BW GOLD LTD
a subsidiary company of Artemis Gold Inc

Blackwater Gold Project

2021 Cumulative Soil and Vegetation Baseline Report

July 2022

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Blackwater Gold Project

2021 Cumulative Soil and Vegetation Baseline Report

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EXECUTIVE SUMMARY

BW Gold Ltd. (BW Gold), a wholly owned subsidiary of Artemis Gold Inc. (Artemis), is proposing to develop the Blackwater Gold Project (the Project), located in central British Columbia (BC) approximately 112 km south of Vanderhoof. This report presents the results of the 2021 baseline sampling program for soil and vegetation tissue metals for the Project, and a comparison of these 2021 data with baseline data collected previously in 2011 and 2012.

Soil and vegetation samples were previously collected and analyzed for metals concentrations by AMEC Foster Wheeler (AMEC) in support of the Project's environmental assessment. The data were found to be limited as they only included select plant species, did not include berry sampling, and samples were analyzed for a smaller suite of metal parameters than would be included in contemporary sampling programs. As a result, additional baseline sampling was undertaken in 2021 with the objective to compare to, and potentially expand, the existing dataset for the Project.

In August 2021, ERM conducted a site reconnaissance over a period of three days, followed by field work to collect soil, plant, and/or berry samples at 38 sites, consisting of 42 soil samples and 135 vegetation (leafy vegetation and berry) samples. Prior to the field trip, consultation with Indigenous nations identified a list of potential plants and berries of interest for sampling. Following the initial site reconnaissance, six plant groups of cultural interest were identified for sampling including soapberry (*Shepherdia canadensis*), black huckleberry (*Vaccinium membranaceum*), blueberry species (*Vaccinium* spp.), willow species (*Salix* spp.), sedge (*Carex* spp.), and Labrador tea (*Rhododendron* spp.).

Sampling sites within the study area were categorized into sub-areas (i.e., near field, mid field, and control), based on their distance from future Project infrastructure. Quality assurance/quality control (QA/QC) procedures were maintained from the time of sample collection, to transport and delivery to the lab, including testing of duplicate samples.

Analytical results for soil were compared to the most conservative of Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines for the Protection of Environmental and Human Health and BC Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Generic and Matrix Numerical Soil Standards to Protect Environmental and Human Health. Plant and berry tissue metal concentrations were compared to the National Research Council (NRC) mineral tolerance limits (MTLs). Summary statistics for the datasets included calculation of the minimum, mean, standard deviation, standard error, 95% upper confidence for the mean (UCLM), median, 95th percentile and maximum concentrations.

For comparison of 2011-2012 data to the 2021 data, the non-parametric (Mann-Whitney) test was used, including a Bonferroni multiple test correction relative to significance levels. Differences among sub-areas were tested for significance using the non-parametric (Kruskal-Wallis) test.

Based on the field observations, information available for the Project, analytical data, and analysis presented in this report, the following presents results and primary findings.

2011-2012 Data

- Twenty soil and 24 vegetation samples were collected by AMEC in 2011-2012 in areas outside of the mine site.
- Mean soil metal concentrations in the study area were less than the BC CSR standards and CCME guidelines. Maximum concentrations of arsenic, cadmium, and molybdenum were above CCME guidelines or BC CSR standards.
- Mean concentrations of aluminum, calcium, magnesium, manganese, and potassium in plants sampled within the study area were greater than MTLs provided by the National Research Council.

2021 Data

- In 2021, 38 sites were sampled in near field, mid field, and control areas, with a total of 42 soil samples, 92 vegetation samples and 43 berry samples.
- Mean soil metal concentrations in the study area were less than the CCME guidelines and BC CSR standards. Maximum concentrations of aluminum, arsenic, iron, manganese, molybdenum, sodium, and sulfur were above the CCME guidelines and BC CSR standards.
- Mean concentrations of manganese and potassium in leafy vegetation were higher than the MTLs, whereas mean concentrations of all parameters in berries were below the MTLs.
- No statistically significant differences were identified in parameter concentrations among sampling sub-areas (near field, mid field, control) in the 2021 soil, willow tissue, or sedge tissue metal datasets.

Comparison of 2011-2012 Data to 2021 Data

- When comparing the 2011-2012 dataset to the 2021 dataset at the LSA-wide level, 50% of parameters (barium, chromium, cobalt, nickel, vanadium, and zinc) had concentrations that were significantly different between the two datasets. At the near field level, only concentrations of vanadium were significantly different between 2011-2012 and 2021 datasets.
- For willow samples, three parameters had significantly different concentrations between the 2011-2012 and 2021 datasets at the LSA-wide level.

In summary, the results of the statistical comparisons indicate that there are significant differences in metal concentrations, particularly in soil, between the historical 2011-2012 dataset compared to the most recent data collected in 2021. Based on these results, and considering the limitations of the 2011-2012 dataset, we do not recommend including the 2011-2012 soil and vegetation analytical results in the cumulative soil and vegetation baseline datasets for this Project. Additional soil and vegetation sampling is recommended to be and will be conducted in 2022 to establish a second full year of baseline data collection.

ACKNOWLEDGEMENTS

This 2021 soil and baseline report was prepared for BW Gold Ltd. by Entia Environmental Consultants (Entia) as a subcontractor to ERM Consultants Canada Ltd. (ERM).

The report was drafted by Dr. Annette Muttray, R.P.Bio. (Entia) with technical review provided by Dr. Lesley Shelley, R.P.Bio (Entia). Support in drafting the report was provided by Kimberly San (ERM). Thilini Surendra (ERM) provided statistical analysis. Fieldwork for the 2021 soil and vegetation program was led by Jennifer Atkins, R.P.Bio. (Sean Sharpe Consultants), with field assistant Glen Cahoose from the Ulkatcho First Nation (UFN). The project manager for the Blackwater Project was Nicole Bishop (ERM), and the Partner in Charge was Nicole Aitken (ERM).

We gratefully acknowledge that the baseline work being conducted as part of this report takes place on the traditional territories of the Lhoosk'uz Dené Nation (LDN), UFN, Skin Tyee Nation and Tsilhqot'in Nation. The proposed Project and work also intersect traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations [CSFNs]) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation and Yekooche First Nation.

CONTENTS

EXECUTIVE SUMMARY I
ACKNOWLEDGEMENTS III
ACRONYMS AND ABBREVIATIONS VII
1. INTRODUCTION 1-1
2. BACKGROUND 2-1
2.1 Project Description 2-1
2.2 Project Area 2-1
2.3 Engagement with Indigenous Groups 2-1
2.4 Objectives 2-2
2.5 Scope of Work 2-3
2.6 2011-2012 Soil and Vegetation Data 2-3
3. METHODOLOGY 3-1
3.1 2021 Field Sampling Program 3-1
3.1.1 Study Design and Location 3-1
3.1.2 Species Selection 3-2
3.1.3 Sampling Methodology 3-2
3.1.3.1 Soil 3-3
3.1.3.2 Vegetation 3-3
3.1.4 Laboratory Analysis 3-6
3.1.5 Quality Assurance/Quality Control (QA/QC) 3-6
3.1.5.1 Field 3-6
3.1.5.2 Laboratory QA/QC 3-7
3.2 Data Analysis 3-8
3.2.1 Applicable Guidelines, Standards, and Benchmarks 3-8
3.2.2 Summary Statistics 3-8
3.2.3 Statistical Comparisons 3-9
3.2.3.1 Objectives 3-9
3.2.3.2 Methods 3-9
4. RESULTS 4-1
4.1 Field Observations 4-1
4.2 Summary Statistics 4-1
4.2.1 2011-2012 Data 4-1
4.2.1.1 Soil 4-1
4.2.1.2 Vegetation 4-4
4.2.2 2021 Data 4-4
4.2.2.1 Soil 4-4
4.2.2.2 Vegetation 4-11
4.2.3 Summary of Analytical Results 4-18
4.3 QA/QC Results for 2021 Soil and Vegetation Data 4-18

4.3.1 Sample Integrity, Storage and Transport....4-18
4.3.2 Relative Percent Difference (RPD)....4-19
4.4 Statistical Comparisons....4-20
4.4.1 Comparison of 2021 Data to 2011-2012 Data....4-20
4.4.1.1 Soil....4-20
4.4.1.2 Vegetation....4-20
4.4.2 Comparison of 2021 Near Field, Mid Field, and Control Areas....4-20
4.4.2.1 Soil....4-20
4.4.2.2 Vegetation....4-21

5. CONCLUSION AND RECOMMENDATIONS....5-1

6. REFERENCES....6-1

APPENDIX A SITE PHOTOGRAPHS

APPENDIX B 2011-2012 SOIL AND VEGETATION TISSUE CHEMISTRY DATA

APPENDIX C CERTIFICATES OF ANALYSIS FOR 2021 SOIL AND VEGETATION TISSUE ANALYSIS

APPENDIX D SUMMARY STATISTICS OF METAL CONCENTRATIONS IN SOIL, PLANTS, AND BERRIES FOR EACH SUB-AREA AND SPECIES

APPENDIX E RESULTS OF RELATIVE PERCENT DIFFERENCE CALCULATIONS FOR 2021 QA/QC SAMPLES

APPENDIX F STATISTICAL ANALYSIS REPORT

List of Tables

Table 2.6-1: Soil and Plant Tissue Samples Collected in 2011-2012 outside the Mine Site Boundary 2-4
Table 2.6-2: Parameter List for Soil Sample Analysis, 2011-2012 2-6
Table 2.6-3: Parameter List for Vegetation Sample Analysis, 2011-2012 2-6
Table 3.1-1: Soil, Plant, and Berry Samples Collected in August 2021 3-4
Table 3.1-2: Parameter List for Soil and Vegetation Sample Analysis, 2021.....3-6
Table 4.2-1: Summary Statistics for Soil, LSA-Wide, 2011-2012 4-2
Table 4.2-2: Summary Statistics for Soil, Near Field Sites, 2011-2012 4-3
Table 4.2-3: Summary Statistics for Vegetation Tissues, LSA-wide, 2011-2012.....4-5
Table 4.2-4: Summary Statistics for Vegetation Tissues, Near Field Sites, 2011-2012.....4-7
Table 4.2-5: Summary Statistics for Soil, LSA-wide, 2021 4-9
Table 4.2-6: Summary Statistics for Soil, Near Field, 2021 4-12
Table 4.2-7: Summary Statistics for Leafy Vegetation, LSA-wide, 2021 4-14
Table 4.2-8: Summary Statistics for Berries, LSA-wide, 2021 4-15
Table 4.2-9: Summary Statistics for Leafy Vegetation, Near Field, 2021 4-16
Table 4.2-10: Summary Statistics for Berries, Near Field, 2021.....4-17
Table 4.3-1: Summary of Parameters and Samples Exceeding Relative Percent Difference of 60% in Soil, Leafy Vegetation, and Berries, 2021 4-19

List of Figures

Figure 1-1: The Blackwater Gold Project Location 1-2
Figure 2.6-1: Soil and Vegetation Sampling Sites outside the Mine Site, 2011-2012.....2-5
Figure 3.1-1: Soil, Plant, and Berry Sampling Locations, 2021 3-5

ACRONYMS AND ABBREVIATIONS

AMEC	AMEC Foster Wheeler
Application/EIS	Application for an Environmental Assessment/Environmental Impact Statement
Artemis	Artemis Gold Inc.
BACI	Before-after-control-impact
BC	British Columbia
BC CSR	British Columbia Contaminated Sites Regulation
BW Gold	BW Gold Ltd.
CCME	Canadian Council of Ministers for the Environment
CFMP	Country Foods Monitoring Plan
CSM	Conceptual site model
CSR	Contaminated Sites Regulation
DQO	Data quality objectives
DL	Detection limit
DS	Decision Statement
EA	Environmental Assessment
EAC	Environmental Assessment Certificate
EMB	Environmental Management Board
ERM	ERM Consultants Canada Ltd.
H_0	Null hypothesis
H_A	Alternate hypothesis
HHRA	Human health risk assessment
Joint MA/EMA Application	Joint Application for *Mines Act*/*Environmental Management Act* Permits
km	Kilometre
LDN	Lhoosk'uz Dené Nation
LSA	Local Study Area
MTLs	Mineral tolerance limit
Mtpa	Million tonnes per annum
New Gold	New Gold Inc.
NRC	National Research Council

POPC	Parameter of potential concern
Project, the	Blackwater Gold Project
QA/QC	Quality assurance/quality control
RPD	Relative percent difference
t/d	Tonnes per day
TSF	Tailings Storage Facility
UCLM	Upper confidence limit of the mean
UFN	Ulkatcho First Nation

1. INTRODUCTION

BW Gold Ltd. (BW Gold), a wholly owned subsidiary of Artemis Gold Inc. (Artemis), is proposing to develop the Blackwater Gold Project (the Project). The Project is located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver (Figure 1-1).

The Project received an Environmental Assessment Certificate (EAC; #M19-01) on June 21, 2019 under the 2002 BC *Environmental Assessment Act* and an Environmental Assessment Decision Statement (DS) on April 15, 2019 under the *Canadian Environmental Assessment Act, 2012* approving the Project with conditions under New Gold Inc (New Gold). In August 2020, Artemis Gold Inc. (Artemis) acquired the mineral tenures, assets and rights in the Blackwater Project and transferred the Certificate to BW Gold under the 2018 *Environmental Assessment Act*. BW Gold has submitted a Joint Application for *Mines Act* / *Environmental Management Act* Permits (the Joint MA/EMA Application) for the Project.

EAC Condition 41 requires the development of a Country Foods Monitoring Plan (CFMP) and Condition 6.11 requires the development of a follow-up program to verify the accuracy of the environmental assessment as it pertains to adverse environmental effects on the health of Indigenous Peoples caused by changes in contaminants of potential concern in water, soil, vegetation, and wildlife (and fish; referred to as follow-up program for human health). A draft of the CFMP has been prepared (ERM 2022) and includes a plan for monitoring of soil, berries, and vegetation for metal concentrations at near field, mid field, and control sites outside of the mine site for the Project. Data collected for soil, berry, and plant samples in support of the CFMP may also be used by other disciplines, such as wildlife or terrestrial ecology.

Soil and vegetation samples were previously collected and analyzed for metals concentrations in 2011-2012 by AMEC Foster Wheeler (AMEC) in support of the Application for an Environmental Assessment /Environmental Impact Statement (Application/EIS; New Gold 2015). The Human Health Risk Assessment (HHRA) Update and Conceptual Site Model (CSM) reports (Entia 2021a, 2021b) identified gaps in the soil and vegetation baseline datasets, noting that not all parameters of concern were measured in the 2011-2012 samples, berries were not sampled, and soil and vegetation samples were not always co-collected. Entia (2021a, 2021b) recommended collection of additional soil, berry, and vegetation samples for metal analysis to support future sampling plan under the CFMP, given the data gaps and length of time since baseline data was collected by AMEC.

Based on the recommendation, additional baseline sampling was conducted in August 2021 to supplement and expand upon the previous data collected in 2011-2012. This cumulative baseline report provides the results of the 2021 baseline soil and vegetation sampling program and compares the results with the soil and vegetation metal concentration data previously collected in 2011-2012.

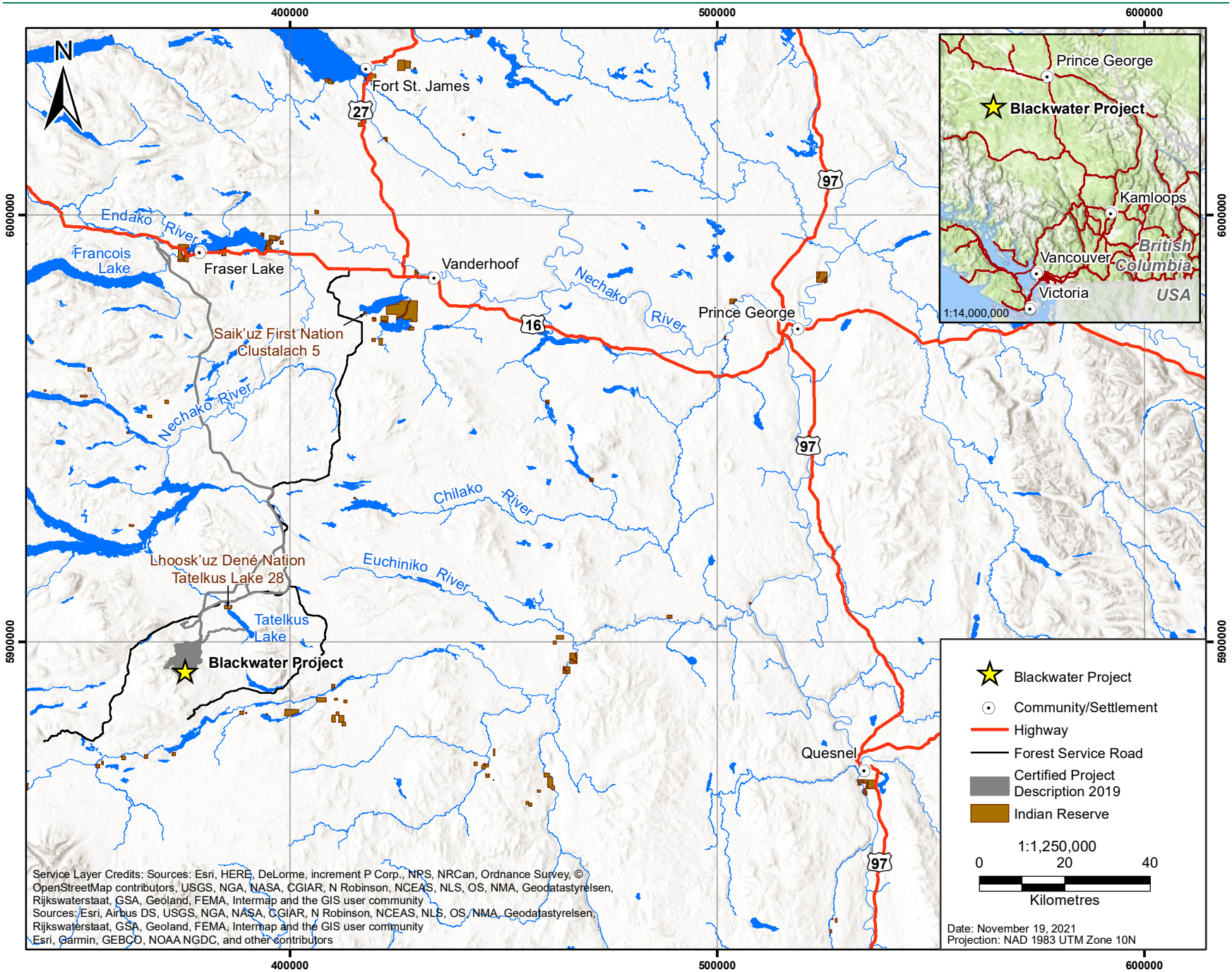

Figure 1-1: The Blackwater Gold Project Location

2. BACKGROUND

2.1 Project Description

The Blackwater Project is a greenfield gold and silver open-pit mine with associated ore processing facilities. Major mine components include a tailings storage facility (TSF), ore processing facilities, waste rock, overburden and soil stockpiles, borrow areas and quarries, water management infrastructure, water treatment plants, accommodation camps and ancillary facilities.

The gold and silver will be recovered into a gold-silver doré product and shipped by air and/or transported by road. Electrical power will be supplied by a new approximately 135 km, 230-kilovolt overland transmission line that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof.

At this time, Project construction is anticipated to take two years. Mine development will be phased with an initial milling capacity of 15,000 tonnes per day (t/d) or 5.5 million tonnes per annum (Mtpa) for the first five years of operation. After the first five years, the milling capacity will increase to 33,000 t/d (12 Mtpa) for the next five-years, and to 55,000 t/d or 20 Mtpa in Year 11 until the end of the 23-year mine life. The Closure phase is from year 24 to approximately year 45, ending when the Open Pit has filled with water and the TSF is allowed to passively discharge to Davidson Creek. The Post-closure phase begins at 46+ years.

2.2 Project Area

The Blackwater mine site is located on the Nechako Plateau, characterized by sub-continental climate including brief warm summers and long cold winters from the influence of cold arctic air. The climate is also influenced by moisture-laden weather systems moving east by way of the low Kitimat ranges of the Coast Mountains of BC. Temperatures range from approximately -40 °C in winter to approximately 32 °C in summer. The mean annual precipitation is estimated to be 564 mm with 62% falling as rain and 38% as snow (KP 2021). Typically, precipitation falls as rain from May to September with snow starting to accumulate in October, and snowmelt occurring between April and May.

The surficial geology within the mine site consists of Quaternary and Holocene deposits. Morainal and glaciofluvial deposits are Quaternary in age with deposition associated with the last glacial period. Holocene sediments comprise materials deposited since the end of glaciation to the present and include fluvial, colluvial, and organic (peat) deposits.

The Project area spans two ecoregions, the Fraser Plateau and Fraser Basin; and three ecosections, the Nazko Upland, Bulkley Basin, and Nechako Lowland. There are three biogeoclimatic variants within the mine site: 1) SBSmc3 (Kluskus Moist Cold Sub-Boreal Spruce variant) at low elevation; 2) ESSFmv1 (Nechako Moist Very Cold Engelmann Spruce-Subalpine Fir variant) at medium and high elevation; and 3) ESSFmvp (Nechako Moist Very Cold Engelmann Spruce-Subalpine Fir Parkland) on top of Mount Davidson.

2.3 Engagement with Indigenous Groups

To support the field program design for summer 2021, BW Gold engaged with UFN and LDN as part of the regular Blackwater Environmental Management Board (EMB) meetings to discuss the proposed sampling plan required by EAC Condition 41. The first discussion on May 5, 2021 included a presentation of the preliminary plans for sampling under the CFMP in the terrestrial (and aquatic) environment. During the meeting, UFN, LDN, and their consultants (Keefer Ecological Services) were invited to provide input and feedback on the preliminary proposed sampling plans.

Draft comments, along with an Excel list of species to target in the CFMP, were provided by UFN and LDN to BW Gold in an Excel tracking spreadsheet on June 2, 2021. Comments pertaining to the terrestrial environment included topics such as:

- Administrative issues (e.g., format and results, timelines, involvement of Health Canada or Indigenous groups other than UFN and LDN, identification of guidance documents);
- Sampling frequency (annually versus every three years) for all environmental media or tissues;
- Arsenic speciation; and
- Soil and plant sampling (e.g., species to target, parts of plants, co-collection of soil, definition of near field vs. mid field vs far field [control] sampling locations).

As a result of the input and feedback received from the UFN and LDN, the proposed sampling plan for soil and vegetation was revised to include:

- Expand scope of soil and vegetation sampling to include three plants (willow species [*Salix* sp.], sedge species [*Carex* sp.], huckleberry [*Vaccinium membranaceum*] leaves/stems] and mixture of berries, with soil co-collected at each site.
- Include arsenic speciation in tissue analysis for country foods eaten by people (e.g., berries) to confirm the assumptions used in the HHRA.

The revised CFMP sampling plans, including the soil and vegetation sampling plan, were presented and discussed at a meeting on July 29, 2021. During the meeting, UFN, LDN, and their consultants (Keefer Ecological Services) provided additional feedback indicating that the species identified for plant and berry sampling did not sufficiently consider culturally important plant species. Soapberry (*Shepherdia canadensis*, also known as soopolallie), Labrador tea [usually *Rhododendron* sp.], and medicinal plants were mentioned as being absent from the preliminary proposed program.

Following the July 29, 2021 meeting, BW Gold adjusted field sampling plans for August 2021 to include additional target species of plants and berries for sampling. Field sampling included three days of initial reconnaissance to identify spatial distribution of key plant and berry species including stinging nettle (*Urtica dioica*), blueberries (*Vaccinium* sp.), soapberries, cow parsnip (*Heracleum lanatum*), nodding onion (*Allium cernuum*), fireweed (*Epilobium angustifolium*), raspberries (*Rubus idaeus*), huckleberries, kinnikinnick (*Arctostaphylos urva-ursi*), willow, yarrow (*Achillea millefolium*), and red osier dogwood (*Cornus stolonifera* or *C. sericea*). After the initial reconnaissance, several plant and berry species were identified that had good spatial distribution across the study area and were targeted for sample collection including willow, sedge, Labrador tea, huckleberry and blueberry, and soapberry (Section 3.1.2).

On October 14, 2021, BW Gold provided UFN/LDN an update on baseline sampling of soil, plants, and berries that was completed in August 2021. These baseline data will form the foundation for future monitoring under the CFMP.

2.4 Objectives

As part of monitoring of potential effects of the Project using a Before-After-Control-Impact (BACI) study design, soil and vegetation baseline studies must be completed to assess background concentrations of metals prior to commencement of substantial Project construction. Such studies are imperative to discern natural vs anthropogenic sources of metal contamination that could negatively impact human health as a result of Project-related effects.

The objectives of this report are to:

- Provide the results of the 2021 soil and vegetation baseline sampling program and summarize baseline soil, vegetation, and berry metal concentration data and statistics currently available for the Project; and
- Compare the results of the 2021 soil and vegetation baseline program to the results of the historical 2011-2012 soil and vegetation baseline program completed in support of the Application/EIS.

If the results of the 2011-2012 and the 2021 baseline programs are sufficiently similar, the results of the 2021 baseline program will be used to expand upon the existing soil and vegetation baseline dataset. Conversely, if results are shown to be significantly different, recent data will be used preferentially over historical data due to limitations in the original 2011-2012 dataset (see Section 1).

Results will be used to inform future development of sampling plans in conjunction with monitoring programs for other environmental media (e.g., water, air, wildlife, fish), the CFMP, the Country Foods Follow-up Program, and the Reclamation and Closure Plan.

2.5 Scope of Work

The primary tasks included in the scope of work for the 2021 soil and vegetation baseline report included:

- Selection of sampling sites within near field, mid field, and control areas;
- Selection of focus plant species for tissue sample collection for berries and vegetation, in consultation with Indigenous groups;
- Develop standardized sampling methodology to be used in 2021 and in future sample collection, including field quality assurance/quality control (QA/QC);
- Provide statistical summary tables of soil and vegetation tissue chemistry data for both 2011-2012 and 2021 datasets;
- Statistical comparison of the 2021 soil and vegetation chemistry data and the 2011-2012 soil and vegetation chemistry data;
- Statistical comparison of the 2021 soil, vegetation, and berry chemistry data collected in each sampling sub-area (near field, mid field, control areas);
- Recommendation as to whether the 2011-2012 data are sufficiently similar to the 2021 data to be included in a cumulative baseline dataset; and
- Recommendations for future data collection.

2.6 2011-2012 Soil and Vegetation Data

In 2011 and 2012, soil and vegetation samples were collected and analyzed for metals concentrations by AMEC in support of the Application/EIS (New Gold 2015). The following soil, vegetation, and human health baseline reports of relevance to these data were submitted as part of the application in 2015:

- Appendix 5.1.3.2 A Soils, Terrain and Surficial Geology 2013 Baseline Report;
- Appendix 5.1.3.2 B AMEC Laboratory Quality Assurance/Control Program; and
- Appendix 9.1A 2011-2012 Environmental Health Baseline Report.

Following the initial application submission, ERM Consultants Canada Ltd. (ERM) was retained to support New Gold on the Project and reviewed comments received on the Application/EIS by Northern Health, BC Centre for Disease Control, and Health Canada. Two memoranda were prepared in May and June 2016, in response to comments related to soils, vegetation and human health data:

- Blackwater Gold Human Health Northern Health Comment Responses #398, #400 and BC Centre for Disease Control Comment Responses #403, #404, #405, #406, #407, #409, #410, #416, #417 (dated May 24, 2016; ERM 2016a); and
- Blackwater Gold Project EA Review Comment-Responses – Response to Health Canada Comment dated March 3, 2016 HC-49 (dated June 29, 2016; ERM 2016b).

As part of AMEC's initial Application/EIS submission, soil and vegetation baseline studies were completed in the Project area in 2011-2012, comprised of a total of 41 sites. Of the 41 sites, 26 sites were located outside of the mine site boundary. Of the 26 sampling sites outside of the mine site boundary, AMEC collected 20 soil samples within the upper 1 m of organic or mineral matter (litter and A/B horizon zones), and 24 vegetation samples consisting of leaves or stems from 4 black huckleberry, 16 willow, and 4 scrub birch. Table 2.6-1 presents a summary of the soil and vegetation sampling data collected in 2011-2012. A figure showing the 2011-2012 soil and vegetation sampling locations is presented in Figure 2.6-1.

Table 2.6-1: Soil and Plant Tissue Samples Collected in 2011-2012 outside the Mine Site Boundary

Common Name	Scientific Name	Number of Samples Collected in 2011-2012				
		Near Field	Mid Field	Control	Road Transect	Total
Black Huckleberry	*Vaccinium membranaceum*	6	0	0	0	6
Scrub Birch	*Betula nana*	1	3	0	0	4
Willow	*Salix* spp.	8	4	2	0	14
Soil	-	13	5	2	0	20

Notes:

Near field is defined as locations within 1 km of the mine site boundary or access road; mid field is defined as locations between 1 km and 5 km away from the mine site boundary or access road; and control sites are defined as locations more than 5 km away from the mine site boundary or access road. The road transect sites sampled in 2021 are a subset of targeted sites on either side of the adjacent Forest Service Road (see Section 3.1.1 for more details).

Analytical data were provided by AMEC to ERM in the form of raw data tables in Excel and laboratory certificates of analysis were not available in native format.

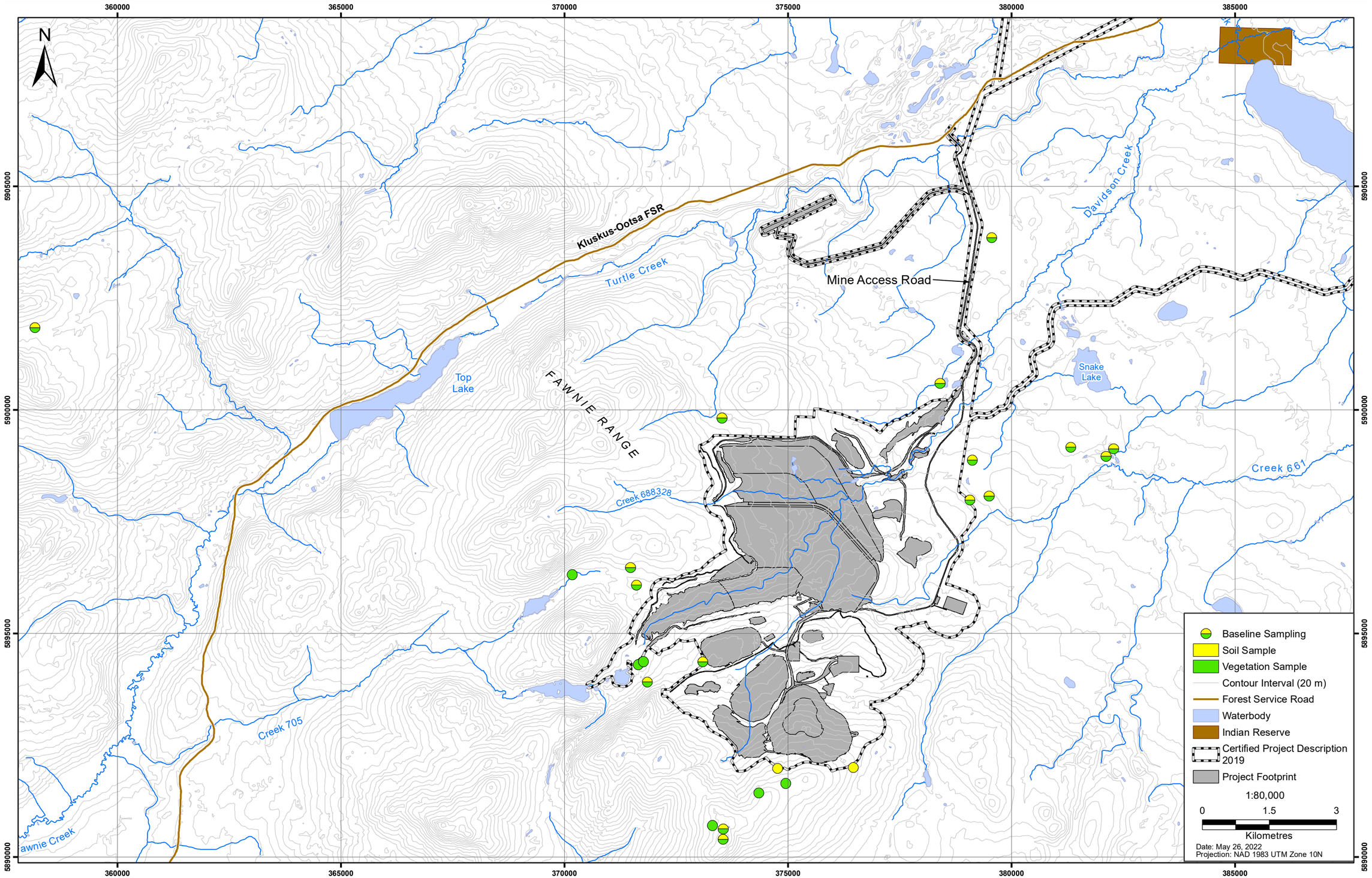

Figure 2.6-1: Soil and Vegetation Sampling SItes outside the Mine Site, 2011-2012

Table 2.6-2 and Table 2.6-3 show the list of metal parameters that were analysed in 2011-2012 in soil and vegetation, respectively.

Table 2.6-2: Parameter List for Soil Sample Analysis, 2011-2012

Antimony (Sb)	Cadmium (Cd)	Lead (Pb)	Selenium (Se)	Vanadium (V)
Arsenic (As)	Chromium (Cr)	Mercury (Hg)	Silver (Ag)	Zinc (Zn)
Barium (Ba)	Cobalt (Co)	Molybdenum (Mo)	Thallium (Tl)	pH
Beryllium (Be)	Copper (Cu)	Nickel (Ni)	Tin (Sn)	

Table 2.6-3: Parameter List for Vegetation Sample Analysis, 2011-2012

Aluminum (Al)	Cadmium (Cd)	Lead (Pb)	Nickel (Ni)	Sodium (Na)	Uranium (U)
Antimony (Sb)	Calcium (Ca)	Lithium (Li)	Phosphorous (P)	Strontium (Sr)	Vanadium (V)
Arsenic (As)	Chromium (Cr)	Magnesium (Mg)	Potassium (K)	Sulphur (S)	Zinc (Zn)
Barium (Ba)	Cobalt (Co)	Manganese (Mn)	Selenium (Se)	Thallium (Tl)	Zirconium (Zr)
Beryllium (Be)	Copper (Cu)	Mercury (Hg)	Silicon (Si)	Tin (Sn)	Moisture
Boron (B)	Iron (Fe)	Molybdenum (Mo)	Silver (Ag)	Titanium (Ti)	

3. METHODOLOGY

3.1 2021 Field Sampling Program

3.1.1 Study Design and Location

The goal of the study design for 2021 soil and vegetation sampling was to collect baseline data that can be used in a BACI analysis in the future to identify if there are Project-related impacts to environmental media or country foods from the Project. The interaction between the period (before or after) and class (impact or control) effects reveals whether any before-after change in the mean parameter concentration that occurred in the near and mid field sites also occurred in the control sites or whether before-after changes at impact sites are potentially related to Project-effects (ERM 2022).

The primary transport pathway of (such as metals) from sources within the mine site to the terrestrial environment is through direct deposition of metal-containing dust onto soil, vegetation, or berry surfaces, or indirect uptake from soil by plants (via root transfer from the soil) and animals (via ingestion of soil and plants). People may be exposed when harvesting and consuming berries and plants, hunt animals that have been exposed via the food chain, incidentally ingest soil, or inhale dust (Entia 2021a, 2021b). As access to the mine site will be controlled during Construction and Operation phases of the Project for safety reasons, collection of soil, vegetation and berry samples primarily took place outside of the mine site in areas accessible by people during Construction and Operations phases.

The local study area (LSA) for the field program consisted of three sub-areas (near field, mid field, control), which were based on the distance of the area from Project-associated sources of dust. Selection of distances from Project dust sources were as follows:

- Near field – Sites located within 1 km of the mine site boundaries or access road. These represent sites closest to the mine site where potential future effects of the Project from dust deposition is highest;
- Mid field – Sites located between 1 to 5 km from the mine site boundaries and greater than 1 km from the access road. These represent sites further away from the mine site which are unlikely to be affected by dust deposition, unless dust is carried further than expected based on air quality modelling; and
- Control – Sites located greater than 5 km from the mine site boundaries and greater than 1 km from the access road. These sites represent control sites that are located at distances unlikely to be affected by the Project.

In addition to these three sub-areas, a series of five sites were sampled as a road transect (three sites on one side of the road, two sites on the other). The sites along the transect were at increasing distance from the road and intended to allow evaluation of potential future effects associated with dust generation from road use.

Selection of the distances from Project dust sources for the three sub-areas was based on the results of air quality modelling completed for the Project (see Appendix 5.2.4A of the Application/EIS) and literature suggesting that most dust deposition occurs within a few hundred meters of the source (Walker and Everett 1987). Baseline meteorological data on prevailing wind direction (generally from the west or southwest) that would influence the location of Project-related fugitive dust deposition (generally to the east or north east of the mine site) was also taken into consideration.

The boundary between near and mid field sites is based on professional judgement and is intended to ensure that potential effects from dust deposition at the near field sites (most likely to be impacted) are not diluted or diminished by considering locations in the mid field sub-area where influence from dust is expected to be lower or negligible. Control sites were selected to be a long distance away (> 5 km) from Project sources of dust, where any influence of the Project would be indistinguishable from baseline concentrations.

3.1.2 Species Selection

Plant species selected for collection were based on input from UFN and LDN, external consultants, and a review of species that were known to occur in the study area and/or were previously sampled in 2011-2012.

During the preparation of the Draft CFMP and to support field program design for summer 2021, BW Gold engaged with UFN, LDN, and their consultants (Keefer Ecological Services Ltd.), as part of Blackwater Environmental Management Board (EMB) meetings to discuss proposed sampling plans, provide input, and feedback on the CFMP. Feedback received from LDN/UFN in relation to the soil and vegetation field program included:

- Input regarding soil and plant sampling (e.g., species to target, parts of plants, co-collection of soil, definition of near field vs. mid field vs far field (control) sampling locations);
- Expanding the scope of vegetation sampling to include a list of culturally-appropriate and important plant and berry species provided by LDN and UFN; and
- Request for arsenic speciation in tissue analysis for country foods eaten by people (e.g., berries).

An initial reconnaissance was conducted over three days in August 2021 whereby an inventory of 21 target plant and berry species (including 13 from the lists provided by UFN and LDN) was completed at potential sampling sites to identify spatial distribution of potential target species. The following factors were taken into consideration in selecting the final species for sampling:

- Ensuring good spatial coverage of the LSA, with the intent of locating an equal number of samples (target of 10 per sub-area) for each plant or berry species at near field, mid field, and control sites;
- Consideration of the potential for plant or berry species to be found at different elevations between the mine site (higher elevation) and the lower elevation areas near Tatelkuz Lake;
- Available ecosystem mapping and data from baseline reports to indicate which species of plants or berries could be found throughout the LSA; and
- Consultation with a botanist and rare plant expert to identify the likelihood that various target plant or berry species would be found in sufficient numbers or with reasonable spatial distribution throughout the LSA.

Following the reconnaissance, the inventory was narrowed down to select three plant and three berry species, considering those that were recommended by Indigenous nations and had a good spatial distribution across the study area:

- Soapberry (*Shepherdia canadensis*);
- Black Huckleberry (*Vaccinium membranaceum*);
- Blueberry species (*Vaccinium* spp.);
- Willow species (*Salix* spp.);
- Sedge (*Carex* spp.); and
- Labrador Tea (*Rhododendron* spp.).

3.1.3 Sampling Methodology

Sampling methodology was developed in consideration of the program objectives and workplan, and followed the British Columbia Field Sampling Manual – Part D: Solids (BC ENV 2020b). All field staff were trained in plant identification and proper sample collection techniques, and changed disposable nitrile

gloves in between sampling, to ensure consistent sample collection and prevent cross-contamination between sampling sites. A hand-held GPS was used to record the location way point of each sampling site.

3.1.3.1 Soil

Composite soil samples were collected within sample plots of approximately 10 x 10 m, depending on the distribution of the co-sampled vegetation species. In sites with sparse vegetation especially when collecting *Vaccinium* spp., sites could be as large as 100 x 100 m.

At each sampling site, a minimum of 3 to 5 sub-samples were collected using a trowel to create a composite soil sample. Samples were taken from the co-collected plant rooting zone (upper 30 cm of the soil horizon[1]) at the base of the plant or within 1 m of a plant or clump of plants. Soil samples were mixed in a plastic mixing bowl to create a composite soil sample for each site. For sites (four) that presented different bio-physical characteristics within the sample plot, two distinct soil samples were collected in each plot, labelled as U (upland) and W (wetland).

A total of 42 soil samples were collected (38 sampling sites, with 4 sites having both a U and W soil sample) and placed in plastic Ziploc bags, foreign and/or coarse debris was removed, and bags were labelled with location, sample ID, and the type of sample collected. Sample ID, sample type, date and time of collection, location waypoint, weather, and other relevant site/collection information was recorded in field notes. Multiple photographs were taken at each sampling site. The trowel was cleaned between sites to prevent cross-contamination of sites.

3.1.3.2 Vegetation

Composite vegetation samples were collected from a minimum of three to five plants (but often more) distributed through an individual sampling site of 10 m^2 when plants were abundant, but up to 100 m^2 when plants were sparse. A minimum of 20 grams of plant tissues or berries per sample were required for submission to the laboratory for standard metals analysis. Where possible, up to 100 g was targeted per site per species to allow for arsenic speciation of samples.

Sedge samples were collected using a clean pair of stainless steel secateurs, which were wiped between samples. Willow and Labrador tea were gathered by hand stripping the leaves from the stem, and berries were picked directly into a ziplock bag. Similar to soil, foreign and/or coarse debris was removed prior to the sample being placed into a plastic sampling bag with the location, date, sample ID and species type.

Plant and berry samples were not washed or wiped prior to placing in the bag to capture dust deposition on surfaces. If samples were wet (e.g., from rain or dew), they were gently shaken to remove excess water prior to the sample being placed into a plastic sampling bag or jar.

While the 2021 field program objective was to collect 10 target species in each of the near field, mid field, and control sub-areas, the final selection of sampling sites was limited by what plant or berry species could be found at a given location. In total, 38 sites were sampled for the 2021 field program, including: leaf tissue for 38 willow, 31 sedge, and 23 Labrador tea samples, and berries for 21 soapberry, 12 huckleberry, and 10 blueberry samples.

Table 3.1-1 presents a summary of the soil, plant, and berry samples collected as part of the 2021 baseline field program. A figure of the soil and vegetation sampling locations are provided in Figure 3.1-1.

[1] This sample represents the surficial soils that could be incidentally ingested by people or wildlife, as well as root zone soils from which plants may take up water and metals.

Table 3.1-1: Soil, Plant, and Berry Samples Collected in August 2021

Common Name	Scientific Name	Rationale for Sampling	Number of Samples Collected in 2021				
			Near Field	Mid Field	Control	Road Transect	Total
Soapberry (Soopolallie)	*Shepherdia canadensis*	No berries collected in 2011-2012 baseline studies. People may consume berries and soapberry was identified as being of interest for Indigenous groups.	5	6	5	5	21
Black Huckleberry	*Vaccinium membranaceum*	No berries collected in 2011-2012 baseline studies. People may consume berries and huckleberry was identified as a potential country food.	5	2	5	0	12
Blueberry	*Vaccinium* spp.	No berries collected in 2011-2012 baseline studies. People may consume berries and blueberry was identified as a potential country food.	3	4	3	0	10
Willow	*Salix* spp.	Commonly sampled in vegetation programs and thought to be a hyperaccumulator of metals. Represents a terrestrial (moist soil) browse species for wildlife and is widely distributed across multiple elevations.	11	11	11	5	38
Sedge	*Carex* spp.	Commonly sampled in vegetation programs. Represents a wetland browse species for wildlife. Commonly located in sensitive environments and may have high metal tolerance.	8	10	8	5	31
Labrador Tea	*Rhododendron* spp.	Identified as a potential country food (medicinal or traditional plant), reasonably wide distribution across sites.	8	9	6	0	23
Soil	-	Collected at all sites	11	13	13	5	42

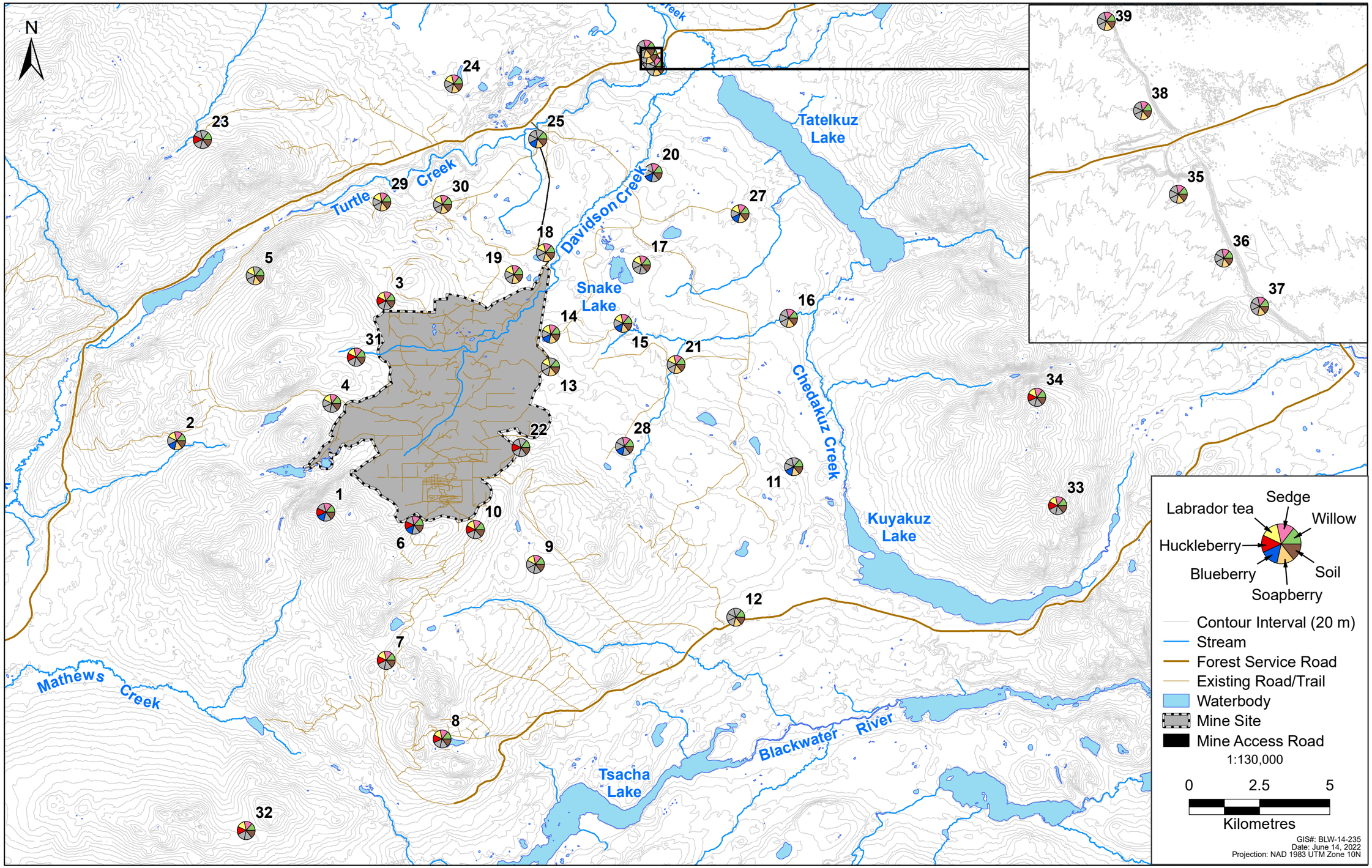

Figure 3.1-1: Soil, Plant and Berry Sampling Locations, 2021

3.1.4 Laboratory Analysis

Following sampling, soil, plant, and berry samples were placed in a cooler with ice packs and submitted to ALS Laboratories (Burnaby, BC) for analysis of trace metals, pH for soil, and moisture content for plants and berries. Arsenic speciation was also completed on berry samples and Labrador tea samples, where sufficient sample volumes were available.

Targeted detection limits for metals were at least 10 times lower than soil quality guidelines or standards, where available, consistent with recommendations for other environmental media in the BC Environmental Laboratory Manual (BC ENV 2020a). The parameter list was slightly different between soil and vegetation analyses, and was based on the metals that ALS includes in standard metal analysis packages for different media (soil *vs*. tissue samples). The parameter list is provided in Table 3.1-2.

Table 3.1-2: Parameter List for Soil and Vegetation Sample Analysis, 2021

Aluminum (Al)	Cadmium (Cd)	Lead (Pb)	Phosphorous (P)	Sulphur[b] (S)	Vanadium (V)
Antimony (Sb)	Calcium (Ca)	Lithium (Li)	Potassium (K)	Tellurium[a] (Te)	Zinc (Zn)
Arsenic (As)	Cesium[a] (Cs)	Magnesium (Mg)	Rubidium[a] (Rb)	Thallium (Tl)	Zirconium (Zr)
Barium (Ba)	Chromium (Cr)	Manganese (Mn)	Selenium (Se)	Tin (Sn)	pH[b]
Beryllium (Be)	Cobalt (Co)	Mercury (Hg)	Silver (Ag)	Titanium (Ti)	Moisture[a]
Bismuth (Bi)	Copper (Cu)	Molybdenum (Mo)	Sodium (Na)	Tungsten[b] (W)	
Boron (B)	Iron (Fe)	Nickel (Ni)	Strontium (Sr)	Uranium (U)	

Notes:

Unless otherwise specified, parameters were measured in both soil and tissue samples.

[a] *Analyzed in plant and berry tissues only.*

[b] *Analyzed in soil only.*

3.1.5 Quality Assurance/Quality Control (QA/QC)

The QA/QC program followed procedures outlined in Part A of the BC Field Sampling Manual (Environment 2013) and Part D of the BC Field Sampling Manual (BC ENV 2020b). The QA/QC program takes into account quality control measures implemented from field collection to delivery of analytical results.

Prior to commencing fieldwork, quantitative limits are set to acceptable levels of error, to verify results were representative of field conditions and evaluate the validity of the data as part of data quality objectives (DQOs). In addition, the laboratory is required to perform internal QA/QC checks to evaluate the data for accuracy, precision, contamination, completeness, and representativeness (BC ENV 2020a).

3.1.5.1 Field

The field program included best management practices for sample collection and handling, and collection of field replicates. As previously discussed in Section 3.1, all staff collecting samples were capable of identifying plant and berry species and trained on appropriate sampling techniques to minimize the potential for cross contamination.

Samples were collected using scissors and trowels that were washed with distilled water and dried with a clean cloth in-between sampling. Nitrile gloves were replaced in between sampling. Samples were placed in new Ziploc bags, and assigned a unique sample ID, consistent with the chain of custody form that must be used for all CALA-certified laboratories.

Field data was reviewed for accuracy after input into a database to minimize the potential for transcription errors.

Upon delivery of samples to the laboratory, receipt confirmation was provided and checked to confirm the analysis to be performed, that sample volume requirements were met, and that there were no sample integrity issues (e.g., exceedance of holding time, broken containers).

Performance of field grab sample collection was evaluated through the collection of field replicates to account for variability introduced by field sampling methodology and environmental heterogeneity. The field sampling program included field split duplicates samples at a target frequency of approximately 10% of total samples collected to evaluate sample heterogeneity and precision of sampling for soil, plant, and berry samples. A total of four soil, eight plant, and three berry duplicate samples were collected as part of the 2021 field program.

To analyze the results, relative percent difference between field split duplicate samples was calculated using Equation 1, as follows[2]:

$$RPD = 100\% \times \left(\frac{|replicate\ 1 - replicate\ 2|}{\frac{replicate\ 1 + replicate\ 2}{2}} \right) \qquad \text{[Equation 1]}$$

As soil and tissue samples are typically more variable than other environmental media such as surface water, an RPD of less than 60% in field split duplicate samples when concentrations are more than five times higher than the method detection limit (DL) typically indicates acceptable precision and sample homogeneity (CCME 2016). Relative percent differences of greater than 60% can indicate sample contamination or sample heterogeneity. RPD calculations were conducted using R, a programming language and software environment for statistical computing (R Development Core Team 2022).

3.1.5.2 Laboratory QA/QC

The quality of the laboratory data provided by ALS was confirmed by QA/QC measurements and protocols to determine and confirm the accuracy, sensitivity, precision, and comparability of the data, and is consistent with the requirements of the British Columbia Environmental Laboratory Manual (BC ENV 2020a), including:

- Method blanks: clean control samples that detected potential contamination during sample preparation and analysis;
- Laboratory duplicates: field-collected samples split at the lab and analyzed separately to determine the methodological precision;
- Laboratory control samples: a clean matrix (i.e., distilled, de-ionized water) spiked with test parameters and used to determine the accuracy of the analysis;
- Reference materials: samples with a known concentration of a parameter produced by a specialized supplier and often used globally to determine the accuracy of an analysis; and
- Matrix spikes: field-collected samples that were spiked with test analytes to determine the accuracy of the analysis in the sample matrix.

Precision and accuracy was controlled through an assessment of ALS's sample duplicate analysis. The CALA-certified laboratory's QA/QC procedures included duplicate testing and calculation of relative percent difference, laboratory blanks, and instrument calibration verification to ensure DQOs were met.

[2] RPD – relative percent difference, Replicate 1 – result, parent sample, Replicate 2 = result, duplicate sample. This equation is shown as RPD = 2 x (A-B)/(A+B) x 100% in Appendix 3 of Part A in BC ENV (2013).

All quality control measurements and protocols were conducted in accordance with the British Columbia Environmental Laboratory Manual (BC ENV 2020a).

3.2 Data Analysis

Data analysis was performed for two sets of data, the 2011-2012 data collected by AMEC and the 2021 data collected by ERM in 2021. The following section provides an overview of the methods used to analyze and interpret the results of the two programs.

3.2.1 Applicable Guidelines, Standards, and Benchmarks

Soil

Soil analytical results were compared against the BC CSR (B.C. Reg. 375/96) Schedule 3.1 Soil Standards and the CCME Canadian Soil Quality Guidelines (CCME 2022). Specifically, this includes:

- CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, based on the lowest of the guidelines for agricultural or for residential / parkland land uses; and
- BC CSR (B.C. Reg. 375/96) Schedule 3.1 (Part 1, Part 2, or Part 3) soil quality standards for protections of human and ecological health based on the lowest (most conservative) standard for reverted wildland or agricultural land uses based on intake of contaminated soil, toxicity to soil invertebrates and plants, or livestock ingesting soil and fodder.

Vegetation

Vegetation tissue metal concentrations were compared to maximum tolerable levels (MTLs) from the National Resource Council (NRC 2005). The NRC developed limits for trace elements and macro minerals for animal tolerances and toxic dietary levels, and published data on 39 minerals, based on production, intake and effects on domestic animal health and ultimately human health (through ingestion of meat, eggs, and milk). As there are no guidelines or standards for vegetation tissue metals for the protection of human or ecological health, the MTLs are used here as a generic benchmark to identify whether concentrations of metals in plant or berry tissue are relatively high (above the MTL) or relatively low (below the MTL).

3.2.2 Summary Statistics

Raw data were compiled in Excel, sourced from certificates of analysis provided by the laboratory for 2021 data and 2011-2012 data provided by AMEC to ERM in Excel. Summary statistics were calculated for soil, plants, and berries in 2011-2012 and 2021 including calculation of the minimum, mean, standard deviation, standard error, 95% upper confidence limit of the mean (UCLM), median, 95th percentile, and maximum, and a count of samples with concentrations greater than the detection limit (DL).

The DL is the lowest detectable concentration, as reported by the laboratory. For the purpose of calculating summary statistics, when metal concentrations in soil or vegetation tissues were below the DL, a value of half the DL was substituted. Although this methodology for addressing what are essentially missing values does not capture the true frequency distribution of the concentrations (Nosal, Legge, and Krupa 2000), assigning values to undetected concentrations in this manner is common practice where it can be assumed the values are not zero but where the level of risk is low enough not to warrant additional statistical analyses (i.e., with regards to human health; U.S. EPA 2000).

For the purposes of calculating summary statistics, duplicate sample concentrations were averaged and evaluated as one sample, represented by the average concentration of the analytical results for

the duplicate and parent sample. Where the halved laboratory detection limit exceeded applicable standards or guideline limits, these parameters were not considered to have exceeded standards.

Samples collected in 2011-2012 from inside the mine site boundaries (to support future reclamation and monitoring plans) were not included in this report.

3.2.3 Statistical Comparisons

3.2.3.1 Objectives

Statistical tests were performed on the historical 2011-2012 dataset and data collected in 2021 to determine if there were significant differences in soil and vegetation metal concentrations between years (i.e., 2011-2012 *vs*. 2021) and among sub-area levels (i.e., near, mid, control). The objective was to answer the following questions:

1. *Has soil quality changed between the 2011-2012 dataset and the 2021 dataset?*

   The null hypothesis (H_0) is that concentrations of metals in soil have not changed between 2011-2012 and 2021. If this were true, there would be no statistically significant differences in metal concentrations between the two datasets.

   The alternative hypothesis (H_A) is that concentrations of metals in soil have changed between 2011-2012 and 2021. If this were true, there would be statistically significant differences in metal concentrations between the two datasets.

2. *Has plant tissue quality changed between the 2011-2012 dataset and the 2021 dataset?*

   The H_0 is that concentrations of metals in plant tissue have not changed between 2011-2012 and 2021. If this were true, there would be no statistically significant differences in metal concentrations between the two datasets.

   The H_A is that concentrations of metals in plant tissue have changed between 2011-2012 and 2021. If this were true, there would be statistically significant differences in metal concentrations between the two datasets.

3. *Are there any differences between the sub-area levels (near field, mid field, control) in soil or vegetation?*

   The H_0 is that concentrations of metals in soil, plant, or berry tissue is similar in all three sub-areas. If this were true, there would be no statistically significant differences in metal concentrations between the sub-areas.

   The H_A is that concentrations of metals in soil, plant tissue, or berry tissue is different between the three sub-areas. If this were true, there would be statistically significant differences in metal concentrations between the sub-areas.

3.2.3.2 Methods

Prior to undertaking statistical analysis, the data was screened and evaluated for inclusion or exclusion from the analysis. Data or statistical comparisons were excluded based on the following criteria:

- In each analysis, highly censored parameters (i.e., where more than 70% of data had concentrations below the DL) were considered unreliable and were not used in the statistical analysis (as per Section 5 of the CFMP; ERM 2022).
- The analysis was performed on parameters with at least eight samples in each group (e.g., near, mid, control). For smaller number of samples ($n < 8$), the power of the statistical tests were considered too low to reliably detect significant differences between or among groups.

- Data collected from ‘Road Transect’ locations in 2021 were removed from the statistical comparisons between sub-areas. These locations were not sampled in 2011-2012, are intended for estimation of dusting effects from road traffic, and only five samples were collected in the road transect.

Data were log transformed to reduce the skewness of the concentration data and were tested for normal distribution. In the majority of scenarios, the assumption of normality was not satisfied, so non-parametric tests were used to compare the 2011-2012 and 2021 data. Statistical tests were selected based on data relevance and objectives. For comparison of 2011-2012 data to the current 2021 data, the non-parametric Mann-Whitney test was used. Differences among sub-groups were compared using the non-parametric Kruskal-Wallis test.

To reduce the number of false positives (Type I error) due to the large number of statistical tests conducted, a Bonferroni correction was applied and each test was assessed relative to reduced significance levels when reviewing the results.

4. RESULTS

4.1 Field Observations

During the field sampling trip in August 2021, the weather was sunny and dry, with high temperatures. Forest fire smoke was present during the week of sampling although visible dust deposition was not noted on the soils, plants, or berries.

Sampling sites were often located in remote areas away from the proposed mine site, and the nearest points of interest included a lake, an old cutblock, roads, and core shack. During the trip, there were no apparent signs of foraging or recent browsing on any of the sites, although remnants of wildlife activity at select sites in the winter (e.g., bear, deer, moose) were observed.

Soil samples were collected from the upper surface of the soil profile, which was generally composed of rocky (gravelly) sand and silt. Wetland sites were mostly organic matter, with some clay and silt.

Generally speaking, plant and berry bushes were more sparse than anticipated, resulting in larger sampling plots ranging from 10 x 10 m to upwards of 100 x 100 m. Lower elevation soapberry berries were often overripe with many berries dried and shriveled on the plant or at the base of plant. *Vaccinium* spp. berries were overall sparse and often under-ripe, while *Vaccinium* spp. plants were abundant in the LSA. The majority of plants observed in the field appeared to be in good condition, with a select few with health issues (e.g., galls on the willows, rust/leaf spots on Laborador tea and sedge). Overall, berries were sparse; however, there were no apparent signs of stress in the plants.

A total of 38 sites were visited (as planned) with the exception of CFMP-SV-026, which could not be sampled due to the presence of bear activity. The inability to obtain a sample at CFMP-SV-026 is not expected to significantly impact the results of the baseline data, as sufficient willow and sedge samples have been collected to support the baseline dataset for 2021 from other sites.

Site photographs and site descriptions are provided in Appendix A.

4.2 Summary Statistics

4.2.1 2011-2012 Data

4.2.1.1 Soil

Raw data for each soil sample collected in 2011-2012 are provided in Appendix B, Table B-1.

Based on the analytical results of the data collected by AMEC 2011-2012, mean concentrations of metals in soil at the LSA-wide level (n = 20) were less than the CCME soil quality guidelines or BC CSR standards (Table 4.2-1). Maximum concentrations of arsenic, cadmium, and molybdenum, as well as 95th percentile concentrations of cadmium and molybdenum, were higher than the more stringent CCME guidelines. The 95% upper confidence limit of the mean (95% UCLM) concentration of arsenic was higher than the CCME guidelines. Soil pH was acidic, with the maximum pH of 5.75 being below the CCME pH guidelines of 6 to 8.

The concentrations of antimony, mercury, selenium, and thallium in all soil samples were less than their respective DLs.

For near field sites (n = 13), maximum concentrations of cadmium exceeded the applicable CCME guidelines, but not the BC CSR standard, whereas the mean concentration was less than the guideline (Table 4.2-2). The highest pH value (5.48) within near field sites was lower than the CCME pH guideline.

Summary statistics for the mid and far field categories were not calculated due to insufficient sample size (n < 8).

Table 4.2-1: Summary Statistics for Soil, LSA-Wide, 2011-2012

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Soil 2011-2012, LSA-wide (n = 20)								Soil Quality Benchmarks (mg/kg)	
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum	CCME[a]	BC CSR[b]
pH (pH units)	0.01	20	**3.38**	**4.76**	0.70	0.16	**5.07**	**4.93**	**5.68**	**5.75**	6 to 8	ns
Antimony	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	20	20
Arsenic	0.5	20	0.7	6.42	17.6	3.94	**14.1**	1.90	11.7	**80.8**	12	25
Barium	1	20	5.0	44.5	28.0	6.26	56.8	39.0	98.1	119	500	400
Beryllium	0.1	13	<0.1	0.260	0.291	0.065	0.390	0.200	0.630	1.2	4	150
Cadmium	0.1	11	<0.1	0.290	0.480	0.107	0.500	0.150	**1.52**	**1.80**	1.4	10
Chromium	0.5	18	<0.5	6.75	6.78	1.52	9.72	4.05	17.3	27.4	64	200
Cobalt	0.5	18	<0.5	2.66	2.29	0.51	3.66	2.00	5.85	8.70	40	25
Copper	0.1	20	1.60	9.08	7.60	1.70	12.4	6.80	22.9	26.9	63	150
Lead	0.5	20	0.50	7.79	4.84	1.08	9.91	7.30	15.7	17.9	70	120
Mercury	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	6.6	0.6
Molybdenum	0.5	16	<0.5	1.97	3.31	0.74	3.42	0.90	**6.16**	**14.8**	5	80
Nickel	0.5	19	<0.5	3.90	3.70	0.83	5.52	2.70	7.48	15.7	45	150
Selenium	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	1	1.5
Silver	0.1	4	<0.1	<0.1	-	-	<0.1	<0.1	0.11	0.2	20	20
Thallium	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	1	2
Tin	0.5	2	<0.5	<0.5	-	-	<0.5	<0.5	0.7	2.5	5	5
Vanadium	0.2	20	0.70	21.1	15.9	3.5	28.1	21.2	40.5	46.2	130	150
Zinc	0.5	20	2.2	18.8	13.0	2.9	24.5	16.9	37.3	42.4	250	200

Notes:

Data provided by AMEC Foster Wheeler.

All concentrations are in mg/kg dry weight unless otherwise stated.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no guideline; ns = no standard

and plants, livestock ingesting soil and fodder, or intake of contaminated soil.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the CCME guideline or BC CSR standard.

[a] *Canadian Council of Ministers of the Environment soil quality guidelines for the protection of environmental and human health for agricultural and parkland uses (CCME 2022).*

[b] *British Columbia Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 Soil Quality Standards, using the most conservative standard for ecological and human health for reverted wildland or agricultural land uses based on toxicity to soil invertebrates.*

Table 4.2-2: Summary Statistics for Soil, Near Field Sites, 2011-2012

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Soil 2011-2012, Near Field (n = 13)								Soil Quality Benchmarks	
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum	CCME[a]	BC CSR[b]
pH (pH units)	13	13	**3.38**	**4.53**	0.72	0.20	**4.93**	**4.62**	**5.37**	**5.48**	6 to 8	ns
Antimony	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	20	20
Arsenic	0.5	13	0.70	2.7	2.3	0.6	4.0	1.9	7.1	8.1	12	25
Barium	1	13	9.0	48.3	32.0	8.9	65.8	40.0	106	119	500	400
Beryllium	0.1	7	<0.1	0.30	0.40	0.10	0.50	0.10	0.80	1.20	4	150
Cadmium	0.1	8	<0.1	0.30	0.50	0.10	0.50	0.20	1.0	**1.8**	1.4	10
Chromium	0.5	12	<0.5	6.2	7.2	2.0	10.1	3.7	17.1	27.4	64	200
Cobalt	0.5	12	<0.5	2.1	1.8	0.5	3.1	1.3	5.1	5.7	40	25
Copper	0.1	13	1.6	8.7	8.2	2.3	13.1	4.7	24.4	26.9	63	150
Lead	0.5	13	1.4	7.7	4.7	1.3	10.3	7.1	16.2	17.9	70	120
Mercury	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	6.6	0.6
Molybdenum	0.5	10	<0.5	1.1	1.1	0.3	1.7	0.8	3.2	4.0	5	80
Nickel	0.5	13	0.6	3.3	2.6	0.7	4.7	1.9	7.0	7.1	45	150
Selenium	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	1	1.5
Silver	0.1	4	<0.1	0.10	-	-	0.10	0.10	0.10	0.20	20	20
Thallium	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	1	2
Tin	0.5	1	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	2.5	5	5
Vanadium	0.2	13	1.0	17.0	14.1	3.9	24.6	12.1	36.3	37.7	130	150
Zinc	0.5	13	5.6	18.7	12.6	3.5	25.6	16.0	39.0	42.4	250	200

Notes:

Data provided by AMEC Foster Wheeler.

All concentrations are in mg/kg dry weight unless otherwise stated.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no guideline; ns = no standard.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the CCME guideline or BC CSR standard.

[a] *Canadian Council of Ministers of the Environment soil quality guidelines for the protection of environmental and human health for agricultural and parkland uses (CCME 2022).*

[b] *British Columbia Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 Soil Quality Standards, using the most conservative standard for ecological and human health for reverted wildland or agricultural land uses based on toxicity to soil invertebrates and plants, livestock ingesting soil and fodder, or intake of contaminated soil.*

4.2.1.2 Vegetation

Raw data for each sample of vegetation collected in 2011-2012 are presented in Appendix B, Table B-2.

Based on the analytical results of the data collected by AMEC 2011-2012 outside of the mine site (*n* = 24), maximum dry weight concentrations of aluminum, barium, calcium, iron, lead, magnesium, manganese, mercury, molybdenum, potassium, silicon, sulfur, and zinc had concentrations higher than the MTLs (Table 4.2-3). Mean dry weight concentrations of aluminum, calcium, magnesium, manganese, and potassium were greater than the NRC MTLs.

Only one of the 24 samples had detectable concentrations of lead, which was higher than the MTL of 10 mg/kg dry weight, while all other samples had non-detectable lead concentrations. The concentrations of beryllium, lithium, and selenium in all plant samples were less than their respective DLs.

The majority of collected vegetation samples were willow leaf samples, and willows are known to accumulate metals from soil, which may bias the statistics for the combined vegetation samples consisting of willow (*n* = 14), scrub birch (*n* = 4), and black huckleberry (*n* = 6) samples. When comparing the maximum concentrations against MTLs for each individual vegetation species, 11 parameters exceeded the MTLs in willow, while only two and seven parameters exceeded the MTLs in scrub birch and black huckleberry, respectively (see raw data in Appendix B).

For near field sites (*n* = 15), maximum dry weight concentrations of aluminum, barium, calcium, iron, lead, magnesium, manganese, mercury, potassium, silicon, sulfur, and zinc were higher than the MTLs (Table 4.2-4). Mean dry weight concentrations of aluminum, calcium, magnesium, manganese, and potassium were greater than the MTLs. Concentrations of beryllium, cobalt, lithium, selenium, and silver were below their respective DLs in plant samples from near field sites.

Summary statistics for the mid field and control areas are not presented as their sample sizes were low.

4.2.2 2021 Data

4.2.2.1 Soil

Raw data for soil samples analyzed in 2021 are provided in Appendix C in the Certificate of Analysis from ALS. Summary statistics in the report are provided at either the LSA-wide or near field sub-area level. Summary stats by area for the mid field and control sub-areas are provided in tables in Appendix D (Tables D-1, D-2, and D-3).

Based on the analytical results of the soil samples collected in 2021, concentrations of metals in soil at a LSA-wide level (*n* = 42; this includes the 5 road transect samples) were less than the CCME soil quality guidelines or BC CSR standards, except for maximum concentrations of aluminum, arsenic, iron, manganese, molybdenum, sodium, and sulfur (Table 4.2-5). The 95th percentile concentrations of arsenic and sulfur were greater than the CCME soil quality guidelines but not the BC CSR standards. Mean concentrations of all metals were below both the CCME soil quality guidelines and BC CSR standards. While the mean pH (5.28) was lower than the CCME benchmark range of 6 to 8, the 95th percentile and maximum pH values were within the range (6.56 and 6.79, respectively).

The DL for sulfur was 1000 mg/kg, which is greater than the CCME soil quality guidelines, and 38 out of 42 soil samples tested for sulfur had concentrations less than the DL. The detection limit for boron (5 mg/kg) was higher than the CCME soil quality guideline or BC CSR standard of 2 mg/kg; boron was below the DL in all 42 samples. The concentrations of tin and tungsten in all samples were also less than their respective DLs.

Table 4.2-3: Summary Statistics for Vegetation Tissues, LSA-wide, 2011-2012

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Vegetation 2011-2012, LSA-wide (*n* = 24)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Max.	
Aluminum	5	24	5.1	**205**	259	53	308	55	**625**	**902**	200
Antimony	0.1	2	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	0.275	70
Arsenic	0.05	6	<0.05	0.12	0.24	0.05	0.21	<0.05	0.74	0.91	30
Barium	0.5	24	0.6	31	33	6.8	45	15	89	**116**	100
Beryllium	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	ng
Boron	2	16	<2	8.7	7.1	1.4	12	8.3	20	25	150
Cadmium	0.02	18	<0.02	0.19	0.25	0.05	0.29	0.09	0.85	0.92	10
Calcium	25	24	3,320	**9,179**	3,252	664	**10,480**	8,730	**13,800**	**14,500**	9,000
Chromium	1	2	<1	<1	-	-	<1	<1	<1	1.9	100
Cobalt	1	1	<1	<1	-	-	<1	<1	<1	1.0	25
Copper	0.4	22	<0.4	6.1	3.7	0.8	7.6	6.5	11.6	13.7	15
Iron	5	24	30	130	142	29	187	80	491	549	500
Lead	3	1	<3	<3	-	-	<3	<3	<3	12.8	10
Lithium	0.4	0	<0.4	<0.4	-	-	<0.4	<0.4	<0.4	<0.4	25
Magnesium	20	24	1,810	**2,728**	672	137	**2,996**	**2555**	**3936**	**4030**	2,400
Manganese	0.5	24	19	**1,076**	1,068	218	**1,503**	**451**	**3027**	**3500**	400
Mercury	0.02	14	<0.02	0.11	0.18	0.04	0.19	<0.02	**0.44**	**0.67**	0.2
Molybdenum	0.02	20	<0.02	2.26	7.42	1.51	**5.23**	0.333	4.57	**36.7**	5
Nickel	2	4	<2	<2	-	-	<2	<2	3.01	3.7	50
Phosphorus	10	24	1,020	2,639	960	196	3,023	2,360	4,188	4,830	6,000
Potassium	30	24	7,110	**12,249**	3,870	790	**13,797**	**11,450**	**17,595**	**23,500**	10,000
Selenium	1	0	<1	<1	-	-	<1	<1	<1	<1	2
Silicon	4	24	325	850	429	88	1,022	672	1,632	**2,040**	2,000
Silver	0.3	0	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	100

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Vegetation 2011-2012, LSA-wide (*n* = 24)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Max.	
Sodium	50	6	<50	<50	-	-	64	<50	104	234	ng
Strontium	0.4	24	10.8	55.2	36.5	7.4	69.8	51.1	106	127	1,000
Sulphur	20	24	990	2,061	610	125	2,305	2,000	**3,128**	**3,170**	3,000
Thallium	0.02	4	<0.02	0.024	0.055	0.011	0.046	0.010	0.039	0.28	ng
Tin	1	1	<1	<1	-	-	<1	<1	<1	7.6	100
Titanium	1	23	<1	9.5	13.5	2.8	14.9	3.0	35.8	57.0	ng
Uranium	0.04	2	<0.02	<0.02	-	-	0.027	<0.02	0.045	0.060	100
Vanadium	0.6	2	<0.6	<0.6	-	-	<0.6	<0.6	0.64	1.2	5
Zinc	0.3	24	17	103	72	15	132	102	193	**318**	250
Zirconium	0.1	13	<0.1	0.38	0.54	0.11	0.59	0.15	1.45	2.20	ng

Notes:

Data provided by AMEC Foster Wheeler.

*Vegetation samples included willow (*Salix *sp.; n = 14), huckleberry leaves (*Vaccinium membranaceum*, n = 6), and scrub birch (*Betula nana*, n = 4).*

All concentrations are in mg/kg dry weight. Moisture content was not reported by AMEC.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no mineral tolerance limit (MTL) for this parameter.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the applicable MTL.

Mineral tolerance limits are from the National Research Council (NRC 2005) and are the lowest MTL of metals for rodents, poultry, swine, horses, cattle and sheep.

Table 4.2-4: Summary Statistics for Vegetation Tissues, Near Field Sites, 2011-2012

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Vegetation 2011-2012, Near Field (*n* = 15)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Max.	
Aluminum	5	15	5.1	287	291	75	435	128	**709**	**902**	200
Antimony	0.1	1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	0.10	70
Arsenic	0.05	4	<0.05	0.16	0.30	0.08	0.31	<0.05	0.85	0.91	30
Barium	0.5	15	3.10	40.6	38.5	9.94	60.1	15.0	97.5	**116**	100
Beryllium	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	ng
Boron	2	12	<2	11.2	7.34	1.90	14.9	12.0	21.5	25.0	150
Cadmium	0.02	9	<0.02	0.16	0.25	0.06	0.29	0.060	0.63	0.91	10
Calcium	25	15	4,460	**9,367**	2,979	769	**10,875**	8,890	**14,010**	**14,500**	9,000
Chromium	1	1	<1	<1	-	-	<1	<1	<1	1.90	100
Cobalt	1	0	<1	<1	-	-	<1	<1	<1	<1	25
Copper	0.4	14	<0.4	6.78	4.02	1.04	8.81	6.50	12.2	13.7	15
Iron	5	15	31.0	154	165	43	237	106	**534**	**549**	500
Lead	3	1	<3	<3	-	-	<3	<3	<3	12.8	10
Lithium	0.4	0	<0.4	<0.4	-	-	<0.4	<0.4	<0.4	<0.4	25
Magnesium	20	15	1,900	**2,853**	670	173	**3,192**	**2,625**	**3,988**	**4,030**	2,400
Manganese	0.5	15	108	**1,260**	1,155	298	**1,844**	**1,040**	**3,213**	**3,500**	400
Mercury	0.02	10	<0.02	0.11	0.19	0.05	0.20	0.020	**0.51**	**0.67**	0.2
Molybdenum	0.02	12	<0.02	0.74	1.27	0.33	1.39	0.28	2.80	4.99	5
Nickel	2	1	<2	<2	-	-	<2	<2	<2	3.70	50
Phosphorus	10	15	1,020	2,502	976	252	2,995	2,285	4,095	4,830	6,000
Potassium	30	15	7,110	**13,471**	4,199	1,084	**15,596**	**13,600**	**19,440**	**23,500**	10,000
Selenium	1	0	<1	<1	-	-	<1	<1	<1	<1	2
Silicon	4	15	325	923	470	121	1,161	753	1,767	**2,040**	2,000
Silver	0.3	0	0.15	0.15	-	-	0.15	0.15	0.15	0.15	100

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Vegetation 2011-2012, Near Field (*n* = 15)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Max.	
Sodium	50	5	25	53	56	14	81	25	144	234	ng
Strontium	0.4	15	11	52	38	10	71	49	111	127	1,000
Sulphur	20	15	990	2,132	554	143	2,413	2,040	**3,093**	**3,170**	3,000
Thallium	0.02	4	<0.02	0.03	0.07	0.02	0.07	<0.02	0.11	0.28	ng
Tin	1	1	<1	<1	-	-	<1	<1	<1	7.6	100
Titanium	1	15	1.0	12.3	15.7	4.1	20.2	8.0	43.7	57.0	ng
Uranium	0.04	2	<0.04	<0.04	-	-	<0.04	<0.04	0.05	0.06	100
Vanadium	0.6	2	<0.6	<0.6	-	-	<0.6	<0.6	0.85	1.20	5
Zinc	0.3	15	17	93	79	20	133	89	204	**318**	250
Zirconium	0.1	9	<0.1	0.36	0.44	0.11	0.59	0.20	1.26	1.50	ng

Notes:

Data provided by AMEC Foster Wheeler.

*Vegetation samples included willow (*Salix *sp.; n = 8), huckleberry leaves (*Vaccinium membranaceum*, n = 6), and scrub birch (*Betula nana*, n = 1).*

All concentrations are in mg/kg dry weight. Moisture content was not reported by AMEC.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no mineral tolerance limit (MTL) for this parameter.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the applicable MTL.

Mineral tolerance limits are from the National Research Council (NRC 2005) and are the lowest MTL of metals for rodents, poultry, swine, horses, cattle and sheep.

Table 4.2-5: Summary Statistics for Soil, LSA-wide, 2021

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Soil 2021, LSA-wide (*n* = 42)								Soil Quality Benchmarks	
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	CCME[a]	BC CSR[b]
pH (pH units)	0.1	42	3.96	5.28	0.73	0.11	5.50	5.17	6.56	6.79	6 to 8	ns
Aluminum	50	42	164	13,160	8,142	1,256	15,623	11,600	28,455	43,700	ng	40,000
Antimony	0.1	41	<0.1	0.315	0.167	0.026	0.365	0.275	0.559	0.920	20	20
Arsenic	0.1	42	0.71	5.1	6.1	0.9	6.9	3.4	15.9	35.0	12	25
Barium	0.5	42	32.1	101	67	10	121	75	230	308	500	400
Beryllium	0.1	38	<0.1	0.328	0.228	0.035	0.397	0.260	0.802	1.13	4	150
Bismuth	0.2	2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	1.15	ng	ns
Boron	5	0	<5	<5	-	-	<5	<5	<5	<5	2	2
Cadmium	0.02	42	0.035	0.167	0.156	0.024	0.214	0.113	0.557	0.674	1	10
Calcium	50	42	800	5,163	5,565	859	6,846	3,025	18,265	24,350	ng	ns
Chromium	0.5	41	<0.5	15.1	9.7	1.5	18.1	13.9	26.2	47.5	64	200
Cobalt	0.1	42	1.22	4.91	2.50	0.39	5.66	4.25	8.18	10.4	40	25
Copper	0.5	42	2.42	9.85	7.50	1.16	12.1	8.43	28.6	35.5	63	150
Iron	50	42	3,466	19,016	8,442	1,303	21,570	18,500	31,775	51,200	ng	35,000
Lead	0.5	41	<0.5	6.07	3.02	0.47	6.98	5.69	11.9	13.6	70	120
Lithium	2	39	<2	5.90	3.48	0.54	6.96	5.88	10.6	17.4	ng	30
Magnesium	20	42	666	2,649	1,493	230	3,100	2,325	4,629	7,550	ng	ns
Manganese	1	42	48	748	979	151	1,044	367	1,958	4,880	ng	2,000
Mercury	0.005	42	0.0124	0.0460	0.0267	0.0041	0.0541	0.0408	0.0947	0.106	7	1
Molybdenum	0.1	42	0.40	1.10	1.38	0.21	1.51	0.74	2.17	9.24	5	80
Nickel	0.5	42	0.88	9.37	6.20	0.96	11.3	8.19	18.6	26.8	45	150
Phosphorus	50	42	280	746	286	44	833	695	1,200	1,250	ng	ns

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Soil 2021, LSA-wide (*n* = 42)								Soil Quality Benchmarks	
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	CCME[a]	BC CSR[b]
Potassium	100	42	220	658	270	42	740	635	1058	1820	ng	ns
Selenium	0.2	7	<0.2	<0.2	-	-	<0.2	<0.2	0.531	0.620	1	2
Silver	0.1	20	<0.1	0.160	0.210	0.032	0.223	<0.1	0.537	1.00	20	20
Sodium	50	41	<50	105	48	7	120	98	184	316	ng	200
Strontium	0.5	42	9.5	38.0	31.6	4.9	47.5	24.0	95.9	144	ng	9500
Sulfur	1000	4	<1000	<1000	-	-	<1000	<1000	1193	1400	500	2000
Thallium	0.05	36	<0.05	0.0814	0.0448	0.0069	0.095	0.0750	0.195	0.233	1	2
Tin	2	0	<2	<2	-	-	<2	<2	<2	<2	5	5
Titanium	1	42	5.70	652	474	73	795	633	1536	2170	ng	ns
Tungsten	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	ng	15
Uranium	0.05	41	<0.05	1.04	2.12	0.33	1.68	0.40	5.26	12.0	23	35
Vanadium	0.2	42	0.6	44.0	19.5	3.0	49.9	42.3	71.6	98.5	130	150
Zinc	2	42	4.0	53.8	35.1	5.4	64.4	44.9	128	152	250	200
Zirconium	1	30	<1	2.02	1.69	0.26	2.53	1.53	4.30	8.10	ng	ns

Notes:

All concentrations are in mg/kg dry weight unless otherwise stated.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the CCME guideline or BC CSR standard.

[a] *Canadian Council of Ministers of the Environment soil quality guidelines for the protection of environmental and human health for agricultural and parkland uses (CCME 2022).*

[b] *British Columbia Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 Soil Quality Standards, using the most conservative standard for ecological and human health for reverted wildland or agricultural land uses based on toxicity to soil invertebrates and plants, livestock ingesting soil and fodder, or intake of contaminated soil.*

For near field sites (*n* = 11), parameter concentrations did not exceed CCME soil quality guidelines or BC CSR standards, except for maximum concentrations of aluminum and 95th percentile and maximum concentrations of arsenic (Table 4.2-6). The concentrations of bismuth, boron, sulfur, tin, and tungsten in all samples were less than their respective DLs. The maximum soil pH value was lower than the CCME pH range of 6 to 8.

4.2.2.2 Vegetation

Raw data for plant and berry samples analyzed in 2021 are provided in Appendix C in the Certificate of Analysis from ALS. For compiling summary statistics in the report, samples were grouped into either leafy vegetation consisting of willow, sedge, and Labrador tea or berries consisting of soapberry, huckleberry, and blueberry. Summary stats by area for each species of plant or berry is provided in tables in Appendix D (Tables D-4 to D-30).

Based on the analytical results for vegetation samples collected in August 2021, concentrations of metals in leafy vegetation tissues LSA-wide were less than the MTLs, except for maximum concentrations of aluminum, barium, calcium, magnesium, manganese, molybdenum, and potassium in foliage samples (*n* = 92; Table 4.2-7), and maximum concentrations of aluminum, manganese, molybdenum, and potassium in berry samples (*n* = 43; Table 4.2-8). Mean concentrations of manganese and potassium in leafy vegetation were also higher than the MTLs, whereas mean parameter concentrations in berries were below the MTLs. The concentrations of bismuth and zirconium in all leafy vegetation samples were below their respective DLs (Table 4.2-7). The concentrations of beryllium, bismuth, lithium, and tellurium in all berry samples were less than their respective DLs (Table 4.2-8).

For the near field sites, maximum concentrations of calcium, manganese, and potassium were greater than the MTLs in leafy vegetation samples (*n* = 27; Table 4.2-9). Maximum concentrations of aluminum, manganese, and potassium were higher than the MTLs in berry samples (*n* = 13; Table 4.2-10). The mean concentration of these parameters in leafy vegetation samples was less than the MTL, except for manganese and potassium. Mean concentrations in berries were below all MTLs. The concentrations of beryllium, bismuth, lithium, and tellurium in near field leafy vegetation samples were less than their respective DLs (Table 4.2-9). The concentrations of beryllium, bismuth, lithium, selenium, and tellurium in near field berry samples were less than their respective DLs (Table 4.2-10).

Arsenic speciation was completed on all samples of Labrador tea, soapberries, huckleberries, and blueberries, except for two samples of huckleberries where there wasn't enough sample volume to allow this analysis. Generally, arsenic speciation typically yielded concentrations below DLs for each of the arsenic species. No individual arsenic species were detected in Labrador tea (Table 4.2-7). Out of 41 berry samples, total arsenic was detected in only 6 berry samples; arsenate was detected in 4 samples and arsenite was detected in 3 samples, all at concentrations only slightly higher than the DLs (Table 4.2-8); organic arsenic species were not detected in berries. While the results suggest that arsenic is present in berries only in the inorganic form, because the concentrations of arsenate and arsenite were so close to detection limits there is uncertainty in this conclusion.

Since the various arsenic species were not regularly detected and, when they were detected, concentrations were close to DLs, arsenic speciation is not recommended in future plant or berry tissue analyses.

Table 4.2-6: Summary Statistics for Soil, Near Field, 2021

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Soil 2021, Near Field (*n* = 11)								Soil Quality Benchmarks	
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	CCME[a]	BC CSR[b]
pH (pH units)	0.1	11	3.96	4.70	0.55	0.17	5.03	4.89	5.44	5.68	6 to 8	ns
Aluminum	50	11	4,640	12,821	11,195	3,375	19,437	8,080	30,900	**43,700**	ng	40,000
Antimony	0.1	11	0.18	0.25	0.05	0.01	0.28	0.25	0.32	0.34	20	20
Arsenic	0.1	11	1.27	6.04	9.73	2.93	11.8	2.95	**21.1**	**35.0**	12	25
Barium	0.5	11	32.1	69.5	56.2	17.0	103	44.2	176	206	500	400
Beryllium	0.1	9	<0.1	0.328	0.35	0.11	0.535	0.150	0.990	1.13	4	150
Bismuth	0.2	0	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	ng	ns
Boron	5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	2	2
Cadmium	0.02	11	0.038	0.136	0.120	0.036	0.207	0.118	0.332	0.473	1	10
Calcium	50	11	800	2,615	1,719	518	3,630	1,880	5,345	5,800	ng	ns
Chromium	0.5	11	6.53	14.8	11.7	3.52	21.7	10.6	35.1	46.6	64	200
Cobalt	0.1	11	1.26	3.96	2.95	0.89	5.70	3.00	9.04	10.4	40	25
Copper	0.5	11	3.22	8.66	9.51	2.87	14.3	4.88	24.3	35.5	63	150
Iron	50	11	9,700	15,177	4,162	1,255	17,637	14,500	21,550	22,200	ng	35,000
Lead	0.5	11	4.20	7.31	3.15	0.95	9.17	6.37	12.6	13.3	70	120
Lithium	2	11	2.10	5.38	3.90	1.18	7.69	4.30	11.8	15.5	ng	30
Magnesium	20	11	666	1908	1207	364	2,622	1,500	3,840	4,190	ng	ns
Manganese	1	11	93	475	634	191	849	216	1,745	1,830	ng	2,000
Mercury	0.005	11	0.0179	0.0420	0.0243	0.0073	0.0564	0.0386	0.0882	0.0948	7	1
Molybdenum	0.1	11	0.510	0.782	0.285	0.086	0.950	0.690	1.26	1.44	5	80
Nickel	0.5	11	2.18	7.24	6.90	2.08	11.3	4.60	19.0	25.2	45	150
Phosphorus	50	11	280	584	308	93	766	506	1,075	1,160	ng	ns

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Soil 2021, Near Field (*n* = 11)								Soil Quality Benchmarks	
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	CCME[a]	BC CSR[b]
Potassium	100	11	390	617	255	77	768	510	1080	1100	ng	ns
Selenium	0.2	1	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	0.270	1	2
Silver	0.1	7	0.050	0.178	0.137	0.041	0.259	0.160	0.400	0.480	20	20
Sodium	50	11	57	104	43	13	130	85	180	184	ng	200
Strontium	0.5	11	9.50	25.0	16.6	5.0	34.8	16.4	51.2	60.7	ng	9,500
Sulfur	1000	0	<1000	<1000	0	0	<1,000	<1,000	<1,000	<1,000	500	2,000
Thallium	0.05	10	<0.05	0.0924	0.046	0.014	0.120	0.0870	0.164	0.207	1	2
Tin	2	0	<2	<2	-	-	<2	<2	<2	<2	5	5
Titanium	1	11	141	558	249	75	705	468	908	987	ng	ns
Tungsten	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	ng	15
Uranium	0.05	11	0.301	1.10	1.77	0.53	2.14	0.448	3.83	6.37	23	35
Vanadium	0.2	11	26.5	39.1	8.7	2.6	44.2	39.1	51.0	55.5	130	150
Zinc	2	11	18.6	38.3	19.3	5.8	49.7	34.1	72.6	78.9	250	200
Zirconium	1	6	<1	1.50	1.09	0.33	2.14	1.20	3.25	3.30	ng	ns

Notes:

All concentrations are in mg/kg dry weight unless otherwise stated.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the CCME guideline or BC CSR standard.

[a] *Canadian Council of Ministers of the Environment soil quality guidelines for the protection of environmental and human health for agricultural and parkland uses (CCME 2022).*

[b] *British Columbia Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 Soil Quality Standards, using the most conservative standard for ecological and human health for reverted wildland or agricultural land uses based on toxicity to soil invertebrates and plants, livestock ingesting soil and fodder, or intake of contaminated soil.*

Table 4.2-7: Summary Statistics for Leafy Vegetation, LSA-wide, 2021

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Leafy Vegetation 2021, LSA-wide (*n* = 92)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	
Moisture (%)	0.5	92	50.4	62.2	5.8	0.6	63.3	62.7	70	74.0	ng
Aluminum	2	91	<2	28.2	42.1	4.4	36.8	13.0	98.8	240	200
Antimony	0.01	1	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	0.047	70
Arsenic	0.02	42	<0.02	0.039	0.071	0.007	0.053	<0.02	0.133	0.585	30
Barium	0.05	92	0.93	45.4	29.5	3.07	51.4	41.8	98.2	119	100
Beryllium	0.01	5	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	0.053	ng
Bismuth	0.01	0	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	0.0050	500
Boron	1	92	1.85	12.21	8.34	0.87	13.9	10.35	26.9	39.9	150
Cadmium	0.005	63	<0.005	0.404	0.722	0.0753	0.552	0.0158	1.98	3.59	10
Calcium	20	92	3250	9322	5,435	567	10,433	6,585	19,270	23,800	10,000
Cesium	0.005	88	<0.005	0.69	3.73	0.39	1.45	0.047	1.17	32.6	ng
Chromium	0.05	49	<0.05	0.071	0.074	0.008	0.087	0.052	0.262	0.346	100
Cobalt	0.02	71	<0.02	0.286	0.554	0.0577	0.400	0.0710	1.07	4.50	25
Copper	0.1	92	<0.1	3.20	1.27	0.13	3.46	3.26	4.94	6.55	15
Iron	3	92	8.2	75.9	75.5	7.9	91.3	49.8	214	462	500
Lead	0.02	18	<0.02	<0.02	-	-	<0.02	<0.02	0.0462	0.0980	10
Lithium	0.5	2	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	1.26	25
Magnesium	2	92	506	2194	1293	135	2,458	1755	4,470	7,480	2,400
Manganese	0.05	92	38	581	542	57	692.3	377	1,742.5	2,240	400
Mercury	0.005	86	<0.005	0.00870	0.00299	0.00031	0.00931	0.00870	0.0134	0.0207	0.2
Molybdenum	0.02	92	0.0630	1.58	2.33	0.243	2.06	0.683	5.37	12.0	5
Nickel	0.2	48	<0.2	0.489	0.646	0.067	0.621	0.208	1.96	2.99	50
Phosphorus	10	92	768	2196	968	101	2393	1930	3985	5510	6,000
Potassium	20	92	4,940	12,383	5144	536	13,435	12,050	20,380	24,500	10,000
Rubidium	0.05	92	2.28	12.6	13.3	1.38	15.3	8.98	36.1	95.0	200
Selenium	0.05	4	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	0.122	3
Silver	0.005	18	<0.005	<0.005	-	-	<0.005	<0.005	0.00961	0.0236	100
Sodium	20	5	<20	<20	-	-	<20	<20	15.4	158	ng
Strontium	0.05	92	5.93	57.3	44.2	4.61	66.4	40.1	137	216	1,000
Tellurium	0.02	1	<0.02	<0.02	-	-	<0.02	<0.02	<0.02	0.0230	ng
Thallium	0.002	30	<0.002	0.0029	0.0051	0.0005	0.0039	<0.002	0.0082	0.0412	ng
Tin	0.1	16	<0.1	<0.1	-	-	<0.1	<0.1	0.212	0.430	100
Titanium	0.25	83	<0.25	1.22	2.03	0.21	1.6	0.59	5.36	14.0	ng
Uranium	0.002	10	<0.002	<0.002	-	-	<0.002	<0.002	0.004295	0.0125	100
Vanadium	0.1	10	<0.1	<0.1	-	-	0.120	<0.1	0.356	0.960	5
Zinc	0.5	92	8.74	50.19	42.7	4.45	58.9	31.0	150	197	300
Zirconium	0.2	0	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	ng
Arsenic Speciation (*n* = 23, in Labrador tea)											
Arsenate [As V]	0.025	0	<0.025	<0.025	-	-	<0.025	<0.025	<0.025	<0.025	ng
Arsenite [As III]	0.0050	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
Arsenobetaine [AsB], (as As)	0.0050	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
Arsenocholine [AsC], (as As)	0.0050	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
Dimethylarsinic acid [DMA], (as As)	0.0050	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
Monomethylarsonic acid [MMA], (as As)	0.0050	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng

Notes:

Leafy vegetation includes samples of willow (Salix sp.; n = 38), sedge (Carex sp.; n = 31), and Labrador tea (Rhododendron sp.; n = 23).

All concentrations are in mg/kg dry weight unless otherwise noted.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no mineral tolerance limit (MTL) for this parameter.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the applicable MTL.

Mineral tolerance limits are from the National Research Council (NRC 2005) and are the lowest maximum tolerable concentration of metals for rodents, poultry, swine, horses, cattle and sheep.

Table 4.2-8: Summary Statistics for Berries, LSA-wide, 2021

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Berries 2021, LSA-wide (*n* = 43)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	
Moisture (%)	0.5	43	72.3	82.2	4.6	0.7	83.6	83.1	89.0	89.7	ng
Aluminum	2	41	<2	28.7	41.7	6.4	41.1	19.6	60.0	**268**	200
Antimony	0.01	1	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	0.011	70
Arsenic	0.02	6	<0.02	<0.02	-	-	<0.02	<0.02	0.0247	0.088	30
Barium	0.05	43	0.60	10.15	9.44	1.44	13.0	9.58	24.9	42.2	100
Beryllium	0.01	0	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	ng
Bismuth	0.01	0	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	500
Boron	1	43	3.00	9.72	3.04	0.46	10.6	9.60	13.8	16.5	150
Cadmium	0.005	36	<0.005	0.0097	0.0066	0.0010	0.0117	0.0093	0.0211	0.0360	10
Calcium	20	43	573	1,089	376	57	1,202	1,010	1,825	2,260	10,000
Cesium	0.005	28	<0.005	0.129	0.451	0.069	0.264	0.00900	0.213	2.26	ng
Chromium	0.05	12	<0.05	0.073	0.137	0.021	0.114	<0.05	0.241	0.834	100
Cobalt	0.02	11	<0.02	<0.02	-	-	<0.02	<0.02	0.033	0.095	25
Copper	0.1	43	3.00	5.13	1.03	0.16	5.44	5.26	6.38	8.79	15
Iron	3	43	11.8	31.7	43.7	6.7	44.7	23.1	47.1	304	500
Lead	0.02	8	<0.02	<0.02	-	-	0.0307	<0.02	0.0344	0.252	10
Lithium	0.5	0	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	25
Magnesium	2	43	447	642	116	18	677	624	840	965	2,400
Manganese	0.05	43	9	156	158	24	204	116	**439**	**534**	400
Mercury	0.005	4	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	0.014	0.2
Molybdenum	0.02	43	0.10	1.11	0.90	0.14	1.38	1.13	2.15	**5.09**	5
Nickel	0.2	35	<0.2	1.38	1.35	0.21	1.79	0.65	3.09	6.27	50
Phosphorus	10	43	1,200	1,881	270	41	1,961	1,860	2314	2480	6,000
Potassium	20	43	5,180	9,447	1,795	274	9,984	9,420	**12,110**	**13,400**	10,000
Rubidium	0.05	43	4.02	13.75	11.23	1.71	17.1	8.80	37.4	53.9	200
Selenium	0.05	6	<0.05	<0.05	-	-	<0.05	<0.05	0.110	0.169	3
Silver	0.005	18	<0.005	0.0054	0.0041	0.0006	0.0066	<0.005	0.0125	0.0186	100
Sodium	20	9	<20	26.4	57.7	8.80	43.6	<20	56.3	357	ng
Strontium	0.05	43	1.59	5.12	1.86	0.28	5.67	4.78	7.68	10.1	1,000
Tellurium	0.02	0	<0.02	<0.02	-	-	<0.02	<0.02	<0.02	<0.02	ng
Thallium	0.002	2	<0.002	<0.002	-	-	<0.002	<0.002	<0.002	0.0076	ng
Tin	0.1	9	<0.1	0.6056	2.2468	0.3426	1.28	<0.1	1.39	14.3	100
Titanium	0.25	18	0.13	0.82	2.56	0.39	1.59	0.13	2.02	16.8	ng
Uranium	0.002	1	0.0010	0.0014	0.0026	0.0004	0.0022	0.0010	0.0010	0.0178	100
Vanadium	0.1	2	<0.1	<0.1	-	-	0.108	<0.1	<0.1	0.840	5
Zinc	0.5	43	5.53	9.53	2.22	0.34	10.2	9.07	13.4	15.4	300
Zirconium	0.2	1	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	0.220	ng
Arsenic Speciation, All Berries (*n* = 41)											
arsenate [As V]	0.025	4	<0.025	<0.025	-	-	<0.025	<0.025	0.0270	0.0280	ng
arsenite [As III]	0.005	3	<0.005	<0.005	-	-	<0.005	<0.005	0.0052	0.0184	ng
arsenobetaine [AsB], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
arsenocholine [AsC], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
dimethylarsinic acid [DMA], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
monomethylarsonic acid [MMA], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng

Notes:

Berries includes samples of huckleberry (Vaccinium membranaceum; n = 12), blueberry (Vaccinium sp.; n = 10), and soapberry (Shepherdia canadensis; n = 21). For arsenic speciation, two samples of huckleberry were excluded due to insufficient sample volume for this analysis.

All concentrations are in mg/kg dry weight unless otherwise noted.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no mineral tolerance limit (MTL) for this parameter.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the applicable MTL.

Mineral tolerance limits are from the National Research Council (NRC 2005) and are the lowest maximum tolerable concentration of metals for rodents, poultry, swine, horses, cattle and sheep.

Table 4.2-9: Summary Statistics for Leafy Vegetation, Near Field, 2021

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Leafy Vegetation, Near Field (*n* = 27)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	
Moisture (%)	0.5	27	51.8	62.3	5.8	1.1	64.4	63.3	68.8	69.1	ng
Aluminum	2	27	3.10	30.1	36.2	7.0	43.8	17.5	108	141	200
Antimony	0.01	0	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	70
Arsenic	0.02	11	<0.02	0.025	0.027	0.005	0.035	<0.02	0.084	0.101	30
Barium	0.05	27	7.92	47.3	28.5	5.49	58.0	47.8	90.6	105	100
Beryllium	0.01	3	<0.01	<0.01	-	-	<0.01	<0.01	0.0419	0.0530	ng
Bismuth	0.01	0	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	500
Boron	1	27	1.90	12.2	8.09	1.56	15.2	11.4	23.9	35.6	150
Cadmium	0.005	18	<0.005	0.377	0.741	0.143	0.657	0.0136	2.17	2.70	10
Calcium	20	27	3,250	8,577	4,996	961	**10,462**	5,950	**17,980**	**19,000**	10,000
Cesium	0.005	27	0.0080	0.116	0.184	0.035	0.185	0.05810	0.310	0.934	ng
Chromium	0.05	14	<0.05	0.067	0.064	0.012	0.091	0.050	0.209	0.269	100
Cobalt	0.02	18	<0.02	0.379	0.894	0.172	0.716	0.0740	1.31	4.50	25
Copper	0.1	27	0.94	3.08	1.03	0.20	3.47	3.15	4.60	4.89	15
Iron	3	27	25.6	64.3	51.4	9.9	83.7	44.9	190	222	500
Lead	0.02	4	<0.02	<0.02	-	-	<0.02	<0.02	0.0497	0.098	10
Lithium	0.5	1	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	1.26	25
Magnesium	2	27	842	2,081	1,139	219	2,510	1,770	4,313	4,820	2,400
Manganese	0.05	27	59	**706**	643	124	**949**	**440**	**1,755**	**1,820**	400
Mercury	0.005	23	<0.005	0.0089	0.0041	0.0008	0.0104	0.0089	0.0140	0.0207	0.2
Molybdenum	0.02	27	0.063	0.89	1.0	0.20	1.28	0.47	3.12	4.24	5
Nickel	0.2	14	0.10	0.58	0.80	0.15	0.88	0.21	2.24	2.99	50
Phosphorus	10	27	768	2,194	1,147	221	2,627	1,680	4,628	4,890	6,000
Potassium	20	27	5,500	**11,989**	5,268	1,014	**13,976**	**12,200**	**19,090**	**24,500**	10,000
Rubidium	0.05	27	2.28	15.1	18.2	3.51	21.9	11.1	37.6	95.0	200
Selenium	0.05	0	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	3
Silver	0.005	3	<0.005	<0.005	-	-	<0.005	<0.005	0.0059	0.0075	100
Sodium	20	3	<20	<20	-	-	<20	<20	54.5	158	ng
Strontium	0.05	27	10.9	63.5	50.2	9.7	82.4	39.6	146	153	1,000
Tellurium	0.02	0	<0.02	<0.02	-	-	<0.02	<0.02	<0.02	<0.02	ng
Thallium	0.002	10	<0.002	0.0030	0.0038	0.0007	0.0044	<0.002	0.0081	0.0178	ng
Tin	0.1	3	<0.1	<0.1	-	-	<0.1	<0.1	0.14	0.18	100
Titanium	0.25	22	<0.25	0.96	1.35	0.26	1.47	0.53	4.12	5.66	ng
Uranium	0.002	2	<0.002	<0.002	-	-	<0.002	<0.002	0.0025	0.0049	100
Vanadium	0.1	2	<0.1	<0.1	-	-	<0.1	<0.1	0.113	0.490	5
Zinc	0.5	27	9.98	51.3	47.1	9.07	69.1	28.8	147	190	300
Zirconium	0.2	0	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	ng
Arsenic Speciation (*n* = 8, in Labrador tea)											
arsenate [As V]	0.025	0	<0.025	<0.025	-	-	<0.025	<0.025	<0.025	<0.025	ng
arsenite [As III]	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
arsenobetaine [AsB], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
arsenocholine [AsC], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
dimethylarsinic acid [DMA], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng
monomethylarsonic acid [MMA], (as As)	0.005	0	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	ng

Notes:

Leafy vegetation includes samples of willow (Salix sp.; n = 11), sedge (Carex sp.; n = 8), and Labrador tea (Rhododendron sp.; n = 8).

All concentrations are in mg/kg dry weight unless otherwise noted.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no mineral tolerance limit (MTL) for this parameter.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the applicable MTL.

Mineral tolerance limits are from the National Research Council (NRC 2005) and are the lowest maximum tolerable concentration of metals for rodents, poultry, swine, horses, cattle and sheep.

Table 4.2-10: Summary Statistics for Berries, Near Field, 2021

Parameter	Detection Limit (DL)	Samples with Concentration > DL	Summary Statistics of Parameter Concentrations in Berries 2021, Near Field (*n* = 13)								Mineral Tolerance Limit
			Min.	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Max.	
Moisture (%)	0.5	13	74.6	83.1	4.8	1.3	85.7	83.5	88.9	89.7	ng
Aluminum	2	12	<2	48.5	69.6	19.3	86.3	30.0	153.0	**268**	200
Antimony	0.01	1	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	0.011	70
Arsenic	0.02	3	<0.02	<0.02	-	-	<0.02	<0.02	0.0484	0.088	30
Barium	0.05	13	0.598	14.8	12.1	3.4	21.4	14.6	33.7	42.2	100
Beryllium	0.01	0	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	ng
Bismuth	0.01	0	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	500
Boron	1	13	3.00	9.63	3.41	0.95	11.5	10.5	13.4	13.6	150
Cadmium	0.005	10	<0.005	0.0107	0.0096	0.0027	0.0160	0.0078	0.0276	0.0360	10
Calcium	20	13	655	1,252	516	143	1,532	1,190	2,152	2,260	10,000
Cesium	0.005	10	<0.005	0.0489	0.0616	0.0171	0.0824	0.0156	0.162	0.206	ng
Chromium	0.05	4	<0.05	0.147	0.234	0.065	0.274	<0.05	0.559	0.834	100
Cobalt	0.02	5	<0.02	0.0222	0.0236	0.0065	0.0350	<0.02	0.058	0.095	25
Copper	0.1	13	3.90	5.69	1.25	0.35	6.37	5.59	7.52	8.79	15
Iron	3	13	14.8	49.3	77.5	21.5	91.4	23.2	154	304	500
Lead	0.02	3	0.0100	0.0338	0.0661	0.0183	0.0697	0.0100	0.1218	0.252	10
Lithium	0.5	0	0.25	0.25	0.00	0.00	0.25	0.25	0.25	0.25	25
Magnesium	2	13	458	658	155	43	742	624	891	965	2,400
Manganese	0.05	13	10	204	195	54	310	159	**515**	**534**	400
Mercury	0.005	1	<0.005	<0.005	-	-	<0.005	<0.005	0.007	0.014	0.2
Molybdenum	0.02	13	0.256	0.777	0.540	0.150	1.07	0.507	1.63	1.92	5
Nickel	0.2	12	<0.2	1.48	1.77	0.49	2.45	0.570	4.25	6.27	50
Phosphorus	10	13	1,580	1,866	224	62	1,987	1,780	2,168	2,180	6,000
Potassium	20	13	5,180	9,165	2273	630	**10,401**	8,920	**12,080**	**13,400**	10,000
Rubidium	0.05	13	5.10	17.4	14.8	4.1	25.5	10.2	44.2	53.9	200
Selenium	0.05	0	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	3
Silver	0.005	6	<0.005	0.0053	0.0040	0.0011	0.0075	<0.005	0.0127	0.0137	100
Sodium	20	5	<20	54.1	100.6	27.9	109	<20	242	357	ng
Strontium	0.05	13	3.06	5.87	2.11	0.58	7.02	5.67	8.83	10.1	1,000
Tellurium	0.02	0	<0.02	<0.02	-	-	<0.02	<0.02	<0.02	<0.02	ng
Thallium	0.002	2	<0.002	<0.002	-	-	<0.002	<0.002	0.0047	0.0076	ng
Tin	0.1	3	<0.1	1.56	4.00	1.11	3.73	<0.1	8.19	14.3	100
Titanium	0.25	7	<0.25	1.83	4.54	1.26	4.30	0.25	7.97	16.8	ng
Uranium	0.002	1	<0.002	<0.002	-	-	<0.002	<0.002	<0.002	0.0178	100
Vanadium	0.1	1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	0.840	5
Zinc	0.5	13	5.53	10.2	2.71	0.75	11.7	10.1	14.9	15.4	300
Zirconium	0.2	1	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	0.220	ng
Arsenic Speciation (*n* = 11)											
Arsenate [As V]	0.025	3	<0.025	<0.025	-	-	<0.025	<0.025	0.027	0.028	ng
Arsenite [As III]	0.005	2	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	0.018	ng
Arsenobetaine [AsB], (as As)	0.005	1	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	0.003	ng
Arsenocholine [AsC], (as As)	0.005	1	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	0.003	ng
Dimethylarsinic acid [DMA], (as As)	0.005	1	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	0.003	ng
Monomethylarsonic acid [MMA], (as As)	0.005	1	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	0.003	ng

Notes:

Berries includes samples of huckleberry (Vaccinium membranaceum; n = 5), blueberry (Vaccinium sp.; n = 3), and soapberry (Shepherdia canadensis; n = 5). For arsenic speciation, two samples of huckleberry were excluded due to insufficient sample volumes for this analysis.

All concentrations are in mg/kg dry weight unless otherwise noted.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

ng = no mineral tolerance limit (MTL) for this parameter.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.

Grey shading indicates the concentration is greater than the applicable MTL.

Mineral tolerance limits are from the National Research Council (NRC 2005) and are the lowest maximum tolerable concentration of metals for rodents, poultry, swine, horses, cattle and sheep.

4.2.3 Summary of Analytical Results

Only 19 parameters were analyzed in soil in 2011-2012, while 36 parameters were analyzed in 2021. For vegetation samples, 34 parameters were analyzed in 2011-2012, while 37 parameters were analyzed in 2021. The list of parameters not analyzed in soil in 2011-2012, but included in 2021 were: aluminum, bismuth, boron, chromium, iron, lithium, magnesium, manganese, phosphorous, potassium, sodium, strontium, sulfur, titanium, tungsten, uranium, and zirconium. In vegetation, silicon and sulfur were analyzed in 2011-2012, but not in 2021, whereas bismuth, cesium, rubidium, and tellurium were only analyzed in 2021.

Soil pH was found to be overall low (pH < 6) in the study area and within near field locations, which is consistent between 2011-2012 and 2021 datasets.

Of the parameters measured in soil in the study area in 2011-2012, maximum concentrations of arsenic, cadmium, and molybdenum were greater than the CCME soil quality guidelines or BC CSR standards. In 2021, maximum concentrations of aluminum, arsenic, iron, manganese, molybdenum, sodium, and sulfur were greater than the CCME soil quality guidelines or the BC CSR standards; aluminum, iron, manganese, sodium, and sulfur were not measured in 2011-2012 samples. Mean soil parameter concentrations did not exceed the benchmarks in either dataset.

As there are no provincial or federal guidelines or standards for plant tissue metal concentrations for the protection of human health or ecological health, the MTLs available from the NRC (2005) were used as a benchmark for plant parameter concentrations. The MTLs are based on the maximum tolerable concentrations of metals in diets fed to rodents, poultry, swine, horses, cattle, and sheep.

Generally, maximum concentrations of metals 13 metals in leafy vegetation collected in 2011-2012 were higher than the MTLs and mean concentrations of aluminum, calcium, magnesium, manganese and potassium in leafy vegetation were higher than the MTLs. The 2021 dataset indicated that maximum concentrations of seven metals were higher than the MTLs, and mean concentrations of manganese and potassium were higher than the MTLs in leafy vegetation. Maximum concentrations of four metals were higher than MTLs in berries but mean concentrations in berries were all lower than the MTLs.

4.3 QA/QC Results for 2021 Soil and Vegetation Data

4.3.1 Sample Integrity, Storage and Transport

During field sampling, standard sampling procedures were adhered to preserve sample integrity and mitigate the chances of cross-contamination. The trip was completed safely with no environmental or safety incidents, and there were no additional concerns that would suggest the integrity of the samples would have been affected.

After delivery of the samples to the laboratory, a review of the sample receipt confirmation was completed to identify any issues that may have occurred during transport to the lab. The sample receipt confirmation indicated that the samples had been successfully delivered with no issues pertaining to sample and container integrity and all samples were analyzed within recommended holding times. The laboratory noted (by email) that two huckleberry samples did not have sufficient sample volumes to support arsenic speciation analysis.

While the laboratory noted a few instances of internal duplicate, matrix spikes, control sample recovery, and parameter frequency laboratory targets not being met, these checks overall met ALS Laboratories DQO's for internal QA/QC, and the report was issued and distributed without further comment. Certificates of analysis, including complete results from laboratory QA/QC checks, are provided in Appendix C.

4.3.2 Relative Percent Difference (RPD)

In 2021, 15 duplicate samples were collected, including four soil samples, eight plant tissue samples and three berry samples. Among these data, a total of 587 variables were recorded and RPD calculated for 57% (82/144) of soil variables, 42% (132/314) of vegetation variables and 36% (47/129) of berry variables. As per BC ENV (2013), RPDs are only calculated when the reported concentrations are more than five times higher than the DL.

Results of the RPD calculation are presented in Appendix E and identified eight metal parameters in soil, three in vegetation, and two in berry duplicate samples that had a calculated RPD greater than 60%, which exceeded the DQOs set for RPD results in field duplicates.

For soil, seven of the eight parameters that exceeded the DQO originated from a soil duplicate collected at CFMP-SV21, specifically the W sample. For vegetation, all three parameters exceeding DQOs were related to different samples (one each of willow, sedge, and Labrador tea), while for berries the two parameters exceeding DQOs were linked to the soapberry sample collected at CFMP-SV21. Table 4.3-1 presents a summary of the RPD results that were greater than 60%.

Table 4.3-1: Summary of Parameters and Samples Exceeding Relative Percent Difference of 60% in Soil, Leafy Vegetation, and Berries, 2021

Parameter	Sample ID	Duplicate ID	Date Sampled	Sample (mg/kg)	Duplicate (mg/kg)	RPD (%)
Soil						
Arsenic	CFMP-SV21-021-Soil W	CFMP-QAQC-2021-002-Soil W	2021-08-11	0.42[a]	0.99	80.8
Barium				57	327	140.6
Cobalt				0.36[a]	2.07	140.7
Iron				972	5960	143.9
Manganese				692	6640	162.2
Molybdenum				0.95	4.5	130.3
Phosphorus				397	751	61.7
Manganese	CFMP-SV21-013-Soil	CFMP-QAQC-2021-003-Soil		128	299	80.1
Leafy Vegetation						
Cadmium	CFMP-SV21-021-WILL	CFMP-QAQC-2021-002-WILL	2021-08-11	0.16	0.06	96.4
	CFMP-SV21-021-SEDG	CFMP-QAQC-2021-002-SEGDE		0.01	0.03	78.8
Chromium	CFMP-SV-033-TEA	CFMP-QAQC-2021-001-TEA	2021-08-10	0.03	0.56	182.9
Berries						
Aluminum	CFMP-SV21-021-SOAP	CFMP-QAQC-2021-002-SOAP	2021-08-11	22.1	10.3	72.8
Manganese				24.9	11.3	75.1

[a] *Concentrations of this parameter were within five times the detection limit but the RPD was calculated because the duplicate sample had concentrations more than five times the detection limit.*

While the target RPD was not met in all samples and parameters, natural variability is expected due to the heterogeneous nature of bio-physical media. Given the relatively low frequency of RPDs that exceeded the DQO, it is unlikely that sample heterogeneity affected the quality of the dataset as a whole. However, it is recommended that additional care should be taken in the field to ensure that composite soil samples are mixed well prior to submission to the laboratory; this will be emphasized in the standard operating procedures for soil sampling.

4.4 Statistical Comparisons

4.4.1 Comparison of 2021 Data to 2011-2012 Data

After excluding data that did not meet the criteria (Section 3.2.3), the statistical comparisons were carried out on 12 metal parameters in soil and 16 metal parameters in vegetation. For each parameter included in the test, the data was first tested for normality distribution.

In most cases the assumption of normality for use of parametric statistical analysis was not satisfied; thus, the non-parametric Mann-Whitney test was used instead of t tests to compare 2011-2012 (“Before”) and 2021 (“After”) datasets. In order to control for the effects of multiple testing, a Bonferroni correction was applied and each test was assessed relative to a significance level of 0.004 for soil and 0.003 for vegetation.

The statistical analysis report is included in Appendix F, including results of the normality test (true or false), the result of the test statistic, p-value and outcome as to whether or not the parameter variable was significantly different (true or false).

4.4.1.1 Soil

At the LSA-wide level, 50% (6 out of 12) of the parameters were significantly different between 2011-2012 and 2021, including barium, chromium, cobalt, nickel, vanadium, and zinc. At the near field level, only concentrations of vanadium were significantly different between the 2011-2012 and 2021 sampling years. Based on mean concentrations, all of these parameters were significantly higher in 2021 when compared to 2011-2012. There were not sufficient numbers of samples in the 2011-2012 mid field or control areas to allow comparison with 2021 soil data for these areas.

4.4.1.2 Vegetation

For the vegetation samples, the statistical comparisons were only carried out on willow samples, as it was the only species that was sampled both in 2011-2012 and 2021, and had sufficiently large sample sizes to perform the analyses. At the LSA-wide level, 3 out of 16 parameters (barium, calcium, and mercury) were shown to be significantly different between 2011-2012 and 2021, whereas all other parameters were not significantly different. While mean concentrations of barium and calcium were higher in 2021 than in 2011-2012, mean concentrations of mercury were approximately 20 times lower in 2021 compared to 2011-2012, likely due to a change in detection limits from 0.02 to 0.005 mg/kg dw. At the near field level, only mercury was significantly lower in 2021 compared to 2011-2012.

4.4.2 Comparison of 2021 Near Field, Mid Field, and Control Areas

4.4.2.1 Soil

There were insufficient number of soil samples to perform statistical comparisons among sampling sub-areas for the 2011-2012 soil data.

For 2021 soil data, after excluding data that did not meet the criteria (Section 3.2.3), the statistical comparison among sampling areas was carried out on 30 soil metal parameters. The data were not found

to be normally distributed, so the non-parametric Kruskal-Wallis test was used instead of F tests. In order to control for the effects of multiple testing, a Bonferroni correction was applied and each test was assessed relative to a significance level of 0.002.

Statistical analysis found no significant differences among sampling sub-areas for any parameter in the 2021 soil metal dataset.

4.4.2.2 Vegetation

There were insufficient number of vegetation samples to perform statistical comparisons among sub-areas for 2011-2012 vegetation data.

For 2021 vegetation data, only willows and sedge were considered for the statistical comparison among sub-areas as other species did not have sufficient number of samples collected in each sub-area ($n < 8$) to perform the tests. After excluding parameters that did not meet the criteria (Section 3.2.3), the statistical comparisons among sub-areas were carried out on 22 metal parameters measured in sedge samples and 21 metal parameters measured in willow samples. For most parameters, the assumption of normal distribution was not satisfied, so the non-parametric Kruskal-Wallis test was used instead of F tests to compare the data. In order to control for effects of multiple testing, a Bonferroni correction was applied and each test was assessed relative to a significance level of 0.001.

Statistical analysis found no significant differences among sampling sub-areas for any parameter in the sub-areas for 2021 willow and sedge tissue metal data.

5. CONCLUSION AND RECOMMENDATIONS

The primary objective of this report was to provide the results of the 2021 soil and vegetation baseline sampling program and summarize baseline soil, vegetation, and berry metal concentration data currently available for the Project. In addition, statistical analyses were performed to compare baseline data collected in 2011-2012 in support of the Application/EIS with the baseline data collected in 2021 to determine whether the datasets are sufficiently similar to be integrated into an expanded cumulative baseline dataset.

In August 2021, a total of 38 sites were sampled for soil quality alongside leaf tissues or berries of one or more plant species (willow, sedge, Labrador tea, soapberry, huckleberry, and blueberry). Sites were categorized as near field, mid field, and control locations based on the approximate distance of the sampling location to future mining infrastructure. Similarly, samples collected by AMEC in 2011 and 2012 outside the mine site (20 soil samples and 24 vegetation samples) were categorized into near field, mid field, and control locations to facilitate comparison between 2011-2012 and 2021 datasets.

The results of the statistical comparisons indicate that there are significant differences between the historical 2011-2012 data and the data collected in 2021. These differences exist predominately between soil parameter concentrations, where 50% of the measured parameters were different between sampling years at an LSA-wide level. These differences were not observed when comparing only near field sites, as only one parameter (vanadium) in soil was significantly different between datasets. In willow, three parameters at an LSA-wide level and one parameter at a near field level were significantly different between 2011-2012 and 2021 datasets.

In consideration of these results, and the limitations of the 2011-2012 soil and vegetation dataset (Section 1), it is not recommended to amalgamate the soil and vegetation analytical results from 2011-2012 into a cumulative baseline dataset with the 2021 analytical data for this Project. Instead, it is recommended that additional soil, plant, and berry sampling be conducted in 2022 to establish a second full year of data collection for a 2021-2022 cumulative dataset that is verifiable and consistent with up-to-date sampling and analytical methodologies and DQOs. Influence of the Project during early works construction activities is not expected to affect mid field or control locations, so data collected in 2022 can be used to supplement the baseline data for these locations. Depending on the timing and extent of early works construction activities that are planned in 2022 for the mine site, sampling at near field locations will need to be evaluated to determine if Project activities have influenced soil, plant, or berry concentrations.

The comparison among near field, mid field, and control sites for 2021 soil and vegetation (willow and sedge) samples indicates that samples collected in the three sub-areas are not significantly different. This establishes a similar baseline for all three areas for soil, plant, and berry metal parameters.

Based on results of the 2021 soil, plant, and berry sampling, the following are recommended for sampling in 2022:

- With assistance from BW Gold's on-site personnel, adjust the timing of the collection of berries to better coincide with maximum berry abundance to boost the number and quality of berry samples;
- The same plant species and locations should be re-sampled, with the addition of up to eight sites including at locations suggested by Indigenous groups (e.g., near Tatelkuz Lake);
- Analysis of plant or berry samples for arsenic speciation is not recommended, as concentrations were frequently below detection limits (60 out of 64 samples) or slightly above detection limits (4 out of 64 samples); and
- Emphasize the importance of thoroughly mixing soil, plant, and berry samples in the formal standard operating procedures (currently under development) to improve sample homogeneity.

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APPENDIX A SITE PHOTOGRAPHS

Appendix A: Site Photographs

Site ID: **Site ID for mapping**:	CFMP-SV-001 001	**UTM Coordinates**: Easting Northing	 371271 5892260
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Huckleberry (HUCK) Blueberry (BLUE) Soil (SOIL)	**Type of Sampling Site**:	Mid field
Site photo(s):		**Site and Access Description**: *Subalpine. Mediocre site for berries. All other areas in vicinity are densely treed with no landing spots. Helicopter access only.* **Other Field Notes**: *Sparse huckleberry & blueberries. Ripe crowberry present. Moose scat and tracks present.*	

Site ID: **Site ID for mapping**:	CFMP-SV-002 002	**UTM Coordinates**: Easting Northing	 365957 5894805
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Blueberry (BLUE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site**:	Mid field
Site photo(s):		**Site and Access Description**: *Cutblock. Abundant willow. Potential road access.* **Other Field Notes**: *Moose and bear scat abundant, blueberries found but berries sparse; other berries ripe (raspberry, strawberry and soapberry) abundant*	

Site ID: **Site ID for mapping**:	CFMP-SV-003 003	**UTM Coordinates**: Easting Northing	 373408 5899788
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site**:	Near field

Site photo(s):

Site and Access Description:
Sedge/scrub birch wetland with Salix. Adjacent upland site with Pine regen. Cutblock. Potential road access.

Other Field Notes:
Lots of huckleberry plants but sparse berries.

Site ID:	CFMP-SV-004	**UTM Coordinates**:	
Site ID for mapping:	004	Easting	371485
		Northing	5896139
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soil (SOIL)	**Type of Sampling Site**:	Near field

Site photo(s):

Site and Access Description:
Possible roadside access- adjacent to water sampling station near c-trail.

Other Field Notes:
Sandy/rocky soil. Samples contains lots of pebbles. Sphagnum moss really thick. Lots of huckleberry plants, but only few berries.

Site ID: **Site ID for mapping**:	CFMP-SV-005 005	**UTM Coordinates**: Easting Northing	 368752 5900683
Sampling Site for:	Willow (WILL) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site**:	Mid field
Site photo(s):		**Site and Access Description**: *Site at edge of cutblock and mature timber. Potential road access.* **Other Field Notes**: *Berries and willow abundant. Huckleberry plants abundant. Lots of moose sign and browsing, black bear at other end of large block.*	

Site ID:	CFMP-SV-006	**UTM Coordinates**:	
Site ID for mapping:	006	Easting	374417
		Northing	5891796
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Huckleberry (HUCK) Blueberry (BLUE) Soil (SOIL)	**Type of Sampling Site**:	Near field

Site photo(s):

Site and Access Description:
Subalpine. Potential road access.

Other Field Notes:
Deer and moose scat present, berries sparse.

Site ID:	CFMP-SV-007	**UTM Coordinates**:	
Site ID for mapping:	007	Easting	373424
		Northing	5886984
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site**:	Mid field

Site photo(s):

Site and Access Description:
Close to road, sedge/scrub birch wetland. Road access.

Other Field Notes:
Lots of huckleberry plants on ridge but few berries. Labrador tea also sparse.

Site ID:	CFMP-SV-008	**UTM Coordinates**:	
Site ID for mapping:	008	Easting	375413
		Northing	5884185
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site**:	Control

Site photo(s):

Site and Access Description:
Landed at old core shack storage, Followed old road to lake (~200m). Large cleared landing lakeside. Road travels through old Pine regen cutblock. Although road present unsure if it is road accessible

Other Field Notes:
Lots of ripe huckleberry at lake!

Site ID: **Site ID for mapping**:	CFMP-SV-009 009	**UTM Coordinates**: Easting Northing	 378740 5890400
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soil (SOIL)	**Type of Sampling Site**:	Mid field

Site photo(s):

Site and Access Description:
Landed in sedge/scrub birch wetland adjacent to small burned area. Helicopter access only.

Other Field Notes:
Huckleberry plants but no berries, ripe crowberry

Site ID:	CFMP-SV-010	**UTM Coordinates**:	
Site ID for mapping:	010	Easting	376596
		Northing	5891639
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site**:	Near field

Site photo(s):

Site and Access Description:
Landed in wetland adjacent to quad-access road.

Other Field Notes:
Lots of ripe huckleberry close to road. Only upland soil sample - too wet in wetland to sample soil

Site ID: **Site ID for mapping**:	CFMP-SV-011 011	**UTM Coordinates**: Easting Northing	 387932 5893877
Sampling Site for:	Willow (WILL) Blueberry (BLUE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site**:	Control

Site photo(s):

Site and Access Description:
New cutblock with seedlings (~2-4 y.o.). Adjacent to mature pine upland area. Road access.

Other Field Notes:
Abundant dwarf blueberry. Very abundant soapberry

Site ID:	CFMP-SV-012	**UTM Coordinates**:	
Site ID for mapping:	012	Easting	385869
		Northing	5888517
Sampling Site for:	Willow (WILL) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site**:	Control

Site photo(s):

Site and Access Description:
Landed in clearing adjacent to road. Mixed forest transitioning to pine then to large willow wetland complex. Potential road access but not confirmed.

Other Field Notes:
Soapberry ripe and abundant, Lots of ripe cranberry and raspberry.

Site ID:	CFMP-SV-013	**UTM Coordinates**:	
Site ID for mapping:	013	Easting	379271
		Northing	5897434
Sampling Site for:	Willow (WILL) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site**:	Near field

Site photo(s):

Site and Access Description:
Landed on road edge of cutblock. Walked into willow/sedge wetland about 250-300 m. Potential road access.

Other Field Notes:
Upland area contains lots of huckleberry as well as many of other berries such raspberry, cranberry, and crowberry.

Site ID: **Site ID for mapping**:	CFMP-SV-014 014	**UTM Coordinates**: Easting Northing	 379289 5898605
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Blueberry (BLUE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Near field
Site photo(s):		**Site and Access Description**: *Site surrounded by ~20 yo Pine regen. Road access (possible c-trail?).* **Other Field Notes**: *Huckleberry small plants and sparse berries.*	

Site ID: **Site ID for mapping**:	CFMP-SV-015 015	**UTM Coordinates**: Easting Northing	 381854 5898987
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Blueberry (BLUE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Mid field
Site photo(s):		**Site and Access Description**: *Mature pine with regen. extensive moose signs.* **Other Field Notes**: *No huckleberries present, but blueberry and raspberries ripe and very abundant, Soapberry not abundant (despite lots of plants).*	

Site ID: **Site ID for mapping**:	CFMP-SV-016 016	**UTM Coordinates**: Easting Northing	 387750 5899169
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Soapberry (SOAP) Soil (SOIL) – U and W	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Cutblock with adjacent small wetland for willow, sedge and soil. Upland mature pine. LOTS of blowdown Landed on deactivated road. Potential quad access.

Other Field Notes:
Two soil samples collected to represent distinctly different soil types (U = upland, associated with berries; W = wet associated with foliage samples).
Soapberry primarily past ripe and only able to collect 35g.

Site ID:	CFMP-SV-017	**UTM Coordinates**:	
Site ID for mapping:	017	Easting	382514
		Northing	5901070
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soil (SOIL)	**Type of Sampling Site:**	Mid field

Site photo(s):

Site and Access Description:
Landed in open landing adjacent to block. Potential road access but appears deactivated.

Other Field Notes:
Extensive moose signs.
An abundance of soapberry plants but berries past ripe and have fallen off. Unable to collect in 2021.

Site ID: **Site ID for mapping**:	CFMP-SV-018 018	**UTM Coordinates**: Easting Northing	 379097 5901510
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Near field

Site photo(s):

Site and Access Description:
Minimal landing sites in NE area near this site. Landed on cutblock road, LOTS of blowdown.. Small wetland in forested area with sedge remaining samples collected near bridge. Potential road access

Other Field Notes:
Soapberry primarily beyond ripe.

Site ID: **Site ID for mapping**:	CFMP-SV-019 019	**UTM Coordinates**: Easting Northing	 377967 5900722
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Near field

Site photo(s):

Site and Access Description:
Landed in willow/sedge wetland, upland Pine/Spruce forest. Not many berries only some ripe. Helicopter access only.

Other Field Notes:
Many soapberries growing amongst sedge and Labrador tea. Wind really picked up and gusts were snapping branches off trees so we were unable to collect blueberries (lots of overhead hazards).

Site ID:	CFMP-SV-020	**UTM Coordinates**:	
Site ID for mapping:	020	Easting	382931
		Northing	5904351
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Blueberry (BLUE) Soil (SOIL)	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Landed in wetland adjacent to old burned area with a small residual patch of mature. Helicopter access only.

Other Field Notes:
Lots of soapberry plants but berries past ripe and none to collect in 2021. Extensive moose usage.

Site ID: **Site ID for mapping**:	CFMP-SV-021 021	**UTM Coordinates**: Easting Northing	 383744 5897519
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL) – U and W	**Type of Sampling Site:**	Mid field
Site photo(s):		**Site and Access Description**: *Landed in small scrub birch wetland adjacent to ~15yo cutblock, Wet low lying site, no upland area. Potential road access.* **Other Field Notes**: *Two soil samples collected to represent distinctly different soil types (U = upland, associated with berries; W = wet associated with foliage samples).* *Poor site for berries but great for willow and sedge.*	

Site ID:	CFMP-SV-022	**UTM Coordinates**:	
Site ID for mapping:	022	Easting	378218
		Northing	5894561
Sampling Site for:	Willow (WILL) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site:**	Near field

Site photo(s):

Site and Access Description:
Landed in skid trail in pine/balsam mature stand with regen.

Other Field Notes:
Abundant huckleberry plants but few berries.

Site ID:	CFMP-SV-023	**UTM Coordinates**:	
Site ID for mapping:	023	Easting	366878
		Northing	5905536
Sampling Site for:	Willow (WILL) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Young cutblock with Pine regen. adjacent to mature Pine forest. Potential road access.

Other Field Notes:
Very windy, unable to collect samples in adjacent mature forest due to overhead hazards.

Site ID: **Site ID for mapping**:	CFMP-SV-024 024	**UTM Coordinates**: Easting Northing	 375822 5907513
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Cutblock adjacent to mature pine/spruce stand.

Other Field Notes:
Sparse and over ripe soapberries. Other berries (raspberry) ripe and abundant.

Site ID: **Site ID for mapping**:	CFMP-SV-025 025	**UTM Coordinates**: Easting Northing	 378819 5905556
Sampling Site for:	Willow (WILL) Blueberry (BLUE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Near field

Site photo(s):

Site and Access Description:
Older cutblock adjacent to mature timber. Lots of blowdown. Potential road access.

Other Field Notes:
Primarily dried and shriveled blueberries on plants. Only could collect about a tbsp.

Site ID: **Site ID for mapping**:	CFMP-SV-026 026	**UTM Coordinates**: Easting Northing	
Sampling Site for:	Did not collect samples due to bear presence	**Type of Sampling Site:**	Near field
Site photo(s):		**Site and Access Description**: *Landed in large scrub birch/sedge wetland with black spruce. Scrub birch tall and made landing difficult. Upland dry pine area. Helicopter access only* **Other Field Notes**: *Abundant willow and sedge in wetland, however, as we traversed through upland, presence of bear made berry collection not possible. No samples were collected at this site.*	

Site ID:	CFMP-SV-027	**UTM Coordinates**:	
Site ID for mapping:	027	Easting	386022
		Northing	5902891
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Blueberry (BLUE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Landed on road close to cutblock. Small willow wetland adjacent to cutblock and mature timber. Potential road access.

Other Field Notes:
Abundant berries especially blueberries.

Site ID: **Site ID for mapping**:	CFMP-SV-028 028	**UTM Coordinates**: Easting Northing	 381909 5894605
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Blueberry (BLUE) Soil (SOIL) – U and W	**Type of Sampling Site:**	Mid field

Site photo(s):

Site and Access Description:
250m walk along cutblock edge/stream to get to small sedge patch. GPS coordinates for small wetland. Potential road access.

Other Field Notes:
Two soil samples collected to represent distinctly different soil types (U = upland, associated with berries in cutblock; W = wet associated with foliage samples).
Blueberries tiny! Only able to collect 20 g.

Site ID: **Site ID for mapping**:	CFMP-SV-029 029	**UTM Coordinates**: Easting Northing	 373268 5903310
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Mid field
Site photo(s):		**Site and Access Description**:	

):

Other Field Notes:
Wetland too wet to collect soil samples therefore collected soil from transition zone. Sedge has some sort of leaf spot.

Site ID: **Site ID for mapping**:	CFMP-SV-030 030	**UTM Coordinates**: Easting Northing	 375429 5903222
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Mid field
Site photo(s):		**Site and Access Description**: *Sedge wetland adjacent to ~15yo Pine cutblock. Potential road access, but may be deactivated.* **Other Field Notes**: *Very abundant blueberries.*	

Site ID:	CFMP-SV-031	**UTM Coordinates**:	
Site ID for mapping:	031	Easting	372353
		Northing	5897782
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site:**	Near field

Site photo(s):

Site and Access Description:

Other Field Notes:
Very sparse huckleberries - only found 12 berries (in 25 minutes). No green berries either.

Site ID: **Site ID for mapping**:	CFMP-SV-032 032	**UTM Coordinates**: Easting Northing	 368437 5880920
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL) – U and W	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Small willow/sedge wetland with adjacent mature black spruce forest and upland Pine stand. Helicopter access only.

Other Field Notes:
Two soil samples collected to represent distinctly different soil types (U = upland, associated with berries; W = wet associated with foliage samples).
Ripe raspberry and huckleberry present.

Site ID: **Site ID for mapping**:	CFMP-SV-033 033	**UTM Coordinates**: Easting Northing	 397333 5892492
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Few landing spots available in this area. Landed in willow/sedge//scrub birch wetland. Helicopter access.

Other Field Notes:
Lots of huckleberry plants, but sparse berries and many unripe - some ripe ones located on south facing upland.

Site ID:	CFMP-SV-034	**UTM Coordinates**:	
Site ID for mapping:	034	Easting	396588
		Northing	5896349
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Labrador Tea (LAB) Huckleberry (HUCK) Soil (SOIL)	**Type of Sampling Site:**	Control

Site photo(s):

Site and Access Description:
Small wetland with Balsam/pine upland. Few landing spots available in this area. Landed in willow/sedge wetland. Helicopter access.

Other Field Notes:
Limited huckleberries, abundant plants but 1 or 2 berries.

Site ID: **Site ID for mapping**:	CFMP-SV-035 035	**UTM Coordinates**: Easting Northing	 382824 5908376
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Road Transect (near field)

Site photo(s):

Site and Access Description:
Dry Pine/Lichen stand, mainly soapberry plants available on bench. Some willow and sedges available in draw about 10-15 m north of site.

Other Field Notes:
Collected in about a 25 m radius for plants and soils were a mix of the rooting zone (0-15 cm).
Dusty and smoky all day, temp in the low 20's. 1st site east of road. There was an active fire north of Tatelkuz Lake near the FSR.

Site ID: **Site ID for mapping**:	CFMP-SV-036 036	**UTM Coordinates**: Easting Northing	 382924 5908235
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Road Transect (near field)

Site photo(s):

Site and Access Description:
Continuation of the Pine/lichen dry forest. 2nd site east of road. Road access.

Other Field Notes:
Willow leaves collected on lower draw to the north within 10-15 m. Soils collected in the rooting zone (1-10 cm).

Site ID: **Site ID for mapping**:	CFMP-SV-037 037	**UTM Coordinates**: Easting Northing	 383003 5908129
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Road Transect (near field)

Site photo(s):

Site and Access Description:
Pine/Spruce with moss/lichen cover. Wetter slope position than first sites. Moss and lichen were dry. Road Access.

Other Field Notes:
Willow leaves collected on the slope to the east within 10-15 m. Soils collected in the rooting zone (0-20 cm). Last site east of the road. Became wetter further east of this site.

Site ID: **Site ID for mapping**:	CFMP-SV-038 038	**UTM Coordinates**: Easting Northing	 382745 5908560
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Road Transect (near field)
Site photo(s): Photo not available.		**Site and Access Description**: *Pine/lichen bench with stream & wetland to the north. First site west of the road. Standing water further north of this site. Road Access.* **Other Field Notes**: *Soapberry were more sparse and willow/sedges were very abundant in the wetland low area 20 m north. Soils collected in the rooting zone (0-15 cm).*	

Site ID: **Site ID for mapping**:	CFMP-SV-039 039	**UTM Coordinates**: Easting Northing	 382665 5908757
Sampling Site for:	Willow (WILL) Sedge (SEDGE) Soapberry (SOAP) Soil (SOIL)	**Type of Sampling Site:**	Road Transect (near field)
Site photo(s): Photo not available.		**Site and Access Description**: *Pine/lichen transition into wetland. Standing water further north of this site. No further site sampled due to the proximity of an existing site to the east. Road Access.* **Other Field Notes**: *Soapberry were patchy and willow/sedges were very abundant in the wetland low area 20 m north and west. Soils collected in the rooting zone (0-20 cm).*	

APPENDIX B 2011-2012 SOIL AND VEGETATION TISSUE CHEMISTRY DATA

Table B-1: Measured Concentration of Metals in Soil Samples Collected in 2011-2012 outside of the Project Mine Site

		Measured Concentration (mg/kg dry weight)																			
	Field Location:	Near	Mid	Mid	Near	Near	Near	Near	Mid	Near	Near	Near	Near	Near	Far	Far	Near	Mid	Mid	Near	Near
	Media:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Lab #:	11-11125-	11-11126-	11-11127-	11-11129-	11-11132-	11-11134-	11-11136-	12-8971-	12-8974-	12-8975-	12-8976-	12-8977-	12-8978-	12-8979-	12-8980-	12-8982-	12-8986-	12-8987-	12-17174-	12-17189-
	Client ID:	11-7106	11-7107	V-8	G39	G59	G63	11-7114	G-011	G-035	G-036	G-038	G-053	G-054	G-056	G-057	G-060	G-082	G-084	BW-35A	BW-24A
	Updated Sample Sites:	T-11-7106	T-11-7107	T-11-V008	T-11-G039	T-11-G059	T-11-G063	T-11-7114	T-12-G011	T-12-G035	T-12-G036	T-12-G038	T-12-G053	T-12-G054	T-12-G056	T-12-G057	T-12-G060	T-12-G082	T-12-G084	BW-35A	BW-24A
	Sample Date:	10-Aug-11	11-Aug-11	11-Aug-11	13-Aug-11	15-Aug-11	16-Aug-11	16-Aug-11	24-Jul-12	27-Jul-12	27-Jul-12	27-Jul-12	28-Jul-12	28-Jul-12	28-Jul-12	28-Jul-12	28-Jul-12	30-Jul-12	30-Jul-12	23-Jul-12	23-Jul-12
Parameter	Detection Limit																				
pH (pH units)	0.01	3.75	4.65	4.78	3.62	3.38	4.21	4.33	5.39	5.3	5.48	4.62	5.15	5.15	5.02	5.75	5.25	5.68	5.02	4.83	3.88
Antimony	0.5	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
Arsenic	0.5	1.6	2.0	1.8	1.1	3.0	1.9	1.9	3.2	8.1	1.0	1.1	1.5	6.4	80.8	1.1	1.9	2.4	1.8	5.0	0.7
Barium	1	37	38	34	26	30	50	40	66	119	46	44	9	97	30	5	81	41	47	33.5	16
Beryllium	0.1	**0.05**	0.30	0.30	**0.05**	**0.05**	0.10	0.10	0.20	1.20	**0.05**	**0.05**	0.20	0.60	0.20	**0.05**	0.60	0.20	0.20	0.60	**0.05**
Cadmium	0.1	**0.05**	0.20	0.20	0.20	**0.05**	0.10	0.20	**0.05**	0.40	**0.05**	**0.05**	0.20	1.80	1.50	**0.05**	0.40	**0.05**	**0.05**	0.20	**0.05**
Chromium	0.5	3.7	11.2	10.8	6.2	2.6	10.3	9.0	16.8	27.4	**0.3**	0.8	0.9	3.4	2.7	**0.3**	4.4	11.0	1.5	9.9	1.9
Cobalt	0.5	1.1	5.3	3.2	2.4	0.9	4.5	5.7	8.7	2.7	0.6	0.9	0.6	1.6	2.5	**0.3**	1.3	4.9	1.1	4.7	**0.3**
Copper	0.1	2.8	7.3	6.0	3.3	3.5	6.4	4.7	8.1	26.9	3.4	4.7	7.2	17.2	22.0	1.7	22.7	7.5	16.1	8.5	1.6
Lead	0.5	7.1	6.3	8.7	7.8	10.7	6.3	6.7	15.6	17.9	1.4	2.5	2.9	15.1	7.5	0.5	7.8	14.0	3.0	8.5	5.4
Mercury	0.5	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
Molybdenum	0.5	**0.25**	1.0	1.1	0.6	**0.25**	0.6	0.6	1.0	4.0	0.9	1.5	1.3	2.7	14.8	5.7	0.8	**0.25**	0.9	0.9	**0.25**
Nickel	0.5	1.0	5.7	3.6	1.9	1.0	6.7	5.3	15.7	6.9	1.2	1.1	1.7	5.5	0.9	**0.25**	3.5	6.6	1.8	7.1	0.6
Selenium	0.5	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
Silver	0.1	0.1	**0.05**	**0.05**	**0.05**	0.1	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	0.2	0.1
Thallium	0.5	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
Tin	0.5	**0.25**	**0.25**	0.6	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	2.5	**0.25**
Vanadium	0.2	14.6	38.9	34.9	33.7	12.1	35.3	37.7	46.2	32.2	1.0	1.7	3.4	8.0	40.2	0.7	6.2	31.5	9.2	27.8	6.9
Zinc	0.5	13.1	37.0	22.3	18.0	16.0	30.5	32.5	35.1	17.7	6.9	8.9	5.8	42.4	5.5	2.2	9.5	25.4	4.7	36.7	5.6

Notes:

Data provided by AMEC Foster Wheeler for samples collected in 2011 and 2012.

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL and are shown in ***bold*** *font.*

Table B-2: Measured Concentration of Metals in Plant Tissue Samples Collected in 2011-2012 outside of the Project Mine Site

		Measured Concentration (mg/kg dry weight)																
	Field Location:	Near	Near	Near	Near	Near	Near	Mid	Near	Mid	Mid	Mid	Near	Near	Near	Near	Near	Control
	Media/Species:	Black	Black	Black	Black	Black	Black	Scrub Birch	Scrub Birch	Scrub Birch	Scrub Birch	Willow	Willow	Willow	Willow	Willow	Willow	Willow
	Lab #:	11-11124-	11-11218-	11-11192-	11-11196-	11-11208-	11-11212-	11-11184-	11-11220-	11-11186-	11-11188-	12-8953-	12-8956-	12-8957-	12-8958-	12-8959-	12-8960-	12-8961-
	Client ID:	11-7106 VEG	11-7114 VEG	G28 VEG	G39 VEG	G59 VEG	G63 VEG	11-7107 VEG	G65 VEG	V-7 VEG	V-8 VEG	G-011 & G-011	G-035	G-036	G-038	G-053	G-054	G-056
	Updated Sample Sites:	T-11-7106	T-11-7114	T-11-V028	T-11-G039	T-11-G059	T-11-G063	T-11-7107	T-11-G065	T-11-V007	T-11-V008	T-12-G011	T-12-G035	T-12-G036	T-12-G038	T-12-G053	T-12-G054	T-12-G056
	Date:	2011-08-10	2011-08-16	2011-08-12	2011-08-13	2011-08-15	2011-08-16	2011-08-10	2011-08-17	2011-08-11	2011-08-11	2012-07-24	2012-07-27	2012-07-27	2012-07-27	2012-07-28	2012-07-28	2012-07-28
Parameter	Detection Limit																	
Aluminum	5	448.0	466.0	390.0	626.0	621.0	474.0	144.0	126.0	50.6	31.9	21.8	23.7	12.1	7.8	21.1	60.3	7.6
Antimony	0.1	0.1	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	0.275	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Arsenic	0.05	0.908	**0.025**	**0.025**	0.057	0.279	**0.025**	0.254	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**
Barium	0.5	79.95	116.00	63.00	89.50	62.50	88.70	30.50	30.20	24.80	39.50	12.95	3.10	4.70	3.80	14.10	12.10	4.10
Beryllium	0.5	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
Boron	2	12	17	25	20	12	16	**1**	**1**	**1**	**1**	9	19	6	8	13	9	**1**
Cadmium	0.02	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	0.25	0.07	0.14	0.07	0.24	0.51	0.03	0.26	0.27	0.17	0.92
Calcium	25	6440	8890	7380	6930	7320	7630	4830	4460	3320	4820	11450	7340	14500	11800	12700	10200	12100
Chromium	1	**0.5**	1.9	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	1.8	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Cobalt	1	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	1.0
Copper	0.4	7.0	13.7	9.9	11.5	11.6	9.6	7.2	8.6	6.4	6.8	4.2	3.8	**0.2**	0.4	4.9	4.5	8.9
Iron	5	129	108	35	216	549	106	164	122	30	32	120	69	34	31	67	91	55
Lead	3	**1.5**	12.8	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**
Lithium	0.4	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
Magnesium	20	2625	3380	2500	2550	2780	2920	2200	1900	1810	2400	3665	3180	3740	4030	3970	2260	1890
Manganese	0.5	1400	2040	3090	2510	2220	3500	2670	1320	1400	1390	498	281	246	1040	308	108	167
Mercury	0.02	**0.010**	0.090	**0.010**	0.020	0.030	0.020	**0.010**	0.070	**0.010**	**0.010**	0.430	0.170	**0.010**	0.040	0.670	0.440	0.380
Molybdenum	0.02	0.385	0.88	0.28	0.21	0.21	0.26	0.05	**0.01**	**0.01**	0.04	2.19	4.99	**0.01**	1.86	0.88	0.56	1.15
Nickel	2	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	2.5	3.7	3.1	2.5	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
Phosphorus	10	2285	2250	2330	2680	2390	2210	4260	4830	3430	3730	3130	3560	1930	3780	2880	1120	2470
Potassium	30	15550	12600	15400	13600	12200	17000	10600	10400	8950	8550	8755	10000	7110	7300	23500	14500	11500
Selenium	1	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Silicon	4	753	958	706	1260	1650	1270	998	828	763	571	586	604	638	617	325	545	486
Silver	0.3	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**
Sodium	50	**25**	**25**	**25**	105	73	**25**	**25**	61	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
Strontium	0.4	18.2	36.3	10.8	14.0	11.5	17.0	21.1	22.0	17.0	24.1	105.5	48.5	79.6	62.0	104.0	85.3	52.7
Sulphur	20	2085	1930	2040	1960	1910	1920	2180	2250	1940	2060	1415	2590	1500	990	3060	2520	3140
Thallium	0.02	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	0.03	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	0.28	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Tin	1	**0.5**	7.6	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Titanium	1	13.5	13.0	4.0	38.0	18.0	8.0	7.0	13.0	3.0	3.0	2.5	2.0	1.0	1.0	3.0	3.0	1.0
Uranium	0.04	**0.02**	**0.02**	**0.02**	**0.02**	0.06	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Vanadium	0.6	**0.3**	**0.3**	**0.3**	0.7	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Zinc	0.3	18.8	23.5	20.9	41.4	31.4	17.0	168.0	72.8	84.4	65.9	195.5	153.0	106.0	318.0	120.0	106.0	27.7
Zirconium	0.1	1.15	0.30	0.30	0.50	0.70	0.20	0.60	0.10	0.30	2.20	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**

Notes:

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL and are shown in ***bold*** *font.*

Data provided by AMEC Foster Wheeler for samples collected in 2011 and 2012.

Table B-2: Measured Concentration of Metals in Plant Tissue Samples Collected in 2011-2012 outside of the Project Mine Site

		Measured Concentration (mg/kg dry weight)						
	Field Location:	Control	Near	Mid	Mid	Near	Near	Mid
	Media/Species:	Willow	Willow	Willow	Willow	Willow	Willow	Willow
	Lab #:	12-8962-	12-8964-	12-8967-	12-8968-	11-11182-	11-11204-	11-11214-
	Client ID:	G-057	G-060	G-082	G-084	G10 VEG	G53 VEG	G64 VEG
	Updated Sample Sites:	T-12-G057	T-12-G060	T-12-G082	T-12-G084	T-11-V010	T-11-G053	T-11-G064
	Date:	2012-07-28	2012-07-28	2012-07-30	2012-07-30	2011-08-10	2011-08-15	2011-08-16
Parameter	Detection Limit							
Aluminum	5	5.4	5.1	12.7	11.9	902.0	128.0	312.0
Antimony	0.1	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Arsenic	0.05	**0.025**	**0.025**	**0.025**	**0.025**	0.822	**0.025**	0.068
Barium	0.5	0.60	14.60	16.10	4.80	12.20	15.00	11.20
Beryllium	0.5	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
Boron	2	11	8	10	7	**1**	**1**	**1**
Cadmium	0.02	0.08	0.11	0.10	0.20	0.91	0.06	0.03
Calcium	25	8570	11900	13800	8490	9220	13800	12400
Chromium	1	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Cobalt	1	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Copper	0.4	**0.2**	5.7	1.3	2.2	6.5	3.8	7.9
Iron	5	31	46	61	30	527	181	286
Lead	3	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**
Lithium	0.4	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
Magnesium	20	3500	2200	2290	2700	2200	2560	2210
Manganese	0.5	257	243	19	405	209	379	115
Mercury	0.02	0.170	**0.010**	**0.010**	**0.010**	**0.010**	0.020	0.080
Molybdenum	0.02	36.7	**0.01**	0.09	1.74	0.2	0.41	1.09
Nickel	2	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
Phosphorus	10	1940	1020	3310	2220	2250	2010	1310
Potassium	30	9090	11400	11100	8270	13800	17700	15100
Selenium	1	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Silicon	4	471	515	584	569	2040	1140	1530
Silver	0.3	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**
Sodium	50	**25**	**25**	**25**	**25**	234	68	96
Strontium	0.4	75.6	88.8	106.0	57.0	49.4	127.0	91.5
Sulphur	20	1170	1820	1390	1280	2240	3170	2910
Thallium	0.02	**0.01**	**0.01**	**0.01**	**0.01**	0.02	0.04	**0.01**
Tin	1	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Titanium	1	**0.5**	1.0	2.0	1.0	57.0	9.0	23.0
Uranium	0.04	**0.02**	**0.02**	**0.02**	**0.02**	0.05	**0.02**	**0.02**
Vanadium	0.6	**0.3**	**0.3**	**0.3**	**0.3**	1.2	**0.3**	**0.3**
Zinc	0.3	109.0	88.9	97.5	161.0	155.0	117.0	178.0
Zirconium	0.1	**0.05**	**0.05**	**0.05**	**0.05**	1.50	0.40	0.30

Notes:

For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL and are shown in ***bold*** *font.*

Data provided by AMEC Foster Wheeler for samples collected in 2011 and 2012.

APPENDIX C CERTIFICATES OF ANALYSIS FOR 2021 SOIL AND VEGETATION TISSUE ANALYSIS

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **VA21B8309**	Page	: 1 of 41
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Nicole Bishop	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Blackwater Project	Date Samples Received	: 25-Aug-2021 10:25
PO	: ----	Date Analysis Commenced	: 01-Sep-2021
C-O-C number	:	Issue Date	: 25-Nov-2021 12:02
Sampler	: JA		
Site	: ----		
Quote number	: VA21-ERMO100-002		
No. of samples received	: 93		
No. of samples analysed	: 93		

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.

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia
Caleb Deroche	Lab Analyst	Metals, Burnaby, British Columbia
Dan Gebert	Laboratory Analyst	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Rebecca Sit	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Shaneel Dayal	Analyst	Metals, Burnaby, 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).

Unit	*Description*
%	percent
mg/kg	milligrams per kilogram
pH units	pH units

<: 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

Qualifier	*Description*
DLHM	*Detection Limit Adjusted: Sample has high moisture content.*

Analytical Results

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

				Client sample ID	CFMP-SV-003-Soil	CFMP-SV-004-Soil	CFMP-SV-005-Soil	CFMP-SV-007-Soil	CFMP-SV-008-Soil
				Client sampling date / time	13-Aug-2021 12:15	12-Aug-2021 16:00	12-Aug-2021 15:00	12-Aug-2021 11:00	12-Aug-2021 08:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-005	VA21B8309-009	VA21B8309-013	VA21B8309-018	VA21B8309-023
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	4.10	4.08	6.34	4.46	5.10
Metals									
aluminum	7429-90-5	E440	50	mg/kg	5720	7430	9780	28900	10400
antimony	7440-36-0	E440	0.10	mg/kg	0.26	0.25	0.44	0.56	0.87
arsenic	7440-38-2	E440	0.10	mg/kg	2.16	2.95	4.18	9.79	16.2
barium	7440-39-3	E440	0.50	mg/kg	36.1	50.8	102	115	69.5
beryllium	7440-41-7	E440	0.10	mg/kg	0.10	0.15	0.40	0.63	0.22
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	0.40	1.15
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.121	0.058	0.674	0.312	0.209
calcium	7440-70-2	E440	50	mg/kg	1410	1160	21800	3570	1270
chromium	7440-47-3	E440	0.50	mg/kg	9.54	6.53	5.46	13.1	8.13
cobalt	7440-48-4	E440	0.10	mg/kg	2.30	2.33	2.11	5.96	2.41
copper	7440-50-8	E440	0.50	mg/kg	4.32	5.22	26.1	16.8	8.96
iron	7439-89-6	E440	50	mg/kg	14500	13400	7830	24900	20500
lead	7439-92-1	E440	0.50	mg/kg	4.32	4.89	3.33	13.6	11.5
lithium	7439-93-2	E440	2.0	mg/kg	2.3	3.8	3.0	17.4	4.7
magnesium	7439-95-4	E440	20	mg/kg	1160	1200	1610	3640	1620
manganese	7439-96-5	E440	1.0	mg/kg	107	92.5	422	568	364
mercury	7439-97-6	E510	0.0050	mg/kg	0.0249	0.0296	0.0638	0.0873	0.0407
molybdenum	7439-98-7	E440	0.10	mg/kg	0.69	0.56	0.85	9.24	2.18
nickel	7440-02-0	E440	0.50	mg/kg	3.18	3.23	7.02	8.90	2.76
phosphorus	7723-14-0	E440	50	mg/kg	313	328	850	700	1250
potassium	7440-09-7	E440	100	mg/kg	480	410	770	1820	630
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0.34	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	1.00	0.19	0.23
sodium	7440-23-5	E440	50	mg/kg	116	62	95	102	63
strontium	7440-24-6	E440	0.50	mg/kg	15.0	11.1	125	46.2	11.2
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	1200	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.070	0.096	0.078	0.233	0.116

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-003-Soil	CFMP-SV-004-Soil	CFMP-SV-005-Soil	CFMP-SV-007-Soil	CFMP-SV-008-Soil
				Client sampling date / time	13-Aug-2021 12:15	12-Aug-2021 16:00	12-Aug-2021 15:00	12-Aug-2021 11:00	12-Aug-2021 08:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-005	VA21B8309-009	VA21B8309-013	VA21B8309-018	VA21B8309-023
					Result	Result	Result	Result	Result
Metals									
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
titanium	7440-32-6	E440	1.0	mg/kg	457	141	71.6	500	600
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.399	0.380	1.51	0.985	0.326
vanadium	7440-62-2	E440	0.20	mg/kg	38.9	42.0	13.2	62.6	40.4
zinc	7440-66-6	E440	2.0	mg/kg	21.8	21.5	20.6	75.8	116
zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	<1.0	3.0	1.4	<1.0

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV21-009-Soil	CFMP-SV21-010-Soil	CFMP-SV-011-Soil	CFMP-SV21-012-Soil	CFMP-SV21-013-Soil
				Client sampling date / time	11-Aug-2021 14:00	11-Aug-2021 15:15	10-Aug-2021 14:15	11-Aug-2021 12:40	11-Aug-2021 11:40
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-027	VA21B8309-032	VA21B8309-036	VA21B8309-039	VA21B8309-043
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	5.44	4.24	6.16	5.46	4.91
Metals									
aluminum	7429-90-5	E440	50	mg/kg	15600	6080	11900	11300	6600
antimony	7440-36-0	E440	0.10	mg/kg	0.36	0.29	0.30	0.39	0.20
arsenic	7440-38-2	E440	0.10	mg/kg	3.52	3.49	3.04	3.22	1.71
barium	7440-39-3	E440	0.50	mg/kg	122	32.1	64.5	142	41.5
beryllium	7440-41-7	E440	0.10	mg/kg	0.61	0.15	0.33	0.26	0.13
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.561	0.065	0.082	0.248	0.035
calcium	7440-70-2	E440	50	mg/kg	7430	800	4270	3730	1710
chromium	7440-47-3	E440	0.50	mg/kg	8.99	7.61	22.8	15.5	9.64
cobalt	7440-48-4	E440	0.10	mg/kg	10.4	1.26	8.18	7.74	2.26
copper	7440-50-8	E440	0.50	mg/kg	28.7	3.53	11.0	7.18	3.26
iron	7439-89-6	E440	50	mg/kg	12100	9700	23400	22400	11600
lead	7439-92-1	E440	0.50	mg/kg	4.64	6.40	4.80	6.83	5.31
lithium	7439-93-2	E440	2.0	mg/kg	5.5	2.4	5.4	7.6	3.9
magnesium	7439-95-4	E440	20	mg/kg	1680	666	3930	3280	1180
manganese	7439-96-5	E440	1.0	mg/kg	1550	111	423	908	128
mercury	7439-97-6	E510	0.0050	mg/kg	0.103	0.0408	0.0155	0.0194	0.0171
molybdenum	7439-98-7	E440	0.10	mg/kg	1.49	0.82	0.47	1.28	0.53
nickel	7440-02-0	E440	0.50	mg/kg	8.05	2.50	16.2	9.11	4.08
phosphorus	7723-14-0	E440	50	mg/kg	1100	280	759	1220	327
potassium	7440-09-7	E440	100	mg/kg	720	390	620	690	360
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	0.88	0.16	<0.10	<0.10	<0.10
sodium	7440-23-5	E440	50	mg/kg	104	85	316	112	72
strontium	7440-24-6	E440	0.50	mg/kg	81.6	9.50	38.9	34.0	15.5
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.093	0.087	0.057	0.076	0.054
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV21-009-Soil	CFMP-SV21-010-Soil	CFMP-SV-011-Soil	CFMP-SV21-012-Soil	CFMP-SV21-013-Soil
				Client sampling date / time	11-Aug-2021 14:00	11-Aug-2021 15:15	10-Aug-2021 14:15	11-Aug-2021 12:40	11-Aug-2021 11:40
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-027	VA21B8309-032	VA21B8309-036	VA21B8309-039	VA21B8309-043
					Result	Result	Result	Result	Result
Metals									
titanium	7440-32-6	E440	1.0	mg/kg	210	711	1550	855	488
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	1.01	0.862	0.361	0.472	0.324
vanadium	7440-62-2	E440	0.20	mg/kg	30.3	26.5	56.7	51.3	30.7
zinc	7440-66-6	E440	2.0	mg/kg	60.9	18.6	50.6	121	25.4
zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	2.7	7.1	2.5	1.4

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV21-015-Soil	CFMP-SV-016-Soil U	CFMP-SV-016-Soil W	CFMP-SV-017-Soil	CFMP-SV-018-Soil
				Client sampling date / time	11-Aug-2021 08:30	10-Aug-2021 09:30	10-Aug-2021 09:30	14-Aug-2021 10:00	13-Aug-2021 01:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-049	VA21B8309-053	VA21B8309-054	VA21B8309-058	VA21B8309-063
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	5.48	5.14	6.79	5.31	5.68
Metals									
aluminum	7429-90-5	E440	50	mg/kg	9410	15500	32200	10300	4640
antimony	7440-36-0	E440	0.10	mg/kg	0.27	0.31	0.29	0.40	0.18
arsenic	7440-38-2	E440	0.10	mg/kg	2.38	3.51	3.24	5.08	1.27
barium	7440-39-3	E440	0.50	mg/kg	76.5	75.3	177	48.1	44.0
beryllium	7440-41-7	E440	0.10	mg/kg	0.24	0.35	0.81	0.24	<0.10
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.079	0.084	0.194	0.051	0.064
calcium	7440-70-2	E440	50	mg/kg	1990	2740	13000	2750	3080
chromium	7440-47-3	E440	0.50	mg/kg	14.4	23.2	26.2	16.5	8.95
cobalt	7440-48-4	E440	0.10	mg/kg	4.24	7.37	5.90	5.09	1.72
copper	7440-50-8	E440	0.50	mg/kg	4.49	7.61	28.9	7.15	3.33
iron	7439-89-6	E440	50	mg/kg	15800	27500	24200	18800	10000
lead	7439-92-1	E440	0.50	mg/kg	6.30	5.82	3.51	6.29	4.20
lithium	7439-93-2	E440	2.0	mg/kg	5.4	7.6	10.5	5.0	2.1
magnesium	7439-95-4	E440	20	mg/kg	1800	3580	5140	2640	926
manganese	7439-96-5	E440	1.0	mg/kg	583	427	339	194	369
mercury	7439-97-6	E510	0.0050	mg/kg	0.0149	0.0177	0.106	0.0219	0.0287
molybdenum	7439-98-7	E440	0.10	mg/kg	0.56	0.61	0.78	0.70	0.60
nickel	7440-02-0	E440	0.50	mg/kg	7.53	14.5	26.8	10.0	3.13
phosphorus	7723-14-0	E440	50	mg/kg	765	670	865	498	327
potassium	7440-09-7	E440	100	mg/kg	670	740	1020	840	520
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0.62	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	0.54	<0.10	<0.10
sodium	7440-23-5	E440	50	mg/kg	78	131	198	113	80
strontium	7440-24-6	E440	0.50	mg/kg	16.8	23.6	96.0	24.6	21.5
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.068	0.074	0.110	0.063	<0.050
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV21-015-Soil	CFMP-SV-016-Soil U	CFMP-SV-016-Soil W	CFMP-SV-017-Soil	CFMP-SV-018-Soil
				Client sampling date / time	11-Aug-2021 08:30	10-Aug-2021 09:30	10-Aug-2021 09:30	14-Aug-2021 10:00	13-Aug-2021 01:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-049	VA21B8309-053	VA21B8309-054	VA21B8309-058	VA21B8309-063
					Result	Result	Result	Result	Result
Metals									
titanium	7440-32-6	E440	1.0	mg/kg	691	1140	300	717	434
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.454	0.406	12.0	0.402	0.301
vanadium	7440-62-2	E440	0.20	mg/kg	41.3	70.9	35.2	46.5	28.6
zinc	7440-66-6	E440	2.0	mg/kg	55.1	71.1	48.2	37.6	24.3
zirconium	7440-67-7	E440	1.0	mg/kg	2.4	4.3	4.3	3.1	<1.0

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

Analytical Results

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

				Client sample ID	CFMP-SV-019-Soil	CFMP-SV-020-Soil	CFMP-SV21-021-Soil U	CFMP-SV21-021-Soil W	CFMP-SV-022-Soil
				Client sampling date / time	14-Aug-2021 09:00	14-Aug-2021 06:30	11-Aug-2021 07:45	11-Aug-2021 07:45	10-Aug-2021 10:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-068	VA21B8309-072	VA21B8309-077	VA21B8309-078	VA21B8309-081
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	5.19	6.57	4.93	6.69	4.66
Metals									
aluminum	7429-90-5	E440	50	mg/kg	17300	819	10000	449	10500
antimony	7440-36-0	E440	0.10	mg/kg	0.25	0.14	0.22	<0.10	0.29
arsenic	7440-38-2	E440	0.10	mg/kg	3.27	3.62	1.81	0.42	3.58
barium	7440-39-3	E440	0.50	mg/kg	87.8	63.3	44.6	57.0	35.4
beryllium	7440-41-7	E440	0.10	mg/kg	0.37	0.14	0.18	<0.10	0.23
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.126	0.090	0.051	0.151	0.118
calcium	7440-70-2	E440	50	mg/kg	4520	10600	1690	26900	1850
chromium	7440-47-3	E440	0.50	mg/kg	23.6	1.77	10.3	0.52	12.8
cobalt	7440-48-4	E440	0.10	mg/kg	6.29	3.42	3.38	0.36	3.12
copper	7440-50-8	E440	0.50	mg/kg	13.0	9.38	3.74	2.32	4.88
iron	7439-89-6	E440	50	mg/kg	22200	11500	15800	972	18100
lead	7439-92-1	E440	0.50	mg/kg	5.55	<0.50	5.14	<0.50	11.9
lithium	7439-93-2	E440	2.0	mg/kg	6.7	<2.0	6.0	<2.0	5.1
magnesium	7439-95-4	E440	20	mg/kg	3070	1490	1660	2180	1500
manganese	7439-96-5	E440	1.0	mg/kg	227	286	237	692	216
mercury	7439-97-6	E510	0.0050	mg/kg	0.0395	0.0763	0.0285	0.0554	0.0415
molybdenum	7439-98-7	E440	0.10	mg/kg	0.51	0.40	0.69	0.95	0.72
nickel	7440-02-0	E440	0.50	mg/kg	12.8	8.86	5.35	0.97	5.04
phosphorus	7723-14-0	E440	50	mg/kg	689	1160	650	397	874
potassium	7440-09-7	E440	100	mg/kg	780	230	490	180	510
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	0.36	<0.20	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	0.12	<0.10	<0.10	<0.10	0.23
sodium	7440-23-5	E440	50	mg/kg	131	<50	73	65	75
strontium	7440-24-6	E440	0.50	mg/kg	41.1	71.8	12.0	155	13.9
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.068	<0.050	0.069	<0.050	0.070
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-019-Soil	CFMP-SV-020-Soil	CFMP-SV21-021-Soil U	CFMP-SV21-021-Soil W	CFMP-SV-022-Soil
				Client sampling date / time	14-Aug-2021 09:00	14-Aug-2021 06:30	11-Aug-2021 07:45	11-Aug-2021 07:45	10-Aug-2021 10:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-068	VA21B8309-072	VA21B8309-077	VA21B8309-078	VA21B8309-081
					Result	Result	Result	Result	Result
Metals									
titanium	7440-32-6	E440	1.0	mg/kg	813	22.9	616	12.5	987
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.448	0.162	0.277	<0.050	0.532
vanadium	7440-62-2	E440	0.20	mg/kg	55.5	29.2	42.1	2.72	46.2
zinc	7440-66-6	E440	2.0	mg/kg	46.0	4.0	50.6	30.7	39.1
zirconium	7440-67-7	E440	1.0	mg/kg	3.2	1.6	2.8	<1.0	3.3

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-023-Soil	CFMP-SV-024-Soil	CFMP-SV-025-Soil	----	----
				Client sampling date / time	13-Aug-2021 07:30	13-Aug-2021 15:00	13-Aug-2021 14:45	----	----
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-084	VA21B8309-089	VA21B8309-092	--------	--------
					Result	Result	Result	----	----
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	5.24	6.43	4.89	----	----
Metals									
aluminum	7429-90-5	E440	50	mg/kg	15500	9180	18100	----	----
antimony	7440-36-0	E440	0.10	mg/kg	0.53	0.24	0.20	----	----
arsenic	7440-38-2	E440	0.10	mg/kg	4.95	2.34	2.74	----	----
barium	7440-39-3	E440	0.50	mg/kg	78.0	98.8	145	----	----
beryllium	7440-41-7	E440	0.10	mg/kg	0.26	0.27	0.85	----	----
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	----	----
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	----	----
cadmium	7440-43-9	E440	0.020	mg/kg	0.087	0.589	0.190	----	----
calcium	7440-70-2	E440	50	mg/kg	2120	18400	4890	----	----
chromium	7440-47-3	E440	0.50	mg/kg	23.0	12.0	12.7	----	----
cobalt	7440-48-4	E440	0.10	mg/kg	6.90	4.25	7.68	----	----
copper	7440-50-8	E440	0.50	mg/kg	12.2	16.7	11.5	----	----
iron	7439-89-6	E440	50	mg/kg	24500	12200	17200	----	----
lead	7439-92-1	E440	0.50	mg/kg	7.16	4.22	7.07	----	----
lithium	7439-93-2	E440	2.0	mg/kg	7.9	3.7	8.0	----	----
magnesium	7439-95-4	E440	20	mg/kg	4420	2580	2450	----	----
manganese	7439-96-5	E440	1.0	mg/kg	384	436	1830	----	----
mercury	7439-97-6	E510	0.0050	mg/kg	0.0426	0.0587	0.0816	----	----
molybdenum	7439-98-7	E440	0.10	mg/kg	0.64	0.71	1.00	----	----
nickel	7440-02-0	E440	0.50	mg/kg	10.8	11.4	10.9	----	----
phosphorus	7723-14-0	E440	50	mg/kg	674	484	1160	----	----
potassium	7440-09-7	E440	100	mg/kg	640	570	1100	----	----
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	0.54	<0.20	----	----
silver	7440-22-4	E440	0.10	mg/kg	0.13	0.18	0.24	----	----
sodium	7440-23-5	E440	50	mg/kg	72	155	99	----	----
strontium	7440-24-6	E440	0.50	mg/kg	15.6	93.4	41.6	----	----
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	----	----
thallium	7440-28-0	E440	0.050	mg/kg	0.065	<0.050	0.106	----	----
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	----	----

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-023-Soil	CFMP-SV-024-Soil	CFMP-SV-025-Soil	----	----
				Client sampling date / time	13-Aug-2021 07:30	13-Aug-2021 15:00	13-Aug-2021 14:45	----	----
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-084	VA21B8309-089	VA21B8309-092	--------	--------
					Result	Result	Result	----	----
Metals									
titanium	7440-32-6	E440	1.0	mg/kg	807	271	392	----	----
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
uranium	7440-61-1	E440	0.050	mg/kg	0.314	1.39	0.633	----	----
vanadium	7440-62-2	E440	0.20	mg/kg	60.3	29.0	39.1	----	----
zinc	7440-66-6	E440	2.0	mg/kg	41.4	24.7	66.3	----	----
zirconium	7440-67-7	E440	1.0	mg/kg	1.5	1.6	<1.0	----	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-003-WILL	CFMP-SV-003-SEDG	CFMP-SV-003-TEA	CFMP-SV-003-HUCK	CFMP-SV-004-WILL
				Client sampling date / time	13-Aug-2021 12:15	13-Aug-2021 12:15	13-Aug-2021 12:15	13-Aug-2021 12:15	12-Aug-2021 16:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-001	VA21B8309-002	VA21B8309-003	VA21B8309-004	VA21B8309-006
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	67.7	61.9	52.0	----	63.6
moisture	----	E144-H	2.0	%	----	----	----	84.3	----
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	10.8	3.9	18.6	----	12.4
aluminum	7429-90-5	E472	5.0	mg/kg	----	----	----	58.2	----
antimony	7440-36-0	E472	0.010	mg/kg	----	----	----	<0.010	----
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	----	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	0.023	<0.020	----	0.023
arsenic	7440-38-2	E472	0.030	mg/kg	----	----	----	<0.030	----
barium	7440-39-3	E472	0.050	mg/kg	----	----	----	42.2	----
barium	7440-39-3	E440	0.050	mg/kg	15.6	67.2	82.7	----	12.6
beryllium	7440-41-7	E472	0.010	mg/kg	----	----	----	<0.010	----
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	----	<0.010
bismuth	7440-69-9	E472	0.010	mg/kg	----	----	----	<0.010	----
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	----	<0.010
boron	7440-42-8	E472	1.0	mg/kg	----	----	----	10.5	----
boron	7440-42-8	E440	1.0	mg/kg	9.1	3.6	12.5	----	11.4
cadmium	7440-43-9	E440	0.0050	mg/kg	0.877	<0.0050	0.0065	----	0.0540
cadmium	7440-43-9	E472	0.010	mg/kg	----	----	----	0.036	----
calcium	7440-70-2	E472	20	mg/kg	----	----	----	2260	----
calcium	7440-70-2	E440	20	mg/kg	13000	5950	5210	----	12600
cesium	7440-46-2	E472	0.0050	mg/kg	----	----	----	0.0705	----
cesium	7440-46-2	E440	0.0050	mg/kg	0.0463	0.0796	0.0304	----	0.0943
chromium	7440-47-3	E440	0.050	mg/kg	0.059	0.154	<0.050	----	0.064
chromium	7440-47-3	E472	0.20	mg/kg	----	----	----	0.25	----
cobalt	7440-48-4	E472	0.020	mg/kg	----	----	----	0.027	----
cobalt	7440-48-4	E440	0.020	mg/kg	0.377	0.043	<0.020	----	0.102
copper	7440-50-8	E440	0.10	mg/kg	3.10	2.65	3.15	----	3.27
copper	7440-50-8	E472	0.20	mg/kg	----	----	----	8.79	----
iron	7439-89-6	E440	3.0	mg/kg	37.2	44.9	30.0	----	51.1
iron	7439-89-6	E472	5.0	mg/kg	----	----	----	38.8	----

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-003-WILL	CFMP-SV-003-SEDG	CFMP-SV-003-TEA	CFMP-SV-003-HUCK	CFMP-SV-004-WILL
				Client sampling date / time	13-Aug-2021 12:15	13-Aug-2021 12:15	13-Aug-2021 12:15	13-Aug-2021 12:15	12-Aug-2021 16:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-001	VA21B8309-002	VA21B8309-003	VA21B8309-004	VA21B8309-006
					Result	Result	Result	Result	Result
Metals									
lead	7439-92-1	E440	0.020	mg/kg	<0.020	0.022	<0.020	----	0.028
lead	7439-92-1	E472	0.050	mg/kg	----	----	----	<0.050	----
lithium	7439-93-2	E472	0.50	mg/kg	----	----	----	<0.50	----
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	----	<0.50
magnesium	7439-95-4	E472	2.0	mg/kg	----	----	----	965	----
magnesium	7439-95-4	E440	2.0	mg/kg	2920	1500	1030	----	2440
manganese	7439-96-5	E472	0.050	mg/kg	----	----	----	503	----
manganese	7439-96-5	E440	0.050	mg/kg	477	332	1650	----	183
mercury	7439-97-6	E511	0.0050	mg/kg	----	----	----	0.0138	----
mercury	7439-97-6	E510	0.0050	mg/kg	0.0096	<0.0050	0.0141	----	0.0094
molybdenum	7439-98-7	E440	0.020	mg/kg	0.180	0.278	0.063	----	0.427
molybdenum	7439-98-7	E472	0.040	mg/kg	----	----	----	0.507	----
nickel	7440-02-0	E472	0.20	mg/kg	----	----	----	0.57	----
nickel	7440-02-0	E440	0.20	mg/kg	0.25	<0.20	<0.20	----	<0.20
phosphorus	7723-14-0	E472	10	mg/kg	----	----	----	2160	----
phosphorus	7723-14-0	E440	10	mg/kg	1590	1200	1380	----	1640
potassium	7440-09-7	E472	20	mg/kg	----	----	----	8060	----
potassium	7440-09-7	E440	20	mg/kg	24500	11800	5500	----	14300
rubidium	7440-17-7	E472	0.050	mg/kg	----	----	----	22.8	----
rubidium	7440-17-7	E440	0.050	mg/kg	22.4	8.19	6.55	----	11.4
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	----	<0.050
selenium	7782-49-2	E472	0.10	mg/kg	----	----	----	<0.10	----
silver	7440-22-4	E472.Ag	0.0050	mg/kg	----	----	----	0.0052	----
silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0075	<0.0050	<0.0050	----	<0.0050
sodium	7440-23-5	E472	20	mg/kg	----	----	----	357	----
sodium	7440-23-5	E440	20	mg/kg	<20	158	<20	----	<20
strontium	7440-24-6	E440	0.050	mg/kg	111	51.2	18.6	----	71.6
strontium	7440-24-6	E472	0.10	mg/kg	----	----	----	5.31	----
tellurium	13494-80-9	E472	0.020	mg/kg	----	----	----	<0.020	----
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	----	<0.020
thallium	7440-28-0	E472	0.0020	mg/kg	----	----	----	0.0076	----

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-003-WILL	CFMP-SV-003-SEDG	CFMP-SV-003-TEA	CFMP-SV-003-HUCK	CFMP-SV-004-WILL
				Client sampling date / time	13-Aug-2021 12:15	13-Aug-2021 12:15	13-Aug-2021 12:15	13-Aug-2021 12:15	12-Aug-2021 16:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-001	VA21B8309-002	VA21B8309-003	VA21B8309-004	VA21B8309-006
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	0.0057	<0.0020	----	<0.0020
tin	7440-31-5	E472	0.10	mg/kg	----	----	----	14.3	----
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	----	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.50	<0.25	0.61	----	1.21
titanium	7440-32-6	E472.Ti	0.50	mg/kg	----	----	----	0.57	----
uranium	7440-61-1	E472	0.0020	mg/kg	----	----	----	<0.0020	----
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	----	<0.0020
vanadium	7440-62-2	E472	0.10	mg/kg	----	----	----	<0.10	----
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	----	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	28.6	12.2	23.0	----	106
zinc	7440-66-6	E472	1.0	mg/kg	----	----	----	15.4	----
zirconium	7440-67-7	E472	0.20	mg/kg	----	----	----	<0.20	----
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	----	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	<0.025	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	----	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-004-SEDG	CFMP-SV-004-TEA	CFMP-SV-005-WILL	CFMP-SV-005-TEA	CFMP-SV-005-SOAP
				Client sampling date / time	12-Aug-2021 16:00	12-Aug-2021 16:00	12-Aug-2021 15:00	12-Aug-2021 15:00	12-Aug-2021 15:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-007	VA21B8309-008	VA21B8309-010	VA21B8309-011	VA21B8309-012
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	60.7	56.3	67.8	54.1	83.8
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	3.1	28.5	6.6	28.8	<2.0
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	0.076	<0.020	0.026	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	12.0	83.8	8.24	67.8	1.20
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	3.2	25.1	12.8	19.8	16.5
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	0.0055	0.615	<0.0050	0.0166
calcium	7440-70-2	E440	20	mg/kg	4370	5120	15400	5900	1010
cesium	7440-46-2	E440	0.0050	mg/kg	0.251	0.0568	0.0314	0.0459	0.0077
chromium	7440-47-3	E440	0.050	mg/kg	0.053	<0.050	0.063	0.065	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.082	<0.020	0.283	<0.020	<0.020
copper	7440-50-8	E440	0.10	mg/kg	3.30	3.28	4.89	3.43	4.05
iron	7439-89-6	E440	3.0	mg/kg	149	31.4	41.8	46.8	19.8
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1020	1260	2650	1140	559
manganese	7439-96-5	E440	0.050	mg/kg	440	1770	102	310	12.4
mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0121	0.0090	0.0111	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	4.24	0.235	0.666	0.245	1.13
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0.79	<0.20	1.64
phosphorus	7723-14-0	E440	10	mg/kg	1630	1490	2040	1500	1800
potassium	7440-09-7	E440	20	mg/kg	16800	6400	20600	6370	12200
rubidium	7440-17-7	E440	0.050	mg/kg	13.0	10.4	13.4	9.14	12.9
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0.0092	<0.0050	0.0077
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	20.2	15.6	83.1	26.4	4.78
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-004-SEDG	CFMP-SV-004-TEA	CFMP-SV-005-WILL	CFMP-SV-005-TEA	CFMP-SV-005-SOAP
				Client sampling date / time	12-Aug-2021 16:00	12-Aug-2021 16:00	12-Aug-2021 15:00	12-Aug-2021 15:00	12-Aug-2021 15:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-007	VA21B8309-008	VA21B8309-010	VA21B8309-011	VA21B8309-012
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	0.0109	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0.11	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	0.65	0.60	0.98	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	0.0029	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	25.0	27.5	47.8	23.0	10.1
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	----	<0.025	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	----	<0.0050	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	----	<0.0050	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	----	<0.0050	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	----	<0.0050	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	----	<0.0050	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-007-WILL	CFMP-SV-007-SEDGE	CFMP-SV-007-TEA	CFMP-SV-007-HUCK	CFMP-SV-008-WILL
				Client sampling date / time	12-Aug-2021 11:00	12-Aug-2021 11:00	12-Aug-2021 11:00	12-Aug-2021 11:00	12-Aug-2021 08:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-014	VA21B8309-015	VA21B8309-016	VA21B8309-017	VA21B8309-019
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	70.8	66.8	50.4	85.6	72.6
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	12.7	18.7	16.5	29.8	8.5
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	0.066	0.126	<0.020	<0.020	0.063
barium	7440-39-3	E440	0.050	mg/kg	18.4	26.0	69.7	9.58	75.1
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	16.3	4.5	7.5	8.9	22.8
cadmium	7440-43-9	E440	0.0050	mg/kg	0.621	0.0124	<0.0050	0.0097	3.59
calcium	7440-70-2	E440	20	mg/kg	13500	3860	4750	776	16600
cesium	7440-46-2	E440	0.0050	mg/kg	0.0978	0.672	0.0352	0.0829	0.0684
chromium	7440-47-3	E440	0.050	mg/kg	0.067	<0.050	<0.050	0.064	0.057
cobalt	7440-48-4	E440	0.020	mg/kg	1.26	0.059	<0.020	<0.020	0.195
copper	7440-50-8	E440	0.10	mg/kg	4.76	3.58	2.42	5.26	5.88
iron	7439-89-6	E440	3.0	mg/kg	54.6	113	28.4	19.8	47.7
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	0.025	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	2730	1010	1220	583	4290
manganese	7439-96-5	E440	0.050	mg/kg	360	436	1500	250	332
mercury	7439-97-6	E510	0.0050	mg/kg	0.0140	0.0069	0.0112	<0.0050	0.0074
molybdenum	7439-98-7	E440	0.020	mg/kg	2.28	9.86	2.35	0.158	0.761
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	1.48
phosphorus	7723-14-0	E440	10	mg/kg	2110	2040	1450	1720	3790
potassium	7440-09-7	E440	20	mg/kg	23500	18900	6500	8020	22200
rubidium	7440-17-7	E440	0.050	mg/kg	31.5	30.1	11.5	24.0	26.0
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0069	0.0079	<0.0050	<0.0050	0.0144
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	57	<20
strontium	7440-24-6	E440	0.050	mg/kg	98.0	35.6	20.7	1.59	118
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-007-WILL	CFMP-SV-007-SEDGE	CFMP-SV-007-TEA	CFMP-SV-007-HUCK	CFMP-SV-008-WILL
				Client sampling date / time	12-Aug-2021 11:00	12-Aug-2021 11:00	12-Aug-2021 11:00	12-Aug-2021 11:00	12-Aug-2021 08:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-014	VA21B8309-015	VA21B8309-016	VA21B8309-017	VA21B8309-019
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	0.0025	0.0022	<0.0020	<0.0020	0.0045
tin	7440-31-5	E440	0.10	mg/kg	<0.10	0.43	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.69	0.73	0.57	<0.25	0.59
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	36.4	42.9	22.1	7.55	197
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	<0.025	<0.025	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-008-SEDG	CFMP-SV-008-TEA	CFMP-SV-008-HUCK	CFMP-SV21-009-WILL	CFMP-SV21-009-SEDG
				Client sampling date / time	12-Aug-2021 08:15	12-Aug-2021 08:15	12-Aug-2021 08:15	11-Aug-2021 14:00	11-Aug-2021 14:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-020	VA21B8309-021	VA21B8309-022	VA21B8309-024	VA21B8309-025
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	71.7	56.1	86.4	68.0	61.5
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	8.8	72.2	24.4	17.2	5.9
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	0.140	0.020	<0.020	0.036	<0.020
barium	7440-39-3	E440	0.050	mg/kg	49.5	66.4	13.6	32.2	60.7
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	5.8	14.2	7.8	10.6	4.0
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0239	<0.0050	0.0215	1.24	0.0221
calcium	7440-70-2	E440	20	mg/kg	4020	4820	1090	14500	4970
cesium	7440-46-2	E440	0.0050	mg/kg	0.265	0.0613	0.0323	0.250	1.65
chromium	7440-47-3	E440	0.050	mg/kg	0.066	<0.050	<0.050	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.039	<0.020	<0.020	0.611	0.034
copper	7440-50-8	E440	0.10	mg/kg	3.44	2.70	3.50	4.70	2.90
iron	7439-89-6	E440	3.0	mg/kg	128	35.6	11.8	84.6	54.1
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1730	1090	616	3940	2590
manganese	7439-96-5	E440	0.050	mg/kg	320	2220	294	723	364
mercury	7439-97-6	E510	0.0050	mg/kg	0.0059	0.0102	<0.0050	0.0096	0.0061
molybdenum	7439-98-7	E440	0.020	mg/kg	12.0	0.448	1.14	0.358	4.96
nickel	7440-02-0	E440	0.20	mg/kg	0.26	0.21	<0.20	0.37	0.38
phosphorus	7723-14-0	E440	10	mg/kg	2270	1420	1200	2710	1420
potassium	7440-09-7	E440	20	mg/kg	20200	5120	7660	14000	9010
rubidium	7440-17-7	E440	0.050	mg/kg	17.7	12.9	16.2	35.2	45.8
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0103
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	27.7	5.93	1.77	129	45.0
tellurium	13494-80-9	E440	0.020	mg/kg	0.023	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-008-SEDG	CFMP-SV-008-TEA	CFMP-SV-008-HUCK	CFMP-SV21-009-WILL	CFMP-SV21-009-SEDG
				Client sampling date / time	12-Aug-2021 08:15	12-Aug-2021 08:15	12-Aug-2021 08:15	11-Aug-2021 14:00	11-Aug-2021 14:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-020	VA21B8309-021	VA21B8309-022	VA21B8309-024	VA21B8309-025
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	0.0026	<0.0020	<0.0020	0.0073	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	0.30	<0.10	<0.10	<0.10	0.41
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.47	1.08	<0.25	0.47	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	47.8	23.4	6.31	158	21.6
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	<0.025	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	0.0055	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV21-009-TEA	CFMP-SV21-010-WILL	CFMP-SV21-010-SEDG	CFMP-SV21-010-TEA	CFMP-SV21-010-HUCK
				Client sampling date / time	11-Aug-2021 14:00	11-Aug-2021 15:15	11-Aug-2021 15:15	11-Aug-2021 15:15	11-Aug-2021 15:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-026	VA21B8309-028	VA21B8309-029	VA21B8309-030	VA21B8309-031
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	53.4	69.1	68.6	56.2	88.4
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	25.6	141	4.3	18.8	30.4
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0.024	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	44.6	47.8	25.5	66.5	18.3
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	3.3	9.6	3.2	15.4	7.9
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	0.0364	0.0153	0.0066	<0.0050
calcium	7440-70-2	E440	20	mg/kg	4930	8110	4050	4940	1410
cesium	7440-46-2	E440	0.0050	mg/kg	0.402	0.263	0.330	0.0581	0.206
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	0.834
cobalt	7440-48-4	E440	0.020	mg/kg	0.039	0.113	0.074	<0.020	<0.020
copper	7440-50-8	E440	0.10	mg/kg	2.85	4.41	1.30	3.00	4.94
iron	7439-89-6	E440	3.0	mg/kg	40.0	44.9	56.8	27.5	18.2
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	1.26	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1080	3690	1960	1440	819
manganese	7439-96-5	E440	0.050	mg/kg	754	273	255	766	265
mercury	7439-97-6	E510	0.0050	mg/kg	0.0092	0.0077	<0.0050	0.0137	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	0.700	0.701	3.60	0.394	0.472
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	0.88	<0.20	<0.20	0.61
phosphorus	7723-14-0	E440	10	mg/kg	1360	4890	1680	1420	1720
potassium	7440-09-7	E440	20	mg/kg	5480	16700	13100	5730	8640
rubidium	7440-17-7	E440	0.050	mg/kg	37.3	95.0	17.4	12.8	53.9
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	27.6	19.3	39.6	16.9	5.99
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV21-009-TEA	CFMP-SV21-010-WILL	CFMP-SV21-010-SEDG	CFMP-SV21-010-TEA	CFMP-SV21-010-HUCK
				Client sampling date / time	11-Aug-2021 14:00	11-Aug-2021 15:15	11-Aug-2021 15:15	11-Aug-2021 15:15	11-Aug-2021 15:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-026	VA21B8309-028	VA21B8309-029	VA21B8309-030	VA21B8309-031
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0.0178	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.74	0.72	<0.25	0.55	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	19.9	25.4	21.5	20.3	9.22
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----	----	<0.025	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-011-WILL	CFMP-SV-011-BLUE	CFMP-SV-011-SOAP	CFMP-SV21-012-WILL	CFMP-SV21-012-SOAP
				Client sampling date / time	10-Aug-2021 14:15	10-Aug-2021 14:15	10-Aug-2021 14:15	11-Aug-2021 12:40	11-Aug-2021 12:40
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-033	VA21B8309-034	VA21B8309-035	VA21B8309-037	VA21B8309-038
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	64.1	83.8	76.1	60.1	83.1
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	8.9	13.3	3.4	8.6	3.2
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	20.2	14.4	1.40	41.9	1.54
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	28.6	11.2	11.5	5.1	15.6
cadmium	7440-43-9	E440	0.0050	mg/kg	1.22	0.0093	<0.0050	1.17	0.0110
calcium	7440-70-2	E440	20	mg/kg	14500	1010	725	12000	827
cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	0.0068	<0.0050	0.0059	<0.0050
chromium	7440-47-3	E440	0.050	mg/kg	0.281	<0.050	<0.050	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.534	<0.020	<0.020	0.264	<0.020
copper	7440-50-8	E440	0.10	mg/kg	4.97	4.18	3.38	3.24	5.61
iron	7439-89-6	E440	3.0	mg/kg	63.5	16.9	20.8	42.8	24.0
lead	7439-92-1	E440	0.020	mg/kg	<0.020	0.049	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	3330	737	606	2200	640
manganese	7439-96-5	E440	0.050	mg/kg	229	296	13.3	96.2	15.1
mercury	7439-97-6	E510	0.0050	mg/kg	0.0074	<0.0050	<0.0050	0.0088	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	1.09	1.75	2.01	0.474	5.09
nickel	7440-02-0	E440	0.20	mg/kg	2.16	<0.20	3.07	0.49	1.84
phosphorus	7723-14-0	E440	10	mg/kg	3600	1680	1940	2300	1940
potassium	7440-09-7	E440	20	mg/kg	11600	8330	11100	12300	12800
rubidium	7440-17-7	E440	0.050	mg/kg	2.94	4.67	7.64	5.01	8.65
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0117
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	104	5.90	5.48	81.2	4.54
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-011-WILL	CFMP-SV-011-BLUE	CFMP-SV-011-SOAP	CFMP-SV21-012-WILL	CFMP-SV21-012-SOAP
				Client sampling date / time	10-Aug-2021 14:15	10-Aug-2021 14:15	10-Aug-2021 14:15	11-Aug-2021 12:40	11-Aug-2021 12:40
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-033	VA21B8309-034	VA21B8309-035	VA21B8309-037	VA21B8309-038
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.73	<0.25	<0.25	0.58	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	140	7.75	7.86	79.6	8.34
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	<0.025	----	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV21-01 3-WILL	CFMP-SV21-01 3-SOAP	CFMP-SV21-01 3-TEA	CFMP-SV21-01 5-SEDG	CFMP-SV21-01 5-TEA
				Client sampling date / time	11-Aug-2021 11:40	11-Aug-2021 11:40	11-Aug-2021 11:40	11-Aug-2021 08:30	11-Aug-2021 08:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-040	VA21B8309-041	VA21B8309-042	VA21B8309-044	VA21B8309-045
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	63.9	81.4	54.7	57.6	55.6
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	11.0	5.8	36.9	23.7	45.5
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	0.066	<0.020
barium	7440-39-3	E440	0.050	mg/kg	13.4	1.94	53.2	29.6	104
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	17.8	10.5	14.2	4.8	8.9
cadmium	7440-43-9	E440	0.0050	mg/kg	0.814	<0.0050	<0.0050	0.0148	<0.0050
calcium	7440-70-2	E440	20	mg/kg	16400	822	4450	3440	4430
cesium	7440-46-2	E440	0.0050	mg/kg	0.0110	<0.0050	0.0462	<0.0050	0.0167
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	<0.050	0.051	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.467	<0.020	0.023	0.063	<0.020
copper	7440-50-8	E440	0.10	mg/kg	4.12	4.42	3.62	6.55	3.97
iron	7439-89-6	E440	3.0	mg/kg	43.2	24.0	47.4	156	34.8
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	0.022	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	4100	551	1240	1260	949
manganese	7439-96-5	E440	0.050	mg/kg	103	14.3	1850	613	2240
mercury	7439-97-6	E510	0.0050	mg/kg	0.0085	<0.0050	0.0101	0.0085	0.0063
molybdenum	7439-98-7	E440	0.020	mg/kg	0.450	0.684	0.243	2.28	0.805
nickel	7440-02-0	E440	0.20	mg/kg	0.66	2.80	0.20	<0.20	0.40
phosphorus	7723-14-0	E440	10	mg/kg	3300	1610	1500	1760	1650
potassium	7440-09-7	E440	20	mg/kg	14200	11100	5270	19000	5140
rubidium	7440-17-7	E440	0.050	mg/kg	4.19	8.22	5.23	2.94	6.23
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	0.104	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0134	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	106	7.39	11.0	16.6	9.33
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV21-01 3-WILL	CFMP-SV21-01 3-SOAP	CFMP-SV21-01 3-TEA	CFMP-SV21-01 5-SEDG	CFMP-SV21-01 5-TEA
				Client sampling date / time	11-Aug-2021 11:40	11-Aug-2021 11:40	11-Aug-2021 11:40	11-Aug-2021 08:30	11-Aug-2021 08:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-040	VA21B8309-041	VA21B8309-042	VA21B8309-044	VA21B8309-045
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.96	0.32	1.52	0.70	0.39
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	84.0	8.13	28.1	16.8	26.1
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	<0.025	----	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV21-015-BLUE	CFMP-SV21-015-WILL	CFMP-SV21-015-SOAP	CFMP-SV-016-WILL	CFMP-SV-016-SEDG
				Client sampling date / time	11-Aug-2021 08:30	11-Aug-2021 08:30	11-Aug-2021 08:30	10-Aug-2021 09:30	10-Aug-2021 09:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-046	VA21B8309-047	VA21B8309-048	VA21B8309-050	VA21B8309-051
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	84.4	60.8	76.5	62.4	61.5
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	33.2	7.4	5.1	11.9	18.1
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	0.028	<0.020	<0.020	0.026
barium	7440-39-3	E440	0.050	mg/kg	11.8	34.4	2.01	4.95	36.2
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	7.9	26.4	7.9	18.6	10.5
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0130	2.21	0.0064	0.274	0.0050
calcium	7440-70-2	E440	20	mg/kg	1070	15400	957	9310	4440
cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	0.0071	0.0135	0.0092	0.0511
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0.053	<0.050	0.132
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.267	<0.020	0.854	0.040
copper	7440-50-8	E440	0.10	mg/kg	5.18	4.04	4.21	4.26	1.36
iron	7439-89-6	E440	3.0	mg/kg	18.2	46.5	23.1	52.2	50.8
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0.029	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	602	1830	530	3950	1440
manganese	7439-96-5	E440	0.050	mg/kg	330	411	14.8	215	387
mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0076	<0.0050	0.0079	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	0.538	0.603	1.59	0.868	3.10
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	0.41	2.20	1.42	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	1460	3710	1860	3330	1660
potassium	7440-09-7	E440	20	mg/kg	8140	18500	9400	13100	19200
rubidium	7440-17-7	E440	0.050	mg/kg	5.18	3.18	7.24	4.03	5.76
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0.0104	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	39	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	4.68	117	6.38	54.0	27.0
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV21-015-BLUE	CFMP-SV21-015-WILL	CFMP-SV21-015-SOAP	CFMP-SV-016-WILL	CFMP-SV-016-SEDG
				Client sampling date / time	11-Aug-2021 08:30	11-Aug-2021 08:30	11-Aug-2021 08:30	10-Aug-2021 09:30	10-Aug-2021 09:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-046	VA21B8309-047	VA21B8309-048	VA21B8309-050	VA21B8309-051
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	0.51	<0.25	1.03	1.61
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	7.40	161	9.44	80.4	13.7
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----	<0.025	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-016-SOAP	CFMP-SV-017-WILL	CFMP-SV-017-SEDGE	CFMP-SV-017-TEA	CFMP-SV-018-WILL
				Client sampling date / time	10-Aug-2021 09:30	14-Aug-2021 10:00	14-Aug-2021 10:00	14-Aug-2021 10:00	13-Aug-2021 01:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-052	VA21B8309-055	VA21B8309-056	VA21B8309-057	VA21B8309-059
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	77.7	65.7	63.4	55.1	66.5
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	3.0	34.6	5.1	28.9	9.2
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0.047	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020
barium	7440-39-3	E440	0.050	mg/kg	1.43	41.6	13.6	56.5	31.7
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	9.3	3.6	4.0	16.9	21.1
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0054	0.801	0.0055	<0.0050	2.70
calcium	7440-70-2	E440	20	mg/kg	1150	8540	4960	6460	13800
cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	0.0075	0.0592	0.0294	0.0121
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.059	0.060	<0.050	0.120
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.520	<0.020	<0.020	0.684
copper	7440-50-8	E440	0.10	mg/kg	5.10	3.19	0.77	2.45	4.65
iron	7439-89-6	E440	3.0	mg/kg	31.9	67.5	36.5	31.1	57.4
lead	7439-92-1	E440	0.020	mg/kg	<0.020	0.022	<0.020	0.036	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	660	1710	1730	1220	2020
manganese	7439-96-5	E440	0.050	mg/kg	12.8	267	336	1810	526
mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0074	0.0055	0.0106	0.0078
molybdenum	7439-98-7	E440	0.020	mg/kg	2.27	0.292	0.156	0.098	0.781
nickel	7440-02-0	E440	0.20	mg/kg	3.97	0.94	<0.20	<0.20	2.36
phosphorus	7723-14-0	E440	10	mg/kg	2160	2320	2100	1360	3940
potassium	7440-09-7	E440	20	mg/kg	11300	16100	14600	6180	18600
rubidium	7440-17-7	E440	0.050	mg/kg	10.8	4.25	3.00	4.10	5.48
selenium	7782-49-2	E440	0.050	mg/kg	0.169	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	6.50	68.5	29.0	17.1	120
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-016-SOAP	CFMP-SV-017-WILL	CFMP-SV-017-SEDGE	CFMP-SV-017-TEA	CFMP-SV-018-WILL
				Client sampling date / time	10-Aug-2021 09:30	14-Aug-2021 10:00	14-Aug-2021 10:00	14-Aug-2021 10:00	13-Aug-2021 01:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-052	VA21B8309-055	VA21B8309-056	VA21B8309-057	VA21B8309-059
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	0.0024	<0.0020	<0.0020	0.0023
tin	7440-31-5	E440	0.10	mg/kg	<0.10	0.12	0.16	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	2.26	0.37	0.70	0.52
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	11.8	33.9	46.8	22.4	132
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----	----	<0.025 DLHM	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-018-S EDGE	CFMP-SV-018-T EA	CFMP-SV-018-S OAP	CFMP-SV-019-WILL	CFMP-SV-019-S EDGE
				Client sampling date / time	13-Aug-2021 01:30	13-Aug-2021 01:30	13-Aug-2021 01:30	14-Aug-2021 09:00	14-Aug-2021 09:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-060	VA21B8309-061	VA21B8309-062	VA21B8309-064	VA21B8309-065
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	68.9	55.0	74.9	67.3	67.7
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	4.4	34.0	268	12.1	3.7
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0.011	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0.088	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	27.3	93.5	8.69	7.92	60.9
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	10.3	15.0	13.3	35.6	7.1
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0.0116	0.0121	<0.0050
calcium	7440-70-2	E440	20	mg/kg	5440	5360	1500	18700	8940
cesium	7440-46-2	E440	0.0050	mg/kg	0.0704	0.164	0.0537	0.0080	0.0168
chromium	7440-47-3	E440	0.050	mg/kg	0.050	0.053	0.375	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.025	0.095	0.207	0.130
copper	7440-50-8	E440	0.10	mg/kg	1.63	2.54	5.35	3.16	0.94
iron	7439-89-6	E440	3.0	mg/kg	48.4	33.4	304	40.5	61.1
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0.252	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1980	1540	710	4190	1810
manganese	7439-96-5	E440	0.050	mg/kg	117	1820	34.1	58.6	1010
mercury	7439-97-6	E510	0.0050	mg/kg	0.0081	0.0096	<0.0050	0.0104	0.0090
molybdenum	7439-98-7	E440	0.020	mg/kg	0.865	0.225	1.44	0.904	0.404
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	0.21	2.48	<0.20	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	1540	1300	2140	4880	1960
potassium	7440-09-7	E440	20	mg/kg	15900	5580	11200	19300	14700
rubidium	7440-17-7	E440	0.050	mg/kg	12.0	6.66	5.73	7.58	4.76
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0.0120	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	27	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	37.2	17.2	10.1	126	73.3
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-018-S EDGE	CFMP-SV-018-T EA	CFMP-SV-018-S OAP	CFMP-SV-019-WILL	CFMP-SV-019-S EDGE
				Client sampling date / time	13-Aug-2021 01:30	13-Aug-2021 01:30	13-Aug-2021 01:30	14-Aug-2021 09:00	14-Aug-2021 09:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-060	VA21B8309-061	VA21B8309-062	VA21B8309-064	VA21B8309-065
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	0.0048	<0.0020	0.0028	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	0.18	0.14
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.26	0.72	16.8	0.53	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0.0178	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0.84	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	31.9	28.8	14.6	39.8	9.98
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025 DLHM	<0.025 DLHM	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-019-TEA	CFMP-SV-019-SOAP	CFMP-SV-020-WILL	CFMP-SV-020-SEDG	CFMP-SV-020-BLUE
				Client sampling date / time	14-Aug-2021 09:00	14-Aug-2021 09:00	14-Aug-2021 06:30	14-Aug-2021 06:30	14-Aug-2021 06:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-066	VA21B8309-067	VA21B8309-069	VA21B8309-070	VA21B8309-071
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	54.2	81.9	68.0	69.4	85.1
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	17.5	<2.0	10.0	6.3	20.4
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0.031	0.046	<0.020
barium	7440-39-3	E440	0.050	mg/kg	81.4	0.598	7.39	32.1	11.0
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	20.6	13.6	8.6	8.4	10.2
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0.303	0.0070	<0.0050
calcium	7440-70-2	E440	20	mg/kg	5960	733	13600	4850	957
cesium	7440-46-2	E440	0.0050	mg/kg	0.0162	<0.0050	0.0728	0.0921	<0.0050
chromium	7440-47-3	E440	0.050	mg/kg	0.060	<0.050	0.070	0.183	0.106
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0.822	0.080	<0.020
copper	7440-50-8	E440	0.10	mg/kg	2.47	3.90	2.87	1.61	4.88
iron	7439-89-6	E440	3.0	mg/kg	34.6	23.2	48.8	92.1	16.6
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1150	545	4470	1860	602
manganese	7439-96-5	E440	0.050	mg/kg	674	10.4	224	510	310
mercury	7439-97-6	E510	0.0050	mg/kg	0.0137	<0.0050	0.0087	0.0072	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	0.138	1.28	1.37	3.80	0.592
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	2.46	0.58	<0.20	0.25
phosphorus	7723-14-0	E440	10	mg/kg	1230	2060	5510	1700	1600
potassium	7440-09-7	E440	20	mg/kg	5530	10800	15000	17000	9420
rubidium	7440-17-7	E440	0.050	mg/kg	3.00	5.10	8.32	8.10	4.81
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0.082	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	40.7	4.74	79.7	29.8	4.62
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-019-TEA	CFMP-SV-019-SOAP	CFMP-SV-020-WILL	CFMP-SV-020-SEDG	CFMP-SV-020-BLUE
				Client sampling date / time	14-Aug-2021 09:00	14-Aug-2021 09:00	14-Aug-2021 06:30	14-Aug-2021 06:30	14-Aug-2021 06:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-066	VA21B8309-067	VA21B8309-069	VA21B8309-070	VA21B8309-071
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	0.0079	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	1.08
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.75	<0.25	0.72	0.40	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	24.9	10.4	18.7	18.8	6.91
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025 DLHM	<0.025 DLHM	----	----	<0.025 DLHM
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV21-021-WILL	CFMP-SV21-021-SEDG	CFMP-SV21-021-TEA	CFMP-SV21-021-SOAP	CFMP-SV-022-WILL
				Client sampling date / time	11-Aug-2021 07:45	11-Aug-2021 07:45	11-Aug-2021 07:45	11-Aug-2021 07:45	10-Aug-2021 10:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-073	VA21B8309-074	VA21B8309-075	VA21B8309-076	VA21B8309-079
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	68.0	64.5	55.4	80.6	62.2
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	15.0	4.6	18.8	22.1	72.0
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	0.025	<0.020	<0.020	0.034
barium	7440-39-3	E440	0.050	mg/kg	3.46	52.9	77.6	1.59	105
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.023
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	19.4	6.2	23.9	11.7	18.8
cadmium	7440-43-9	E440	0.0050	mg/kg	0.160	0.0116	<0.0050	0.0059	1.72
calcium	7440-70-2	E440	20	mg/kg	11100	7040	5550	791	10500
cesium	7440-46-2	E440	0.0050	mg/kg	0.0230	0.0713	0.0124	<0.0050	0.0171
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.054	0.102	<0.050	0.080
cobalt	7440-48-4	E440	0.020	mg/kg	0.239	<0.020	<0.020	0.023	0.520
copper	7440-50-8	E440	0.10	mg/kg	2.67	3.53	2.54	4.85	3.15
iron	7439-89-6	E440	3.0	mg/kg	71.6	58.8	47.2	32.0	88.3
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.098
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	3720	1530	1380	546	2520
manganese	7439-96-5	E440	0.050	mg/kg	180	362	718	24.9	155
mercury	7439-97-6	E510	0.0050	mg/kg	0.0073	0.0068	0.0129	<0.0050	0.0053
molybdenum	7439-98-7	E440	0.020	mg/kg	0.629	0.985	0.411	1.95	0.093
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	<0.20	2.10	1.04
phosphorus	7723-14-0	E440	10	mg/kg	2090	1570	1340	1750	2390
potassium	7440-09-7	E440	20	mg/kg	20500	14300	6110	11300	12200
rubidium	7440-17-7	E440	0.050	mg/kg	11.9	8.18	4.49	7.31	14.3
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0065	0.0051	<0.0050	0.0053	0.0058
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	50.4	45.2	27.2	3.89	149
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV21-021-WILL	CFMP-SV21-021-SEDG	CFMP-SV21-021-TEA	CFMP-SV21-021-SOAP	CFMP-SV-022-WILL
				Client sampling date / time	11-Aug-2021 07:45	11-Aug-2021 07:45	11-Aug-2021 07:45	11-Aug-2021 07:45	10-Aug-2021 10:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-073	VA21B8309-074	VA21B8309-075	VA21B8309-076	VA21B8309-079
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0021
tin	7440-31-5	E440	0.10	mg/kg	0.11	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.32	0.36	1.38	0.79	5.13
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0032
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	0.14
zinc	7440-66-6	E440	0.50	mg/kg	27.2	29.3	39.7	9.41	154
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	<0.025 DLHM	<0.025 DLHM	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-022-HUCK	CFMP-SV-023-WILL	CFMP-SV-023-HUCK	CFMP-SV-024-WILL	CFMP-SV-024-SEDG
				Client sampling date / time	10-Aug-2021 10:00	13-Aug-2021 07:30	13-Aug-2021 07:30	13-Aug-2021 15:00	13-Aug-2021 15:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-080	VA21B8309-082	VA21B8309-083	VA21B8309-085	VA21B8309-086
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	87.3	62.8	89.6	66.0	62.5
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	51.6	13.0	29.8	12.6	5.1
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	22.2	68.2	10.8	10.1	51.3
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	13.1	6.0	9.1	17.0	5.4
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0174	2.60	<0.0050	0.305	0.0153
calcium	7440-70-2	E440	20	mg/kg	1470	15200	978	17100	6570
cesium	7440-46-2	E440	0.0050	mg/kg	0.0321	0.0183	0.0195	<0.0050	0.0063
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	<0.050	0.063	0.076
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.897	<0.020	0.384	0.071
copper	7440-50-8	E440	0.10	mg/kg	5.41	3.56	6.07	4.65	3.33
iron	7439-89-6	E440	3.0	mg/kg	32.3	37.9	13.5	52.1	40.9
lead	7439-92-1	E440	0.020	mg/kg	0.022	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	681	2740	628	4000	1160
manganese	7439-96-5	E440	0.050	mg/kg	316	366	158	38.3	431
mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0086	<0.0050	0.0096	0.0068
molybdenum	7439-98-7	E440	0.020	mg/kg	0.618	0.174	0.169	0.819	0.247
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	1.42	<0.20	1.96	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	1580	2580	1620	1930	1240
potassium	7440-09-7	E440	20	mg/kg	8920	11800	10400	17800	14800
rubidium	7440-17-7	E440	0.050	mg/kg	17.4	9.38	18.4	3.68	2.89
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0052	0.0101
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	3.30	119	3.30	72.8	40.8
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-022-HUCK	CFMP-SV-023-WILL	CFMP-SV-023-HUCK	CFMP-SV-024-WILL	CFMP-SV-024-SEDG
				Client sampling date / time	10-Aug-2021 10:00	13-Aug-2021 07:30	13-Aug-2021 07:30	13-Aug-2021 15:00	13-Aug-2021 15:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-080	VA21B8309-082	VA21B8309-083	VA21B8309-085	VA21B8309-086
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	0.11	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.51	0.37	<0.25	0.91	0.33
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	7.10	127	6.14	42.8	8.74
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025 DLHM	----	<0.025 DLHM	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-024-TEA	CFMP-SV-024-SOAP	CFMP-SV-025-WILL	CFMP-SV-025-SOAP	CFMP-SV-025-BLUE
				Client sampling date / time	13-Aug-2021 15:00	13-Aug-2021 15:00	13-Aug-2021 14:45	13-Aug-2021 14:45	13-Aug-2021 14:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-087	VA21B8309-088	VA21B8309-090	VA21B8309-091	VA21B8309-093
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	51.5	81.3	60.4	83.5	74.6
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	13.1	2.6	120	14.5	76.3
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0.087	<0.020	0.022
barium	7440-39-3	E440	0.050	mg/kg	72.6	0.790	26.6	1.57	12.5
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	14.4	11.6	17.8	10.6	9.1
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	0.0104	2.36	<0.0050	0.0078
calcium	7440-70-2	E440	20	mg/kg	6100	955	19000	655	1190
cesium	7440-46-2	E440	0.0050	mg/kg	0.0078	<0.0050	0.0123	<0.0050	0.0132
chromium	7440-47-3	E440	0.050	mg/kg	0.058	<0.050	0.233	<0.050	0.155
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0.460	0.033	0.025
copper	7440-50-8	E440	0.10	mg/kg	2.93	3.00	3.97	6.38	6.68
iron	7439-89-6	E440	3.0	mg/kg	42.7	23.8	207	37.9	54.0
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0.059	<0.020	0.035
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1480	548	2640	624	769
manganese	7439-96-5	E440	0.050	mg/kg	225	9.42	188	14.4	534
mercury	7439-97-6	E510	0.0050	mg/kg	0.0121	<0.0050	0.0082	<0.0050	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	0.285	1.42	0.468	1.92	0.411
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	2.56	2.99	6.27	0.34
phosphorus	7723-14-0	E440	10	mg/kg	1270	2170	2780	2070	1700
potassium	7440-09-7	E440	20	mg/kg	6440	10900	11500	13400	9050
rubidium	7440-17-7	E440	0.050	mg/kg	2.97	4.02	2.28	7.94	5.61
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0137	0.0100
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	50
strontium	7440-24-6	E440	0.050	mg/kg	23.4	2.93	139	4.55	3.44
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-024-TEA	CFMP-SV-024-SOAP	CFMP-SV-025-WILL	CFMP-SV-025-SOAP	CFMP-SV-025-BLUE
				Client sampling date / time	13-Aug-2021 15:00	13-Aug-2021 15:00	13-Aug-2021 14:45	13-Aug-2021 14:45	13-Aug-2021 14:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8309-087	VA21B8309-088	VA21B8309-090	VA21B8309-091	VA21B8309-093
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0.14	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.94	<0.25	5.66	0.82	2.08
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0.0049	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0.49	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	23.4	10.9	103	10.8	10.1
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025 DLHM	<0.025 DLHM	----	<0.025 DLHM	<0.025 DLHM
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	----	<0.0050	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	----	<0.0050	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	----	<0.0050	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	----	<0.0050	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	----	<0.0050	<0.0050

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

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA21B8309**	Page	: 1 of 58
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Nicole Bishop	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Blackwater Project	Date Samples Received	: 25-Aug-2021 10:25
PO	: ----	Issue Date	: 25-Nov-2021 12:02
C-O-C number	:		
Sampler	: JA		
Site	: ----		
Quote number	: VA21-ERMO100-002		
No. of samples received	: 93		
No. of samples analysed	: 93		

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 Services number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

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

- Reference Material (RM) Sample outliers occur - please see the following pages for full details.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	Anonymous	Anonymous	boron	7440-42-8	E472	64.9 % DUP-H	40%	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.*

Reference Material (RM) Sample								
Metals	QC-MRG8-322158003	----	silver	7440-22-4	E440.Ag	132 % MES	70.0-130%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA21B8309-005	CFMP-SV-003-Soil	arsenic	7440-38-2	E440	32.0 % DUP-H	30%	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: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-SV-003-HUCK	E511	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-017-WILL	E510	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-019-WILL	E510	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-020-WILL	E510	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-003-WILL	E510	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-023-WILL	E510	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-024-WILL	E510	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	67 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-025-WILL	E510	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-004-WILL	E510	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-005-WILL	E510	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-007-WILL	E510	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-008-WILL	E510	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-018-WILL	E510	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SOAP	E510	14-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-020-BLUE	E510	14-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-023-HUCK	E510	13-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	69 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SOAP	E510	13-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-025-BLUE	E510	13-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-025-SOAP	E510	13-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-WILL	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-SEDG	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-TEA	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-WILL	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-WILL	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-WILL	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-WILL	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-WILL	E510	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-005-SOAP	E510	12-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-007-HUCK	E510	12-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-008-HUCK	E510	12-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-011-WILL	E510	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-016-WILL	E510	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SOAP	E510	13-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-022-WILL	E510	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	365 days	70 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-HUCK	E510	11-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-SOAP	E510	11-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-SOAP	E510	11-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-BLUE	E510	11-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SOAP	E510	11-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SOAP	E510	11-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-011-BLUE	E510	10-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-011-SOAP	E510	10-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SOAP	E510	10-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	72 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-022-HUCK	E510	10-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-017-SEDGE	E510	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-017-TEA	E510	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SEDGE	E510	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-019-TEA	E510	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-003-SEDG	E510	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	76 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-003-TEA	E510	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	76 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-018-TEA	E510	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	76 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-020-SEDG	E510	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	76 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-004-SEDG	E510	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-004-TEA	E510	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-005-TEA	E510	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-007-TEA	E510	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-008-TEA	E510	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SEDGE	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SEDG	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-024-TEA	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-007-SEDGE	E510	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	78 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-008-SEDG	E510	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-TEA	E510	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-TEA	E510	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-TEA	E510	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-TEA	E510	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-SEDG	E510	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SEDG	E510	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SEDG	E510	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SEDG	E510	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	80 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-SV-003-HUCK	E472	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	730 days	103 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-WILL	E440	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-WILL	E440	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-WILL	E440	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-WILL	E440	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SOAP	E440	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-BLUE	E440	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-023-WILL	E440	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-WILL	E440	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-WILL	E440	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-WILL	E440	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-WILL	E440	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-WILL	E440	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-WILL	E440	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-WILL	E440	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-023-HUCK	E440	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SOAP	E440	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-BLUE	E440	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-SOAP	E440	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-SOAP	E440	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-HUCK	E440	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-HUCK	E440	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SOAP	E440	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-WILL	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-SEDG	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-TEA	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-WILL	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-WILL	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-WILL	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-WILL	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-WILL	E440	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-WILL	E440	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-WILL	E440	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-022-WILL	E440	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-HUCK	E440	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-SOAP	E440	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-SOAP	E440	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-BLUE	E440	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SOAP	E440	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SOAP	E440	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-BLUE	E440	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-SOAP	E440	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SOAP	E440	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-022-HUCK	E440	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-SEDGE	E440	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-TEA	E440	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SEDGE	E440	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-TEA	E440	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-SEDG	E440	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-TEA	E440	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-TEA	E440	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-SEDG	E440	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-SEDG	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-TEA	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-TEA	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-TEA	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-TEA	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SEDGE	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SEDG	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-TEA	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-SEDGE	E440	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-SEDG	E440	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-TEA	E440	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-TEA	E440	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-TEA	E440	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-TEA	E440	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-SEDG	E440	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SEDG	E440	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SEDG	E440	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SEDG	E440	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-SV-003-HUCK	E472.Ag	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	730 days	83 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-WILL	E440.Ag	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-WILL	E440.Ag	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-WILL	E440.Ag	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-WILL	E440.Ag	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SOAP	E440.Ag	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-BLUE	E440.Ag	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-023-WILL	E440.Ag	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-WILL	E440.Ag	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-WILL	E440.Ag	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-WILL	E440.Ag	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-WILL	E440.Ag	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-WILL	E440.Ag	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-WILL	E440.Ag	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-WILL	E440.Ag	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-023-HUCK	E440.Ag	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SOAP	E440.Ag	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-BLUE	E440.Ag	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-SOAP	E440.Ag	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-SOAP	E440.Ag	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-HUCK	E440.Ag	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-HUCK	E440.Ag	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SOAP	E440.Ag	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-WILL	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-SEDG	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-TEA	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-WILL	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-WILL	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-WILL	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-WILL	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-WILL	E440.Ag	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-WILL	E440.Ag	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-WILL	E440.Ag	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-022-WILL	E440.Ag	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-HUCK	E440.Ag	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-SOAP	E440.Ag	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-SOAP	E440.Ag	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-BLUE	E440.Ag	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SOAP	E440.Ag	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SOAP	E440.Ag	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-BLUE	E440.Ag	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-SOAP	E440.Ag	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SOAP	E440.Ag	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-022-HUCK	E440.Ag	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-SEDGE	E440.Ag	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-TEA	E440.Ag	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SEDGE	E440.Ag	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-TEA	E440.Ag	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-SEDG	E440.Ag	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-TEA	E440.Ag	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-TEA	E440.Ag	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-SEDG	E440.Ag	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-SEDG	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-TEA	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-TEA	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-TEA	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-TEA	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SEDGE	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SEDG	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-TEA	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-SEDGE	E440.Ag	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-SEDG	E440.Ag	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-TEA	E440.Ag	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-TEA	E440.Ag	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-TEA	E440.Ag	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-TEA	E440.Ag	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-SEDG	E440.Ag	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SEDG	E440.Ag	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SEDG	E440.Ag	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SEDG	E440.Ag	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-SV-003-HUCK	E472.Ti	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	730 days	83 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-WILL	E440.Ti	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-WILL	E440.Ti	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-WILL	E440.Ti	14-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	66 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-WILL	E440.Ti	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SOAP	E440.Ti	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-BLUE	E440.Ti	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-023-WILL	E440.Ti	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-WILL	E440.Ti	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-WILL	E440.Ti	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-WILL	E440.Ti	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-WILL	E440.Ti	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-WILL	E440.Ti	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-WILL	E440.Ti	12-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-WILL	E440.Ti	13-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-023-HUCK	E440.Ti	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SOAP	E440.Ti	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-BLUE	E440.Ti	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-025-SOAP	E440.Ti	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-SOAP	E440.Ti	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-HUCK	E440.Ti	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-HUCK	E440.Ti	12-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SOAP	E440.Ti	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-WILL	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-SEDG	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-TEA	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-WILL	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-WILL	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-WILL	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-WILL	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-WILL	E440.Ti	11-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	69 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-WILL	E440.Ti	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-WILL	E440.Ti	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-022-WILL	E440.Ti	10-Aug-2021	19-Oct-2021	----	----		19-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-010-HUCK	E440.Ti	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-012-SOAP	E440.Ti	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-SOAP	E440.Ti	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-BLUE	E440.Ti	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SOAP	E440.Ti	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SOAP	E440.Ti	11-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	70 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-BLUE	E440.Ti	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-011-SOAP	E440.Ti	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SOAP	E440.Ti	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-022-HUCK	E440.Ti	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-SEDGE	E440.Ti	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-017-TEA	E440.Ti	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-SEDGE	E440.Ti	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-019-TEA	E440.Ti	14-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-SEDG	E440.Ti	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-003-TEA	E440.Ti	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-TEA	E440.Ti	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-020-SEDG	E440.Ti	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-SEDG	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-004-TEA	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-005-TEA	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-TEA	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-TEA	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-018-SEDGE	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-SEDG	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-024-TEA	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-007-SEDGE	E440.Ti	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-008-SEDG	E440.Ti	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-TEA	E440.Ti	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-013-TEA	E440.Ti	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-TEA	E440.Ti	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-TEA	E440.Ti	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-009-SEDG	E440.Ti	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-015-SEDG	E440.Ti	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV21-021-SEDG	E440.Ti	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-016-SEDG	E440.Ti	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-SV-003-HUCK	E144-H	13-Aug-2021	----	----	----		26-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-003-SEDG	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-003-TEA	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-003-WILL	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-004-SEDG	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-004-TEA	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-004-WILL	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-005-SOAP	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-005-TEA	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-005-WILL	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-007-HUCK	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-007-SEDGE	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-007-TEA	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-007-WILL	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-008-HUCK	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-008-SEDG	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-008-TEA	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-008-WILL	E144	12-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-011-BLUE	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-011-SOAP	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-011-WILL	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-016-SEDG	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-016-SOAP	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-016-WILL	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times: Rec	Holding Times: Actual	Eval	Analysis: Analysis Date	Holding Times: Rec	Holding Times: Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-017-SEDGE	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-017-TEA	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-017-WILL	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-018-SEDGE	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-018-SOAP	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-018-TEA	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-018-WILL	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-019-SEDGE	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-019-SOAP	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times: Rec	Holding Times: Actual	Eval	Analysis: Analysis Date	Holding Times: Rec	Holding Times: Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-019-TEA	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-019-WILL	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-020-BLUE	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-020-SEDG	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-020-WILL	E144	14-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-022-HUCK	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-022-WILL	E144	10-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-023-HUCK	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-023-WILL	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times: Rec	Holding Times: Actual	Eval	Analysis: Analysis Date	Holding Times: Rec	Holding Times: Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-024-SEDG	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-024-SOAP	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-024-TEA	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-024-WILL	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-025-BLUE	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-025-SOAP	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-025-WILL	E144	13-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV21-009-SEDG	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV21-009-TEA	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-009-WILL	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-010-HUCK	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-010-SEDG	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-010-TEA	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-010-WILL	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-012-SOAP	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-012-WILL	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-013-SOAP	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-013-TEA	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-013-WILL	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-015-BLUE	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-015-SEDG	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-015-SOAP	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-015-TEA	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-015-WILL	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-021-SEDG	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-021-SOAP	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-021-TEA	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV21-021-WILL	E144	11-Aug-2021	----	----	----		27-Sep-2021	----	----	
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-017-TEA	E539	14-Aug-2021	06-Oct-2021	730 days	53 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-019-SOAP	E539	14-Aug-2021	06-Oct-2021	730 days	53 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-019-TEA	E539	14-Aug-2021	06-Oct-2021	730 days	53 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-020-BLUE	E539	14-Aug-2021	06-Oct-2021	730 days	53 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-003-TEA	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-018-SOAP	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-018-TEA	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-023-HUCK	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-024-SOAP	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-024-TEA	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-025-BLUE	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-025-SOAP	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-004-TEA	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-005-SOAP	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-005-TEA	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-007-HUCK	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-007-TEA	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	06-Oct-2021	730 days	0 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-008-HUCK	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-008-TEA	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-009-TEA	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-010-HUCK	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-010-TEA	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-012-SOAP	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-013-SOAP	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-013-TEA	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-015-BLUE	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times: Rec	Holding Times: Actual	Eval	Analysis: Analysis Date	Holding Times: Rec	Holding Times: Actual	Eval
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-015-SOAP	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-015-TEA	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-021-SOAP	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV21-021-TEA	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-011-BLUE	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-011-SOAP	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-016-SOAP	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	06-Oct-2021	730 days	0 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-022-HUCK	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	06-Oct-2021	730 days	0 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times: Rec	Holding Times: Actual	Eval	Analysis: Analysis Date	Holding Times: Rec	Holding Times: Actual	Eval

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-017-Soil	E510	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-019-Soil	E510	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-003-Soil	E510	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-020-Soil	E510	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-024-Soil	E510	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-025-Soil	E510	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-004-Soil	E510	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-005-Soil	E510	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-007-Soil	E510	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-018-Soil	E510	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-023-Soil	E510	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-008-Soil	E510	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV21-009-Soil	E510	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV21-010-Soil	E510	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV21-012-Soil	E510	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV21-013-Soil	E510	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV21-015-Soil	E510	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-011-Soil	E510	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-016-Soil U	E510	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-016-Soil W	E510	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-022-Soil	E510	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV21-021-Soil U	E510	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV21-021-Soil W	E510	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-017-Soil	E440	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-019-Soil	E440	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-003-Soil	E440	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-020-Soil	E440	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	20 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-024-Soil	E440	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-025-Soil	E440	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-004-Soil	E440	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-005-Soil	E440	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-007-Soil	E440	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-018-Soil	E440	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-023-Soil	E440	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-008-Soil	E440	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV21-009-Soil	E440	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV21-010-Soil	E440	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV21-012-Soil	E440	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV21-013-Soil	E440	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV21-015-Soil	E440	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-011-Soil	E440	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-016-Soil U	E440	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-016-Soil W	E440	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-022-Soil	E440	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV21-021-Soil U	E440	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV21-021-Soil W	E440	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-017-Soil	E108	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-019-Soil	E108	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-003-Soil	E108	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-020-Soil	E108	14-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-024-Soil	E108	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-025-Soil	E108	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-004-Soil	E108	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-005-Soil	E108	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-007-Soil	E108	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-018-Soil	E108	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-023-Soil	E108	13-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-008-Soil	E108	12-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV21-009-Soil	E108	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV21-010-Soil	E108	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV21-012-Soil	E108	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV21-013-Soil	E108	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV21-015-Soil	E108	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-011-Soil	E108	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-016-Soil U	E108	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-016-Soil W	E108	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-022-Soil	E108	10-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV21-021-Soil U	E108	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV21-021-Soil W	E108	11-Aug-2021	01-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓

Legend & Qualifier Definitions

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: **Biota**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	311277	2	34	5.8	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	329533	1	10	10.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	322158	7	90	7.7	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	329534	2	10	20.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	322159	7	90	7.7	5.0	✓
Moisture Content by Gravimetry	E144	303942	4	69	5.8	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	329537	1	10	10.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	329535	1	2	50.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	322164	7	90	7.7	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	329536	1	2	50.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	322165	7	90	7.7	5.0	✓
Laboratory Control Samples (LCS)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	311277	4	34	11.7	30.0	✗
Mercury in Biota by CVAAS (DRY units, Micro)	E511	329533	2	10	20.0	10.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	322158	14	90	15.5	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	329534	3	10	30.0	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	322159	14	90	15.5	10.0	✓
Moisture Content by Gravimetry	E144	303942	4	69	5.8	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	329537	1	10	10.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	329535	2	2	100.0	10.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	322164	14	90	15.5	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	329536	2	2	100.0	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	322165	14	90	15.5	10.0	✓
Method Blanks (MB)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	311277	2	34	5.8	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	329533	1	10	10.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	322158	7	90	7.7	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	329534	1	10	10.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	322159	7	90	7.7	5.0	✓
Moisture Content by Gravimetry	E144	303942	4	69	5.8	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	329537	1	10	10.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	329535	1	2	50.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	322164	7	90	7.7	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	329536	1	2	50.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	322165	7	90	7.7	5.0	✓
Matrix Spikes (MS)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	311277	2	34	5.8	5.0	✓

Matrix: **Soil/Solid**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Mercury in Soil/Solid by CVAAS	E510	280959	2	23	8.7	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	280960	2	23	8.7	5.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	280963	2	23	8.7	5.0	✓
Laboratory Control Samples (LCS)							
Mercury in Soil/Solid by CVAAS	E510	280959	4	23	17.3	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	280960	4	23	17.3	10.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	280963	2	23	8.7	5.0	✓
Method Blanks (MB)							
Mercury in Soil/Solid by CVAAS	E510	280959	2	23	8.7	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	280960	2	23	8.7	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
Moisture Content by Gravimetry	E144 Vancouver - Environmental	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Moisture Content by Gravimetry (Micro)	E144-H Vancouver - Environmental	Biota	Puget Sound Water Quality Authority/BC MOE Lab Manual	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472 Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Micro)	E511 Vancouver - Environmental	Biota	EPA 200.3/1631E (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539 Vancouver - Environmental	Biota	CFIA SOM-DAR-CHE-053-04, Oct 2012	Instrumental analysis of Speciated Arsenic (As) is by Anion Exchange HPLC-ICPMS. The results reported for arsenic species represent those forms available to analysis using the particular enzymatic digestion and chromatographic conditions of the method. Total arsenic content is best measured using a more rigourous acid/peroxide digestion. Species concentrations will almost always be lower than those measured using the 'total' digestion. The proportion of total arsenic represented in the species concentrations varies considerably with sample matrix characteristics: plant vs. animal, lipid content, etc.
pH by Meter (1:2 Soil:Water Extraction)	E108 Vancouver - Environmental	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally 20 ± 5°C), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at <60 ºC) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Metals in Soil/Solid by CRC ICPMS	E440 Vancouver - Environmental	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 HNO3 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. Elemental Sulfur may be poorly recovered by this method. Analysis is by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Soil/Solid by CVAAS	E510 Vancouver - Environmental	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO_3 and HCl, followed by CVAAS analysis.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion	EP440 Vancouver - Environmental	Biota	EPA 200.3	This method uses a heated strong acid digestion with HNO_3, HCl, and H_2O_2 and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Micro)	EP472 Vancouver - Environmental	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO_3, HCl, and H_2O_2 and is intended to provide a conservative estimate of bio-available metals.
Arsenic Species Extraction in Biota Preparation	EP539 Vancouver - Environmental	Biota	CFIA SOM-DAR-CHE-053-04, Oct 2012	Tissue Samples are homogenized and extracted using a methanol/enzymatic extraction procedure. Samples are extracted at 37 °C using Protease, Alpha amylase and Lipase in 25% methanol solution.
Leach 1:2 Soil:Water for pH/EC	EP108 Vancouver - Environmental	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury	EP440 Vancouver - Environmental	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO_3 and HCl. This method is intended to liberate metals that may be environmentally available.

QUALITY CONTROL REPORT

Work Order	: **VA21B8309**	Page	: 1 of 51
Client	: ERM Consultants Canada Ltd.	Laboratory	: Vancouver - Environmental
Contact	: Nicole Bishop	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Blackwater Project	Date Samples Received	: 25-Aug-2021 10:25
PO	: ----	Date Analysis Commenced	: 01-Sep-2021
C-O-C number	:	Issue Date	: 25-Nov-2021 12:02
Sampler	: JA		
Site	: ----		
Quote number	: VA21-ERMO100-002		
No. of samples received	: 93		
No. of samples analysed	: 93		

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 Percentage Difference (RPD) and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits
- Reference Material (RM) Report; Recovery and Acceptance Limits
- Method Blank (MB) Report; Recovery and Acceptance Limits
- Laboratory Control Sample (LCS) Report; Recovery and Acceptance Limits

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.

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia
Caleb Deroche	Lab Analyst	Metals, Burnaby, British Columbia
Dan Gebert	Laboratory Analyst	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Rebecca Sit	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Shaneel Dayal	Analyst	Metals, Burnaby, 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 Services number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percentage Difference
# = Indicates a QC result that did not meet the ALS DQO.

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: **Biota**

					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: 303942)											
VA21B8309-001	CFMP-SV-003-WILL	moisture	----	E144	0.50	%	67.7	67.8	0.109%	20%	----
Physical Tests (QC Lot: 303943)											
VA21B8309-026	CFMP-SV21-009-TEA	moisture	----	E144	0.50	%	53.4	52.3	2.08%	20%	----
Physical Tests (QC Lot: 303944)											
VA21B8309-052	CFMP-SV-016-SOAP	moisture	----	E144	0.50	%	77.7	77.7	0.0427%	20%	----
Physical Tests (QC Lot: 303945)											
VA21B8309-080	CFMP-SV-022-HUCK	moisture	----	E144	0.50	%	87.3	88.5	1.33%	20%	----
Physical Tests (QC Lot: 329537)											
VA21B7973-007	Anonymous	moisture	----	E144-H	2.0	%	81.9	80.8	1.37%	20%	----
Metals (QC Lot: 322158)											
FJ2100757-006	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	0.0112	0.0122	0.0010	Diff <2x LOR	----
Metals (QC Lot: 322159)											
FJ2100757-006	Anonymous	aluminum	7429-90-5	E440	2.0	mg/kg	451	529	16.0%	40%	----
		antimony	7440-36-0	E440	0.010	mg/kg	0.064	0.075	15.6%	40%	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.384	0.421	9.27%	40%	----
		barium	7440-39-3	E440	0.050	mg/kg	210	230	9.07%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	0.036	0.038	0.002	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	19.4	21.5	10.5%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.204	0.229	11.8%	40%	----
		calcium	7440-70-2	E440	20	mg/kg	17100	19400	12.2%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.112	0.127	12.2%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	1.24	1.31	5.13%	40%	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.479	0.550	13.7%	40%	----
		copper	7440-50-8	E440	0.10	mg/kg	4.97	5.52	10.5%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	1080	1240	13.9%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	0.659	0.757	13.8%	40%	----
		lithium	7439-93-2	E440	0.50	mg/kg	0.50	0.58	0.07	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	3540	4000	12.2%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	53.2	58.9	10.1%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	0.583	0.678	15.1%	40%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 322159) - continued											
FJ2100757-006	Anonymous	nickel	7440-02-0	E440	0.20	mg/kg	2.52	2.81	10.6%	40%	----
		phosphorus	7723-14-0	E440	10	mg/kg	4630	5260	12.9%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	28900	32200	10.8%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	2.86	3.10	8.00%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	0.465	0.528	12.7%	40%	----
		sodium	7440-23-5	E440	20	mg/kg	20	22	2	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	36.1	41.4	13.6%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	0.0109	0.0132	18.9%	40%	----
		tin	7440-31-5	E440	0.10	mg/kg	0.34	0.39	0.05	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	0.0483	0.0547	12.5%	40%	----
		vanadium	7440-62-2	E440	0.10	mg/kg	1.84	2.14	15.1%	40%	----
		zinc	7440-66-6	E440	0.50	mg/kg	24.2	27.2	11.8%	40%	----
		zirconium	7440-67-7	E440	0.40	mg/kg	<0.40	0.32	0.08	Diff <2x LOR	----
Metals (QC Lot: 322164)											
FJ2100757-006	Anonymous	silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0171	0.0193	0.0022	Diff <2x LOR	----
Metals (QC Lot: 322165)											
FJ2100757-006	Anonymous	titanium	7440-32-6	E440.Ti	0.25	mg/kg	3.85	4.36	12.4%	40%	----
Metals (QC Lot: 322176)											
VA21B8309-055	CFMP-SV-017-WILL	aluminum	7429-90-5	E440	2.0	mg/kg	34.6	34.5	0.418%	40%	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	41.6	39.9	4.04%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	3.6	3.4	0.2	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.801	0.784	2.18%	40%	----
		calcium	7440-70-2	E440	20	mg/kg	8540	8160	4.49%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0075	0.0078	0.0003	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.059	0.069	0.011	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.520	0.511	1.70%	40%	----
		copper	7440-50-8	E440	0.10	mg/kg	3.19	3.19	0.00350%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	67.5	70.6	4.42%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	0.022	0.020	0.001	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 322176) - continued											
VA21B8309-055	CFMP-SV-017-WILL	magnesium	7439-95-4	E440	2.0	mg/kg	1710	1650	3.24%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	267	266	0.331%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	0.292	0.289	1.01%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	0.94	0.97	0.03	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	2320	2220	4.18%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	16100	16000	0.735%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	4.25	4.27	0.424%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	68.5	66.4	3.08%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	0.0024	0.0025	0.00002	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	0.12	0.11	0.002	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	33.9	32.8	3.39%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 322177)											
VA21B8309-055	CFMP-SV-017-WILL	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 322178)											
VA21B8309-055	CFMP-SV-017-WILL	mercury	7439-97-6	E510	0.0050	mg/kg	0.0074	0.0082	0.0009	Diff <2x LOR	----
Metals (QC Lot: 322179)											
VA21B8309-055	CFMP-SV-017-WILL	titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.26	2.16	4.48%	40%	----
Metals (QC Lot: 323439)											
VA21B8309-038	CFMP-SV21-012-SOAP	aluminum	7429-90-5	E440	2.0	mg/kg	3.2	3.1	0.09	Diff <2x LOR	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	1.54	1.73	11.1%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	15.6	16.3	4.90%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0110	0.0098	0.0012	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	827	790	4.61%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 323439) - continued											
VA21B8309-038	CFMP-SV21-012-SOAP	cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	5.61	5.96	6.02%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	24.0	24.3	1.02%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	640	689	7.33%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	15.1	16.1	6.12%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	5.09	4.74	7.20%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	1.84	1.91	3.92%	40%	----
		phosphorus	7723-14-0	E440	10	mg/kg	1940	2020	3.82%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	12800	13200	3.39%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	8.65	8.84	2.25%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	4.54	4.60	1.36%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	8.34	8.84	5.88%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 323440)											
VA21B8309-038	CFMP-SV21-012-SOAP	silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0117	0.0126	0.0009	Diff <2x LOR	----
Metals (QC Lot: 323441)											
VA21B8309-038	CFMP-SV21-012-SOAP	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 323442)											
VA21B8309-038	CFMP-SV21-012-SOAP	titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 323551)											
VA21B8309-067	CFMP-SV-019-SOAP	aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	0.598	0.510	15.9%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 323551) - continued											
VA21B8309-067	CFMP-SV-019-SOAP	boron	7440-42-8	E440	1.0	mg/kg	13.6	12.1	11.9%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	733	705	3.90%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	3.90	2.92	28.8%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	23.2	18.6	22.1%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	545	492	10.2%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	10.4	9.54	8.24%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	1.28	1.00	24.3%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	2.46	2.06	17.9%	40%	----
		phosphorus	7723-14-0	E440	10	mg/kg	2060	1560	27.2%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	10800	11000	2.40%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	5.10	5.09	0.186%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	4.74	4.13	13.9%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	10.4	8.77	17.4%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 323552)											
VA21B8309-067	CFMP-SV-019-SOAP	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 323553)											
VA21B8309-067	CFMP-SV-019-SOAP	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 323554)											
VA21B8309-067	CFMP-SV-019-SOAP	titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 323559)											
VA21B8310-015	Anonymous	aluminum	7429-90-5	E440	2.0	mg/kg	2.5	2.5	0.06	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 323559) - continued											
VA21B8310-015	Anonymous	antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	1.44	1.35	6.39%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	13.2	13.2	0.206%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0060	<0.0050	0.0010	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	1120	1010	10.4%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0060	0.0059	0.00005	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.022	0.002	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	5.80	5.46	6.04%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	29.6	29.9	0.935%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	652	658	0.886%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	13.1	13.2	0.120%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	1.77	1.69	4.80%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	1.75	1.71	2.49%	40%	----
		phosphorus	7723-14-0	E440	10	mg/kg	2320	2340	0.826%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	10900	10800	1.32%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	9.45	9.14	3.31%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	7.15	6.38	11.3%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	0.30	0.23	0.08	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	13.5	13.2	2.15%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 323560)											
VA21B8310-015	Anonymous	silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0075	0.0058	0.0017	Diff <2x LOR	----
Metals (QC Lot: 323561)											

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 323561) - continued											
VA21B8310-015	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 323562)											
VA21B8310-015	Anonymous	titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 329533)											
VA21B7973-007	Anonymous	mercury	7439-97-6	E511	0.0050	mg/kg	0.0650	0.0738	12.8%	40%	----
Metals (QC Lot: 329534)											
VA21B7973-007	Anonymous	manganese	7439-96-5	E472	0.050	mg/kg	2830	2780	1.70%	40%	----
VA21B7973-007	Anonymous	aluminum	7429-90-5	E472	5.0	mg/kg	7280	7500	2.85%	40%	----
		antimony	7440-36-0	E472	0.010	mg/kg	0.252	0.273	8.19%	40%	----
		arsenic	7440-38-2	E472	0.030	mg/kg	23.8	24.9	4.59%	40%	----
		barium	7440-39-3	E472	0.050	mg/kg	515	555	7.43%	40%	----
		beryllium	7440-41-7	E472	0.010	mg/kg	0.308	0.333	7.96%	40%	----
		bismuth	7440-69-9	E472	0.010	mg/kg	0.062	0.068	9.31%	40%	----
		boron	7440-42-8	E472	1.0	mg/kg	127	64.8	64.9%	40%	DUP-H
		cadmium	7440-43-9	E472	0.010	mg/kg	0.453	0.469	3.44%	40%	----
		calcium	7440-70-2	E472	20	mg/kg	52800	55100	4.16%	60%	----
		cesium	7440-46-2	E472	0.0050	mg/kg	0.706	0.717	1.46%	40%	----
		chromium	7440-47-3	E472	0.20	mg/kg	22.6	22.4	0.874%	40%	----
		cobalt	7440-48-4	E472	0.020	mg/kg	7.94	8.04	1.22%	40%	----
		copper	7440-50-8	E472	0.20	mg/kg	36.1	38.8	7.30%	40%	----
		iron	7439-89-6	E472	5.0	mg/kg	24900	25900	4.11%	40%	----
		lead	7439-92-1	E472	0.050	mg/kg	6.70	7.32	8.84%	40%	----
		lithium	7439-93-2	E472	0.50	mg/kg	6.89	7.08	2.82%	40%	----
		magnesium	7439-95-4	E472	2.0	mg/kg	6160	6420	4.15%	40%	----
		molybdenum	7439-98-7	E472	0.040	mg/kg	0.734	0.797	8.20%	40%	----
		nickel	7440-02-0	E472	0.20	mg/kg	24.7	24.3	1.85%	40%	----
		phosphorus	7723-14-0	E472	10	mg/kg	2330	2550	8.81%	40%	----
		potassium	7440-09-7	E472	20	mg/kg	5510	5630	2.07%	40%	----
		rubidium	7440-17-7	E472	0.050	mg/kg	7.06	7.28	2.97%	40%	----
		selenium	7782-49-2	E472	0.10	mg/kg	4.26	4.42	3.52%	40%	----
		sodium	7440-23-5	E472	20	mg/kg	400	430	7.41%	40%	----
		strontium	7440-24-6	E472	0.10	mg/kg	140	142	1.76%	60%	----
		tellurium	13494-80-9	E472	0.020	mg/kg	0.058	0.056	0.002	Diff <2x LOR	----
		thallium	7440-28-0	E472	0.0020	mg/kg	0.0480	0.0478	0.526%	40%	----
		tin	7440-31-5	E472	0.10	mg/kg	0.24	0.23	0.009	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 329534) - continued											
VA21B7973-007	Anonymous	uranium	7440-61-1	E472	0.0020	mg/kg	0.250	0.258	3.25%	40%	----
		vanadium	7440-62-2	E472	0.10	mg/kg	30.9	31.8	2.90%	40%	----
		zinc	7440-66-6	E472	1.0	mg/kg	81.4	86.2	5.73%	40%	----
		zirconium	7440-67-7	E472	0.20	mg/kg	6.45	6.37	1.22%	40%	----
Metals (QC Lot: 329535)											
VA21B8310-025	Anonymous	silver	7440-22-4	E472.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 329536)											
VA21B8310-025	Anonymous	titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
Metals (QC Lot: 329560)											
VA21B8309-002	CFMP-SV-003-SEDG	aluminum	7429-90-5	E440	2.0	mg/kg	3.9	3.4	0.5	Diff <2x LOR	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.023	0.022	0.002	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	67.2	62.4	7.37%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	3.6	3.4	0.3	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	5950	5460	8.59%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0796	0.0773	2.99%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.154	0.131	0.022	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.043	0.040	0.003	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	2.65	2.49	6.22%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	44.9	43.8	2.39%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	0.022	<0.020	0.002	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	1500	1430	4.68%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	332	312	6.32%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	0.278	0.262	5.97%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	1200	1140	4.96%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	11800	11100	6.50%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	8.19	7.69	6.30%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	158	155	1.62%	40%	----
		strontium	7440-24-6	E440	0.050	mg/kg	51.2	48.1	6.15%	60%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 329560) - continued											
VA21B8309-002	CFMP-SV-003-SEDG	tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	0.0057	0.0054	0.0003	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	12.2	11.5	6.36%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 329561)											
VA21B8309-002	CFMP-SV-003-SEDG	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0055	0.0005	Diff <2x LOR	----
Metals (QC Lot: 329562)											
VA21B8309-002	CFMP-SV-003-SEDG	titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 329563)											
VA21B8309-002	CFMP-SV-003-SEDG	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 331677)											
VA21B8309-070	CFMP-SV-020-SEDG	aluminum	7429-90-5	E440	2.0	mg/kg	6.3	5.7	0.6	Diff <2x LOR	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.046	0.046	0.0003	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	32.1	32.1	0.163%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	8.4	8.3	1.14%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0070	0.0082	0.0013	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	4850	4780	1.39%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0921	0.0906	1.60%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.183	0.125	0.058	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.080	0.081	0.001	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	1.61	1.57	2.61%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	92.1	92.4	0.317%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	1860	1830	1.62%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	510	510	0.0656%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	3.80	3.73	1.78%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	1700	1680	1.62%	40%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 331677) - continued											
VA21B8309-070	CFMP-SV-020-SEDG	potassium	7440-09-7	E440	20	mg/kg	17000	17000	0.0882%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	8.10	8.06	0.390%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	29.8	30.0	0.748%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	0.0079	0.0079	0.00002	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	18.8	19.1	1.82%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 331678)											
VA21B8309-070	CFMP-SV-020-SEDG	mercury	7439-97-6	E510	0.0050	mg/kg	0.0072	0.0068	0.0004	Diff <2x LOR	----
Metals (QC Lot: 331679)											
VA21B8309-070	CFMP-SV-020-SEDG	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 331680)											
VA21B8309-070	CFMP-SV-020-SEDG	titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.40	0.38	0.02	Diff <2x LOR	----
Speciated Metals (QC Lot: 311277)											
VA21B8309-003	CFMP-SV-003-TEA	arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	<0.025	0	Diff <2x LOR	----
		arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 311280)											
VA21B8309-057	CFMP-SV-017-TEA	arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	<0.025	0	Diff <2x LOR	----
		arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 280963)											
VA21B8309-005	CFMP-SV-003-Soil	pH (1:2 soil:water)	----	E108	0.10	pH units	4.10	4.07	0.7%	5%	----
Physical Tests (QC Lot: 280964)											
VA21B8309-084	CFMP-SV-023-Soil	pH (1:2 soil:water)	----	E108	0.10	pH units	5.24	5.16	1.5%	5%	----
Metals (QC Lot: 280959)											
VA21B8309-005	CFMP-SV-003-Soil	mercury	7439-97-6	E510	0.0050	mg/kg	0.0249	0.0328	27.2%	40%	----
Metals (QC Lot: 280960)											
VA21B8309-005	CFMP-SV-003-Soil	aluminum	7429-90-5	E440	50	mg/kg	5720	5410	5.53%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	0.26	0.43	0.17	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	2.16	1.56	32.0%	30%	DUP-H
		barium	7440-39-3	E440	0.50	mg/kg	36.1	42.5	16.1%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.10	<0.10	0.004	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	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	0.121	0.157	25.7%	30%	----
		calcium	7440-70-2	E440	50	mg/kg	1410	1440	2.31%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	9.54	9.68	1.51%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	2.30	1.89	19.8%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	4.32	4.30	0.493%	30%	----
		iron	7439-89-6	E440	50	mg/kg	14500	13400	7.69%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	4.32	4.60	6.18%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	2.3	<2.0	0.3	Diff <2x LOR	----
		magnesium	7439-95-4	E440	20	mg/kg	1160	889	26.4%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	107	87.1	20.6%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	0.69	0.58	16.9%	40%	----
		nickel	7440-02-0	E440	0.50	mg/kg	3.18	3.06	0.12	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	50	mg/kg	313	294	18	Diff <2x LOR	----
		potassium	7440-09-7	E440	100	mg/kg	480	500	10	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	0.11	0.01	Diff <2x LOR	----
		sodium	7440-23-5	E440	50	mg/kg	116	96	20	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	15.0	15.8	4.94%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.070	0.069	0.0009	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	457	476	4.20%	40%	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 280960) - continued											
VA21B8309-005	CFMP-SV-003-Soil	tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.399	0.382	4.23%	30%	----
		vanadium	7440-62-2	E440	0.20	mg/kg	38.9	38.0	2.40%	30%	----
		zinc	7440-66-6	E440	2.0	mg/kg	21.8	21.7	0.554%	30%	----
		zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	1.1	0.1	Diff <2x LOR	----
Metals (QC Lot: 280961)											
VA21B8309-084	CFMP-SV-023-Soil	aluminum	7429-90-5	E440	50	mg/kg	15500	14400	7.12%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	0.53	0.52	0.01	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	4.95	4.79	3.18%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	78.0	88.9	13.1%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.26	0.27	0.01	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	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	0.087	0.125	0.038	Diff <2x LOR	----
		calcium	7440-70-2	E440	50	mg/kg	2120	2760	26.1%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	23.0	22.6	1.47%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	6.90	6.54	5.41%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	12.2	11.4	6.38%	30%	----
		iron	7439-89-6	E440	50	mg/kg	24500	23000	6.31%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	7.16	7.62	6.28%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	7.9	7.8	0.09	Diff <2x LOR	----
		magnesium	7439-95-4	E440	20	mg/kg	4420	3990	10.2%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	384	483	22.9%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	0.64	0.68	7.13%	40%	----
		nickel	7440-02-0	E440	0.50	mg/kg	10.8	10.3	5.42%	30%	----
		phosphorus	7723-14-0	E440	50	mg/kg	674	693	2.77%	30%	----
		potassium	7440-09-7	E440	100	mg/kg	640	680	7.09%	40%	----
		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	0.13	0.18	0.05	Diff <2x LOR	----
		sodium	7440-23-5	E440	50	mg/kg	72	74	3	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	15.6	20.6	27.4%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.065	0.071	0.006	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	807	818	1.28%	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: 280961) - continued											
VA21B8309-084	CFMP-SV-023-Soil	tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.314	0.294	0.021	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.20	mg/kg	60.3	58.4	3.21%	30%	----
		zinc	7440-66-6	E440	2.0	mg/kg	41.4	43.1	4.05%	30%	----
		zirconium	7440-67-7	E440	1.0	mg/kg	1.5	1.4	0.2	Diff <2x LOR	----
Metals (QC Lot: 280962)											
VA21B8309-084	CFMP-SV-023-Soil	mercury	7439-97-6	E510	0.0050	mg/kg	0.0426	0.0591	32.5%	40%	----

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: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 303942)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 303943)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 303944)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 303945)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 329537)						
moisture	----	E144-H	2	%	<2.0	----
Metals (QCLot: 322158)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 322159)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 322159) - continued						
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 322164)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 322165)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 322176)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 322176) - continued						
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 322177)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 322178)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 322179)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 323439)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 323439) - continued						
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 323440)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323441)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323442)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 323551)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 323551) - continued						
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 323552)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323553)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323554)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 323559)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 323559) - continued						
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 323560)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323561)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323562)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 329533)						
mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 329534)						
aluminum	7429-90-5	E472	5	mg/kg	<5.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 329534) - continued						
antimony	7440-36-0	E472	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	----
barium	7440-39-3	E472	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	----
boron	7440-42-8	E472	1	mg/kg	<1.0	----
cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	----
calcium	7440-70-2	E472	20	mg/kg	<20	----
cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E472	0.2	mg/kg	<0.20	----
cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	----
copper	7440-50-8	E472	0.2	mg/kg	<0.20	----
iron	7439-89-6	E472	5	mg/kg	<5.0	----
lead	7439-92-1	E472	0.05	mg/kg	<0.050	----
lithium	7439-93-2	E472	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E472	2	mg/kg	<2.0	----
manganese	7439-96-5	E472	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	----
nickel	7440-02-0	E472	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E472	10	mg/kg	<10	----
potassium	7440-09-7	E472	20	mg/kg	<20	----
rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E472	0.1	mg/kg	<0.10	----
sodium	7440-23-5	E472	20	mg/kg	<20	----
strontium	7440-24-6	E472	0.1	mg/kg	<0.10	----
tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E472	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E472	1	mg/kg	<1.0	----
zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	----
Metals (QCLot: 329535)						
silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 329536)						
titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 329560)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 329561)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 329562)						

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 329562) - continued						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 329563)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 331677)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 331677) - continued						
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 331678)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 331679)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 331680)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Speciated Metals (QCLot: 311277)						
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	<0.0050	----
Speciated Metals (QCLot: 311280)						
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	<0.0050	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 280959)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 280960)						
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	----
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
boron	7440-42-8	E440	5	mg/kg	<5.0	----
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
calcium	7440-70-2	E440	50	mg/kg	<50	----
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 280960) - continued						
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	----
lithium	7439-93-2	E440	2	mg/kg	<2.0	----
magnesium	7439-95-4	E440	20	mg/kg	<20	----
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	----
phosphorus	7723-14-0	E440	50	mg/kg	<50	----
potassium	7440-09-7	E440	100	mg/kg	<100	----
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
sodium	7440-23-5	E440	50	mg/kg	<50	----
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	----
titanium	7440-32-6	E440	1	mg/kg	<1.0	----
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
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	----
zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals (QCLot: 280961)						
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	----
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
boron	7440-42-8	E440	5	mg/kg	<5.0	----
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
calcium	7440-70-2	E440	50	mg/kg	<50	----
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 280961) - continued						
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	----
lithium	7439-93-2	E440	2	mg/kg	<2.0	----
magnesium	7439-95-4	E440	20	mg/kg	<20	----
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	----
phosphorus	7723-14-0	E440	50	mg/kg	<50	----
potassium	7440-09-7	E440	100	mg/kg	<100	----
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
sodium	7440-23-5	E440	50	mg/kg	<50	----
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	----
titanium	7440-32-6	E440	1	mg/kg	<1.0	----
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
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	----
zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals (QCLot: 280962)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----

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: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 303942)									
moisture	----	E144	0.5	%	50 %	101	90.0	110	----
Physical Tests (QCLot: 303943)									
moisture	----	E144	0.5	%	50 %	99.8	90.0	110	----
Physical Tests (QCLot: 303944)									
moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 303945)									
moisture	----	E144	0.5	%	50 %	101	90.0	110	----
Physical Tests (QCLot: 329537)									
moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Metals (QCLot: 322158)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	96.8	80.0	120	----
Metals (QCLot: 322159)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	112	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	107	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	108	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	105	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	101	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	92.6	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	104	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	108	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	103	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	109	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	104	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	107	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	104	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	103	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	108	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	108	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	105	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	117	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 322159) - continued									
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	111	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	105	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	110	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	103	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	107	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	103	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	108	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	105	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	104	80.0	120	----
Metals (QCLot: 322164)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	100	80.0	120	----
Metals (QCLot: 322165)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	107	80.0	120	----
Metals (QCLot: 322176)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	107	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	103	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	99.5	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	90.2	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	102	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	98.4	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	100	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	104	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	104	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	102	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	102	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 322176) - continued									
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	116	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	102	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	103	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	100	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	103	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	102	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	105	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	102	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 322177)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	97.5	80.0	120	----
Metals (QCLot: 322178)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	95.9	80.0	120	----
Metals (QCLot: 322179)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	102	80.0	120	----
Metals (QCLot: 323439)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	110	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	112	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	103	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	107	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	99.4	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	99.9	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	101	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	106	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	103	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	109	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	101	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	105	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	108	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 323439) - continued									
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	111	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	107	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	110	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	109	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	106	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	105	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	102	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	101	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	99.9	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	107	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	102	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	104	80.0	120	----
Metals (QCLot: 323440)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 323441)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.4	80.0	120	----
Metals (QCLot: 323442)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	109	80.0	120	----
Metals (QCLot: 323551)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	104	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	99.8	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	100	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	94.4	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	93.3	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	96.7	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	101	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	102	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	101	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	100	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	104	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 323551) - continued									
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	96.2	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	99.7	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	102	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	106	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	105	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	107	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	106	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	103	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	102	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	97.2	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	96.1	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	94.9	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	102	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	98.7	80.0	120	----
Metals (QCLot: 323552)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 323553)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	90.8	80.0	120	----
Metals (QCLot: 323554)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	102	80.0	120	----
Metals (QCLot: 323559)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	108	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	109	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	103	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	106	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	97.2	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	98.2	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	103	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	106	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 323559) - continued									
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	103	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	109	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	99.2	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	110	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	109	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	110	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	105	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	104	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	100.0	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	105	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	98.8	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	103	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	103	80.0	120	----
Metals (QCLot: 323560)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 323561)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.0	80.0	120	----
Metals (QCLot: 323562)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	103	80.0	120	----
Metals (QCLot: 329533)									
mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	98.3	80.0	120	----
Metals (QCLot: 329534)									
aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	108	80.0	120	----
antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	106	80.0	120	----
arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	106	80.0	120	----
barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	108	80.0	120	----
bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	99.3	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 329534) - continued									
boron	7440-42-8	E472	1	mg/kg	10 mg/kg	100	80.0	120	----
cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	102	80.0	120	----
calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	102	80.0	120	----
cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	104	80.0	120	----
chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	104	80.0	120	----
cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	99.8	80.0	120	----
iron	7439-89-6	E472	5	mg/kg	10 mg/kg	102	80.0	120	----
lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	103	80.0	120	----
lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	107	80.0	120	----
magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	102	80.0	120	----
manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	108	80.0	120	----
nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	100	80.0	120	----
phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	114	80.0	120	----
potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	106	80.0	120	----
rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	99.8	80.0	120	----
sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	104	80.0	120	----
strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	105	80.0	120	----
tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	102	80.0	120	----
thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	104	80.0	120	----
tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	106	80.0	120	----
uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	104	80.0	120	----
vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	107	80.0	120	----
zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	97.6	80.0	120	----
zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	107	80.0	120	----
Metals (QCLot: 329535)									
silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	95.6	80.0	120	----
Metals (QCLot: 329536)									
titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	107	80.0	120	----
Metals (QCLot: 329560)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	103	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	107	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	101	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	101	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 329560) - continued									
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	96.4	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	100	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	98.0	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	101	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	100	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	102	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	107	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	99.6	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	103	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	99.2	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	101	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	109	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	108	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	104	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	107	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	101	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	101	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	107	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	98.5	80.0	120	----
Metals (QCLot: 329561)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	100	80.0	120	----
Metals (QCLot: 329562)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	99.1	80.0	120	----
Metals (QCLot: 329563)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	90.2	80.0	120	----
Metals (QCLot: 331677)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	105	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 331677) - continued									
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	102	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	93.9	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	101	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	98.9	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	102	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	100	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	101	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	106	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	102	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	99.9	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	106	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	101	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	101	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	99.6	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	101	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	97.5	80.0	120	----
Metals (QCLot: 331678)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.8	80.0	120	----
Metals (QCLot: 331679)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	90.4	80.0	120	----
Metals (QCLot: 331680)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	105	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Speciated Metals (QCLot: 311277)									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	0.09375 mg/kg	80.4	80.0	120	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	0.09375 mg/kg	98.4	70.0	130	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	0.02343 mg/kg	94.6	80.0	120	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	0.02343 mg/kg	96.0	80.0	120	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	0.02343 mg/kg	94.6	80.0	120	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	0.02343 mg/kg	97.2	80.0	120	----
Speciated Metals (QCLot: 311280)									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	0.09375 mg/kg	91.7	80.0	120	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	0.09375 mg/kg	102	70.0	130	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	0.02343 mg/kg	98.7	80.0	120	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	0.02343 mg/kg	99.0	80.0	120	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	0.02343 mg/kg	100	80.0	120	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	0.02343 mg/kg	104	80.0	120	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Physical Tests (QCLot: 280963)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Physical Tests (QCLot: 280964)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Metals (QCLot: 280959)									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	98.6	80.0	120	----
Metals (QCLot: 280960)									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	108	80.0	120	----
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	110	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	107	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	100.0	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	103	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	99.2	80.0	120	----
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	101	80.0	120	----
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	103	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	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 280960) - continued									
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	100	80.0	120	----
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	108	80.0	120	----
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	104	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	101	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	106	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	109	80.0	120	----
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	102	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	117	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	104	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	105	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	107	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	104	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	102	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	104	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	95.8	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	105	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	103	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	104	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	103	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	105	80.0	120	----
Metals (QCLot: 280961)									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	93.8	80.0	120	----
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	97.0	80.0	120	----
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	95.4	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	94.4	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	90.7	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	90.4	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	92.9	80.0	120	----
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	91.7	80.0	120	----
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	95.3	80.0	120	----
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	91.0	80.0	120	----
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	92.7	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	90.8	80.0	120	----
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	93.6	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 280961) - continued									
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	92.0	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	89.7	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	93.3	80.0	120	----
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	90.1	80.0	120	----
molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	93.0	80.0	120	----
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	92.0	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	101	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	94.4	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	92.1	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	94.5	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	90.4	80.0	120	----
strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	92.9	80.0	120	----
sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	93.2	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	92.4	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	92.9	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	90.6	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	93.3	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	91.7	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	93.4	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	91.3	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	88.8	80.0	120	----
Metals (QCLot: 280962)									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	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.

Sub-Matrix: **Biota**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Speciated Metals (QCLot: 311277)										
VA21B8309-008	CFMP-SV-004-TEA	arsenate [As V]	17428-41-0	E539	0.083 mg/kg	0.09375 mg/kg	88.0	70.0	130	----
		arsenite [As III]	22541-54-4	E539	0.0704 mg/kg	0.09375 mg/kg	74.4	70.0	130	----
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0208 mg/kg	0.01875 mg/kg	110	70.0	130	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0178 mg/kg	0.01875 mg/kg	93.8	70.0	130	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0212 mg/kg	0.01875 mg/kg	112	70.0	130	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0221 mg/kg	0.01875 mg/kg	117	70.0	130	----
Speciated Metals (QCLot: 311280)										
VA21B8309-061	CFMP-SV-018-TEA	arsenate [As V]	17428-41-0	E539	0.085 mg/kg	0.09375 mg/kg	90.5	70.0	130	----
		arsenite [As III]	22541-54-4	E539	0.0704 mg/kg	0.09375 mg/kg	75.0	70.0	130	----
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0211 mg/kg	0.01875 mg/kg	112	70.0	130	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0173 mg/kg	0.01875 mg/kg	92.1	70.0	130	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0216 mg/kg	0.01875 mg/kg	115	70.0	130	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0222 mg/kg	0.01875 mg/kg	118	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: **Biota**

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 322158)									
QC-322158-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	90.8	70.0	130	----
Metals (QCLot: 322159)									
QC-322159-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	124	70.0	130	----
QC-322159-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	112	70.0	130	----
QC-322159-003	RM	barium	7440-39-3	E440	4.4 mg/kg	120	70.0	130	----
QC-322159-003	RM	boron	7440-42-8	E440	9.24 mg/kg	100	70.0	130	----
QC-322159-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	115	70.0	130	----
QC-322159-003	RM	calcium	7440-70-2	E440	2360 mg/kg	116	70.0	130	----
QC-322159-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	104	70.0	130	----
QC-322159-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	119	70.0	130	----
QC-322159-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	116	70.0	130	----
QC-322159-003	RM	copper	7440-50-8	E440	15.7 mg/kg	110	70.0	130	----
QC-322159-003	RM	iron	7439-89-6	E440	318 mg/kg	118	70.0	130	----
QC-322159-003	RM	lead	7439-92-1	E440	0.231 mg/kg	117	70.0	130	----
QC-322159-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	101	50.0	150	----
QC-322159-003	RM	magnesium	7439-95-4	E440	910 mg/kg	109	70.0	130	----
QC-322159-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	111	70.0	130	----
QC-322159-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	105	70.0	130	----
QC-322159-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	109	70.0	130	----
QC-322159-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	117	70.0	130	----
QC-322159-003	RM	potassium	7440-09-7	E440	12840 mg/kg	114	70.0	130	----
QC-322159-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	118	70.0	130	----
QC-322159-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	116	70.0	130	----
QC-322159-003	RM	sodium	7440-23-5	E440	14000 mg/kg	112	70.0	130	----
QC-322159-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	104	70.0	130	----
QC-322159-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	111	70.0	130	----
QC-322159-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	130	70.0	130	----
QC-322159-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	116	70.0	130	----
QC-322159-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	127	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%): RM	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 322164)									
QC-322164-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	# 132	70.0	130	MES
Metals (QCLot: 322165)									
QC-322165-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	118	70.0	130	----
Metals (QCLot: 322176)									
QC-322176-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	109	70.0	130	----
QC-322176-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	98.0	70.0	130	----
QC-322176-003	RM	barium	7440-39-3	E440	4.4 mg/kg	104	70.0	130	----
QC-322176-003	RM	boron	7440-42-8	E440	9.24 mg/kg	91.0	70.0	130	----
QC-322176-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	105	70.0	130	----
QC-322176-003	RM	calcium	7440-70-2	E440	2360 mg/kg	100	70.0	130	----
QC-322176-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	93.0	70.0	130	----
QC-322176-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	104	70.0	130	----
QC-322176-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	103	70.0	130	----
QC-322176-003	RM	copper	7440-50-8	E440	15.7 mg/kg	98.6	70.0	130	----
QC-322176-003	RM	iron	7439-89-6	E440	318 mg/kg	106	70.0	130	----
QC-322176-003	RM	lead	7439-92-1	E440	0.231 mg/kg	105	70.0	130	----
QC-322176-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	92.9	50.0	150	----
QC-322176-003	RM	magnesium	7439-95-4	E440	910 mg/kg	97.8	70.0	130	----
QC-322176-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	96.0	70.0	130	----
QC-322176-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	98.9	70.0	130	----
QC-322176-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	89.4	70.0	130	----
QC-322176-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	98.4	70.0	130	----
QC-322176-003	RM	potassium	7440-09-7	E440	12840 mg/kg	98.5	70.0	130	----
QC-322176-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	100	70.0	130	----
QC-322176-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	104	70.0	130	----
QC-322176-003	RM	sodium	7440-23-5	E440	14000 mg/kg	99.8	70.0	130	----
QC-322176-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	94.8	70.0	130	----
QC-322176-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	98.0	70.0	130	----
QC-322176-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	99.4	70.0	130	----
QC-322176-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	101	70.0	130	----
QC-322176-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	112	70.0	130	----
Metals (QCLot: 322177)									
QC-322177-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	107	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 322178)									
QC-322178-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	94.9	70.0	130	----
Metals (QCLot: 322179)									
QC-322179-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	96.8	70.0	130	----
Metals (QCLot: 323439)									
QC-323439-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	119	70.0	130	----
QC-323439-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	102	70.0	130	----
QC-323439-003	RM	barium	7440-39-3	E440	4.4 mg/kg	110	70.0	130	----
QC-323439-003	RM	boron	7440-42-8	E440	9.24 mg/kg	93.7	70.0	130	----
QC-323439-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	108	70.0	130	----
QC-323439-003	RM	calcium	7440-70-2	E440	2360 mg/kg	107	70.0	130	----
QC-323439-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	99.2	70.0	130	----
QC-323439-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	110	70.0	130	----
QC-323439-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	104	70.0	130	----
QC-323439-003	RM	copper	7440-50-8	E440	15.7 mg/kg	106	70.0	130	----
QC-323439-003	RM	iron	7439-89-6	E440	318 mg/kg	118	70.0	130	----
QC-323439-003	RM	lead	7439-92-1	E440	0.231 mg/kg	101	70.0	130	----
QC-323439-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	93.6	50.0	150	----
QC-323439-003	RM	magnesium	7439-95-4	E440	910 mg/kg	107	70.0	130	----
QC-323439-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	106	70.0	130	----
QC-323439-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	98.5	70.0	130	----
QC-323439-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	95.5	70.0	130	----
QC-323439-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	106	70.0	130	----
QC-323439-003	RM	potassium	7440-09-7	E440	12840 mg/kg	110	70.0	130	----
QC-323439-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	108	70.0	130	----
QC-323439-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	110	70.0	130	----
QC-323439-003	RM	sodium	7440-23-5	E440	14000 mg/kg	111	70.0	130	----
QC-323439-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	99.4	70.0	130	----
QC-323439-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	101	70.0	130	----
QC-323439-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	95.5	70.0	130	----
QC-323439-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	108	70.0	130	----
QC-323439-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	118	70.0	130	----
Metals (QCLot: 323440)									
QC-323440-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	112	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 323441)									
QC-323441-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	95.6	70.0	130	----
Metals (QCLot: 323442)									
QC-323442-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	110	70.0	130	----
Metals (QCLot: 323551)									
QC-323551-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	108	70.0	130	----
QC-323551-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	96.6	70.0	130	----
QC-323551-003	RM	barium	7440-39-3	E440	4.4 mg/kg	102	70.0	130	----
QC-323551-003	RM	boron	7440-42-8	E440	9.24 mg/kg	94.9	70.0	130	----
QC-323551-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	98.9	70.0	130	----
QC-323551-003	RM	calcium	7440-70-2	E440	2360 mg/kg	108	70.0	130	----
QC-323551-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	98.0	70.0	130	----
QC-323551-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	120	70.0	130	----
QC-323551-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	103	70.0	130	----
QC-323551-003	RM	copper	7440-50-8	E440	15.7 mg/kg	99.9	70.0	130	----
QC-323551-003	RM	iron	7439-89-6	E440	318 mg/kg	108	70.0	130	----
QC-323551-003	RM	lead	7439-92-1	E440	0.231 mg/kg	102	70.0	130	----
QC-323551-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	93.6	50.0	150	----
QC-323551-003	RM	magnesium	7439-95-4	E440	910 mg/kg	99.0	70.0	130	----
QC-323551-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	99.2	70.0	130	----
QC-323551-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	101	70.0	130	----
QC-323551-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	97.8	70.0	130	----
QC-323551-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	97.7	70.0	130	----
QC-323551-003	RM	potassium	7440-09-7	E440	12840 mg/kg	102	70.0	130	----
QC-323551-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	103	70.0	130	----
QC-323551-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	108	70.0	130	----
QC-323551-003	RM	sodium	7440-23-5	E440	14000 mg/kg	102	70.0	130	----
QC-323551-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	97.8	70.0	130	----
QC-323551-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	102	70.0	130	----
QC-323551-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	96.6	70.0	130	----
QC-323551-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	102	70.0	130	----
QC-323551-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	112	70.0	130	----
Metals (QCLot: 323552)									
QC-323552-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	111	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 323553)									
QC-323553-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	91.4	70.0	130	----
Metals (QCLot: 323554)									
QC-323554-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	107	70.0	130	----
Metals (QCLot: 323559)									
QC-323559-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	107	70.0	130	----
QC-323559-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	96.0	70.0	130	----
QC-323559-003	RM	barium	7440-39-3	E440	4.4 mg/kg	102	70.0	130	----
QC-323559-003	RM	boron	7440-42-8	E440	9.24 mg/kg	93.9	70.0	130	----
QC-323559-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	99.2	70.0	130	----
QC-323559-003	RM	calcium	7440-70-2	E440	2360 mg/kg	104	70.0	130	----
QC-323559-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	98.2	70.0	130	----
QC-323559-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	105	70.0	130	----
QC-323559-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	102	70.0	130	----
QC-323559-003	RM	copper	7440-50-8	E440	15.7 mg/kg	99.1	70.0	130	----
QC-323559-003	RM	iron	7439-89-6	E440	318 mg/kg	104	70.0	130	----
QC-323559-003	RM	lead	7439-92-1	E440	0.231 mg/kg	100	70.0	130	----
QC-323559-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	93.3	50.0	150	----
QC-323559-003	RM	magnesium	7439-95-4	E440	910 mg/kg	96.9	70.0	130	----
QC-323559-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	97.6	70.0	130	----
QC-323559-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	98.4	70.0	130	----
QC-323559-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	84.2	70.0	130	----
QC-323559-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	96.6	70.0	130	----
QC-323559-003	RM	potassium	7440-09-7	E440	12840 mg/kg	102	70.0	130	----
QC-323559-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	102	70.0	130	----
QC-323559-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	105	70.0	130	----
QC-323559-003	RM	sodium	7440-23-5	E440	14000 mg/kg	101	70.0	130	----
QC-323559-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	93.4	70.0	130	----
QC-323559-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	101	70.0	130	----
QC-323559-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	95.8	70.0	130	----
QC-323559-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	102	70.0	130	----
QC-323559-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	110	70.0	130	----
Metals (QCLot: 323560)									
QC-323560-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	109	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 323561)									
QC-323561-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	94.1	70.0	130	----
Metals (QCLot: 323562)									
QC-323562-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	98.9	70.0	130	----
Metals (QCLot: 329533)									
QC-329533-003	RM	mercury	7439-97-6	E511	0.322 mg/kg	110	70.0	130	----
Metals (QCLot: 329534)									
QC-329534-003	RM	aluminum	7429-90-5	E472	1280 mg/kg	125	70.0	130	----
QC-329534-003	RM	arsenic	7440-38-2	E472	6.87 mg/kg	108	70.0	130	----
QC-329534-003	RM	barium	7440-39-3	E472	4.4 mg/kg	118	70.0	130	----
QC-329534-003	RM	boron	7440-42-8	E472	9.24 mg/kg	99.1	70.0	130	----
QC-329534-003	RM	cadmium	7440-43-9	E472	0.299 mg/kg	108	70.0	130	----
QC-329534-003	RM	calcium	7440-70-2	E472	2360 mg/kg	106	70.0	130	----
QC-329534-003	RM	cesium	7440-46-2	E472	0.078 mg/kg	102	70.0	130	----
QC-329534-003	RM	chromium	7440-47-3	E472	1.58 mg/kg	116	70.0	130	----
QC-329534-003	RM	cobalt	7440-48-4	E472	0.25 mg/kg	112	70.0	130	----
QC-329534-003	RM	copper	7440-50-8	E472	15.7 mg/kg	104	70.0	130	----
QC-329534-003	RM	iron	7439-89-6	E472	318 mg/kg	111	70.0	130	----
QC-329534-003	RM	lead	7439-92-1	E472	0.231 mg/kg	116	70.0	130	----
QC-329534-003	RM	lithium	7439-93-2	E472	1.21 mg/kg	101	50.0	150	----
QC-329534-003	RM	magnesium	7439-95-4	E472	910 mg/kg	102	70.0	130	----
QC-329534-003	RM	manganese	7439-96-5	E472	3.17 mg/kg	108	70.0	130	----
QC-329534-003	RM	molybdenum	7439-98-7	E472	0.29 mg/kg	104	70.0	130	----
QC-329534-003	RM	nickel	7440-02-0	E472	1.34 mg/kg	109	70.0	130	----
QC-329534-003	RM	phosphorus	7723-14-0	E472	8000 mg/kg	111	70.0	130	----
QC-329534-003	RM	potassium	7440-09-7	E472	12840 mg/kg	110	70.0	130	----
QC-329534-003	RM	rubidium	7440-17-7	E472	5.59 mg/kg	110	70.0	130	----
QC-329534-003	RM	selenium	7782-49-2	E472	3.45 mg/kg	114	70.0	130	----
QC-329534-003	RM	sodium	7440-23-5	E472	14000 mg/kg	112	70.0	130	----
QC-329534-003	RM	strontium	7440-24-6	E472	10.1 mg/kg	98.3	70.0	130	----
QC-329534-003	RM	thallium	7440-28-0	E472	0.0093 mg/kg	112	70.0	130	----
QC-329534-003	RM	uranium	7440-61-1	E472	0.0481 mg/kg	100	70.0	130	----
QC-329534-003	RM	vanadium	7440-62-2	E472	1.48 mg/kg	113	70.0	130	----
QC-329534-003	RM	zinc	7440-66-6	E472	46.2 mg/kg	115	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 329535)									
QC-329535-003	RM	silver	7440-22-4	E472.Ag	0.0252 mg/kg	113	70.0	130	----
Metals (QCLot: 329536)									
QC-329536-003	RM	titanium	7440-32-6	E472.Ti	5.88 mg/kg	97.3	70.0	130	----
Metals (QCLot: 329560)									
QC-329560-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	103	70.0	130	----
QC-329560-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	94.2	70.0	130	----
QC-329560-003	RM	barium	7440-39-3	E440	4.4 mg/kg	106	70.0	130	----
QC-329560-003	RM	boron	7440-42-8	E440	9.24 mg/kg	86.1	70.0	130	----
QC-329560-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	97.5	70.0	130	----
QC-329560-003	RM	calcium	7440-70-2	E440	2360 mg/kg	105	70.0	130	----
QC-329560-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	90.4	70.0	130	----
QC-329560-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	105	70.0	130	----
QC-329560-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	97.5	70.0	130	----
QC-329560-003	RM	copper	7440-50-8	E440	15.7 mg/kg	96.3	70.0	130	----
QC-329560-003	RM	iron	7439-89-6	E440	318 mg/kg	108	70.0	130	----
QC-329560-003	RM	lead	7439-92-1	E440	0.231 mg/kg	97.3	70.0	130	----
QC-329560-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	83.7	50.0	150	----
QC-329560-003	RM	magnesium	7439-95-4	E440	910 mg/kg	94.5	70.0	130	----
QC-329560-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	95.3	70.0	130	----
QC-329560-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	94.3	70.0	130	----
QC-329560-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	96.3	70.0	130	----
QC-329560-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	98.3	70.0	130	----
QC-329560-003	RM	potassium	7440-09-7	E440	12840 mg/kg	93.7	70.0	130	----
QC-329560-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	103	70.0	130	----
QC-329560-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	99.8	70.0	130	----
QC-329560-003	RM	sodium	7440-23-5	E440	14000 mg/kg	97.7	70.0	130	----
QC-329560-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	96.2	70.0	130	----
QC-329560-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	83.6	70.0	130	----
QC-329560-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	96.6	70.0	130	----
QC-329560-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	97.8	70.0	130	----
QC-329560-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	116	70.0	130	----
Metals (QCLot: 329561)									
QC-329561-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	102	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 329562)									
QC-329562-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	91.3	70.0	130	----
Metals (QCLot: 329563)									
QC-329563-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	103	70.0	130	----
Metals (QCLot: 331677)									
QC-331677-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	101	70.0	130	----
QC-331677-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	95.3	70.0	130	----
QC-331677-003	RM	barium	7440-39-3	E440	4.4 mg/kg	98.0	70.0	130	----
QC-331677-003	RM	boron	7440-42-8	E440	9.24 mg/kg	84.9	70.0	130	----
QC-331677-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	96.8	70.0	130	----
QC-331677-003	RM	calcium	7440-70-2	E440	2360 mg/kg	97.7	70.0	130	----
QC-331677-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	84.7	70.0	130	----
QC-331677-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	106	70.0	130	----
QC-331677-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	96.7	70.0	130	----
QC-331677-003	RM	copper	7440-50-8	E440	15.7 mg/kg	95.7	70.0	130	----
QC-331677-003	RM	iron	7439-89-6	E440	318 mg/kg	99.6	70.0	130	----
QC-331677-003	RM	lead	7439-92-1	E440	0.231 mg/kg	92.1	70.0	130	----
QC-331677-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	84.9	50.0	150	----
QC-331677-003	RM	magnesium	7439-95-4	E440	910 mg/kg	93.0	70.0	130	----
QC-331677-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	95.4	70.0	130	----
QC-331677-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	89.8	70.0	130	----
QC-331677-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	102	70.0	130	----
QC-331677-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	89.1	70.0	130	----
QC-331677-003	RM	potassium	7440-09-7	E440	12840 mg/kg	94.2	70.0	130	----
QC-331677-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	98.7	70.0	130	----
QC-331677-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	97.9	70.0	130	----
QC-331677-003	RM	sodium	7440-23-5	E440	14000 mg/kg	98.4	70.0	130	----
QC-331677-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	86.8	70.0	130	----
QC-331677-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	92.0	70.0	130	----
QC-331677-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	87.8	70.0	130	----
QC-331677-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	95.2	70.0	130	----
QC-331677-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	107	70.0	130	----
Metals (QCLot: 331678)									
QC-331678-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	105	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 331679)									
QC-331679-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	98.0	70.0	130	----
Metals (QCLot: 331680)									
QC-331680-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	82.6	70.0	130	----
Speciated Metals (QCLot: 311277)									
QC-311277-005	NIST 1568b	arsenate [As V]	17428-41-0	E539	0.0282 mg/kg	112	70.0	130	----
QC-311277-005	NIST 1568b	arsenite [As III]	22541-54-4	E539	0.0575 mg/kg	96.6	70.0	130	----
QC-311277-005	NIST 1568b	dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.169 mg/kg	79.4	70.0	130	----
QC-311277-005	NIST 1568b	monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0109 mg/kg	86.7	70.0	130	----
Speciated Metals (QCLot: 311280)									
QC-311280-005	NIST 1568b	arsenate [As V]	17428-41-0	E539	0.0282 mg/kg	112	70.0	130	----
QC-311280-005	NIST 1568b	arsenite [As III]	22541-54-4	E539	0.0575 mg/kg	96.6	70.0	130	----
QC-311280-005	NIST 1568b	dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.169 mg/kg	79.4	70.0	130	----
QC-311280-005	NIST 1568b	monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0109 mg/kg	86.7	70.0	130	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 280959)									
QC-280959-003	SCP SS-2	mercury	7439-97-6	E510	0.059 mg/kg	94.8	70.0	130	----
Metals (QCLot: 280960)									
QC-280960-003	SCP SS-2	aluminum	7429-90-5	E440	9817 mg/kg	101	70.0	130	----
QC-280960-003	SCP SS-2	antimony	7440-36-0	E440	3.99 mg/kg	97.1	70.0	130	----
QC-280960-003	SCP SS-2	arsenic	7440-38-2	E440	3.73 mg/kg	103	70.0	130	----
QC-280960-003	SCP SS-2	barium	7440-39-3	E440	105 mg/kg	96.6	70.0	130	----
QC-280960-003	SCP SS-2	beryllium	7440-41-7	E440	0.349 mg/kg	92.3	70.0	130	----
QC-280960-003	SCP SS-2	boron	7440-42-8	E440	8.5 mg/kg	105	40.0	160	----
QC-280960-003	SCP SS-2	cadmium	7440-43-9	E440	0.91 mg/kg	89.1	70.0	130	----
QC-280960-003	SCP SS-2	calcium	7440-70-2	E440	31082 mg/kg	92.6	70.0	130	----
QC-280960-003	SCP SS-2	chromium	7440-47-3	E440	101 mg/kg	102	70.0	130	----
QC-280960-003	SCP SS-2	cobalt	7440-48-4	E440	6.9 mg/kg	98.0	70.0	130	----
QC-280960-003	SCP SS-2	copper	7440-50-8	E440	123 mg/kg	98.8	70.0	130	----
QC-280960-003	SCP SS-2	iron	7439-89-6	E440	23558 mg/kg	101	70.0	130	----
QC-280960-003	SCP SS-2	lead	7439-92-1	E440	267 mg/kg	95.7	70.0	130	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 280960) - continued									
QC-280960-003	SCP SS-2	lithium	7439-93-2	E440	9.5 mg/kg	95.3	70.0	130	----
QC-280960-003	SCP SS-2	magnesium	7439-95-4	E440	5509 mg/kg	98.2	70.0	130	----
QC-280960-003	SCP SS-2	manganese	7439-96-5	E440	269 mg/kg	101	70.0	130	----
QC-280960-003	SCP SS-2	molybdenum	7439-98-7	E440	1.03 mg/kg	100	70.0	130	----
QC-280960-003	SCP SS-2	nickel	7440-02-0	E440	26.7 mg/kg	101	70.0	130	----
QC-280960-003	SCP SS-2	phosphorus	7723-14-0	E440	752 mg/kg	112	70.0	130	----
QC-280960-003	SCP SS-2	potassium	7440-09-7	E440	1587 mg/kg	101	70.0	130	----
QC-280960-003	SCP SS-2	sodium	7440-23-5	E440	797 mg/kg	98.5	70.0	130	----
QC-280960-003	SCP SS-2	strontium	7440-24-6	E440	86.1 mg/kg	96.0	70.0	130	----
QC-280960-003	SCP SS-2	thallium	7440-28-0	E440	0.0786 mg/kg	92.4	40.0	160	----
QC-280960-003	SCP SS-2	tin	7440-31-5	E440	10.6 mg/kg	98.5	70.0	130	----
QC-280960-003	SCP SS-2	titanium	7440-32-6	E440	839 mg/kg	99.5	70.0	130	----
QC-280960-003	SCP SS-2	uranium	7440-61-1	E440	0.52 mg/kg	97.8	70.0	130	----
QC-280960-003	SCP SS-2	vanadium	7440-62-2	E440	32.7 mg/kg	99.2	70.0	130	----
QC-280960-003	SCP SS-2	zinc	7440-66-6	E440	297 mg/kg	98.2	70.0	130	----
QC-280960-003	SCP SS-2	zirconium	7440-67-7	E440	5.73 mg/kg	97.6	70.0	130	----
Metals (QCLot: 280961)									
QC-280961-003	SCP SS-2	aluminum	7429-90-5	E440	9817 mg/kg	105	70.0	130	----
QC-280961-003	SCP SS-2	antimony	7440-36-0	E440	3.99 mg/kg	103	70.0	130	----
QC-280961-003	SCP SS-2	arsenic	7440-38-2	E440	3.73 mg/kg	107	70.0	130	----
QC-280961-003	SCP SS-2	barium	7440-39-3	E440	105 mg/kg	100	70.0	130	----
QC-280961-003	SCP SS-2	beryllium	7440-41-7	E440	0.349 mg/kg	97.2	70.0	130	----
QC-280961-003	SCP SS-2	boron	7440-42-8	E440	8.5 mg/kg	109	40.0	160	----
QC-280961-003	SCP SS-2	cadmium	7440-43-9	E440	0.91 mg/kg	91.3	70.0	130	----
QC-280961-003	SCP SS-2	calcium	7440-70-2	E440	31082 mg/kg	97.0	70.0	130	----
QC-280961-003	SCP SS-2	chromium	7440-47-3	E440	101 mg/kg	107	70.0	130	----
QC-280961-003	SCP SS-2	cobalt	7440-48-4	E440	6.9 mg/kg	101	70.0	130	----
QC-280961-003	SCP SS-2	copper	7440-50-8	E440	123 mg/kg	102	70.0	130	----
QC-280961-003	SCP SS-2	iron	7439-89-6	E440	23558 mg/kg	102	70.0	130	----
QC-280961-003	SCP SS-2	lead	7439-92-1	E440	267 mg/kg	97.2	70.0	130	----
QC-280961-003	SCP SS-2	lithium	7439-93-2	E440	9.5 mg/kg	97.4	70.0	130	----
QC-280961-003	SCP SS-2	magnesium	7439-95-4	E440	5509 mg/kg	108	70.0	130	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%): RM	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 280961) - continued									
QC-280961-003	SCP SS-2	manganese	7439-96-5	E440	269 mg/kg	104	70.0	130	----
QC-280961-003	SCP SS-2	molybdenum	7439-98-7	E440	1.03 mg/kg	103	70.0	130	----
QC-280961-003	SCP SS-2	nickel	7440-02-0	E440	26.7 mg/kg	102	70.0	130	----
QC-280961-003	SCP SS-2	phosphorus	7723-14-0	E440	752 mg/kg	101	70.0	130	----
QC-280961-003	SCP SS-2	potassium	7440-09-7	E440	1587 mg/kg	112	70.0	130	----
QC-280961-003	SCP SS-2	sodium	7440-23-5	E440	797 mg/kg	101	70.0	130	----
QC-280961-003	SCP SS-2	strontium	7440-24-6	E440	86.1 mg/kg	102	70.0	130	----
QC-280961-003	SCP SS-2	thallium	7440-28-0	E440	0.0786 mg/kg	94.9	40.0	160	----
QC-280961-003	SCP SS-2	tin	7440-31-5	E440	10.6 mg/kg	93.5	70.0	130	----
QC-280961-003	SCP SS-2	titanium	7440-32-6	E440	839 mg/kg	110	70.0	130	----
QC-280961-003	SCP SS-2	uranium	7440-61-1	E440	0.52 mg/kg	101	70.0	130	----
QC-280961-003	SCP SS-2	vanadium	7440-62-2	E440	32.7 mg/kg	105	70.0	130	----
QC-280961-003	SCP SS-2	zinc	7440-66-6	E440	297 mg/kg	100	70.0	130	----
QC-280961-003	SCP SS-2	zirconium	7440-67-7	E440	5.73 mg/kg	95.8	70.0	130	----
Metals (QCLot: 280962)									
QC-280962-003	SCP SS-2	mercury	7439-97-6	E510	0.059 mg/kg	103	70.0	130	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

10 coolers

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002

ALS www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Environmental Division Vancouver
Work Order Reference
VA21B8309

Telephone : +1 604 253 4188

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax nicole.bishop@erm.com
Email 2 lshelley@entiaenviro.com
Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax
Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge mini
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge mini
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge mini
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mini
☐ Same day [E2] if received by 10am M-S - 200% rush surcharg
Additional fees may apply to rush requests on weeke
Date and Time Required for all E&P TATs:
For all tests with rush TATs requested, please

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer Sampler: J. ATKINS

Analysis Re

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
1	CPMP-SV-003 - WILL	13-AUG-21	12:15	VEG	1		✓			
2	" SEDG	↓	↓	VEG	1		✓			
3	" TEA			VEG	1		✓			
4	" HUCK			BERRY	1		✓			
5	" SOIL	↓	↓	SOIL	1	✓				
		13-AUG-21								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO
Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C
				15 [Avg of 10]

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: JG	Date: 25 Aug	Time: 10:25 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 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.

Samples in freezer until Aug 24

Chain of Custody (COC) / Analytical Request Form

10 coolers

COC Number: 21 - ERM0100-002.

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax nicole.bishop@erm.com

Email 2 lshelley@entiaenviro.com

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

~~☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CPMP-SV-004-WILL	12 AUG 21	16:00	VEG	1		✓			
	" SEDG	↓	↓	↓	1		✓			
	" TEA				1		✓			
	" SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C	
				15C	(AVG OF 10)

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: JG	Date: 25 Aug	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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Samples in freezer until Aug 24

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002

10 Coolers

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
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Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a
ALS Lab Work Order # (ALS use only):	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	nicole.bishop@erm.com
Email 2	lshelley@entiaenviro.com
Email 3	

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	
Email 2	

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Contact: Amber Springer Sampler: J. ATKINS

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-005-WILL	12AUG21	15:00	VEG	1		✓			
	" TEA	↓	↓	VEG	1		✓			
	" SDAP			BERRY	1		✓			
	" SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15			

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: JK	Date: 25 Aug	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALG 2020 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.

Samples in Freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

10 Coolers

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC Number: 21 - ERM0100 - 002

Page 4 of 38

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-007 - WILLOW	12-AUG-21	11:00am	VEG	1		✓			
	" SEDGE	↓	↓	↓	1		✓			
	" TEA				1		✓			
	" HUCK			BERRY	1		✓			
	" SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			15 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: JG	Date: 25 Aug	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 FRONT

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

Samples in Freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM 0100 -002

10 coolers

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. Atkins

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-008-WILL	12-AUG-21	8:15	VEG	1		✓			
	" " " SEDG	↓	↓	VEG	1		✓			
	" " " TEA			VEG	1		✓			
	" " " MUCK			BERRY	1		✓			
	" " " SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C			
			15°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: JGP	Date: 25 Aug	Time: 10:25AM

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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**.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002

10 coolers

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV21-009-WILL	11-AUG-21	14:00	VEG	1		✓			
	-SEDG	↓	↓	VEG	1		✓			
	-TEA			VEG	1		✓			
	-SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug	Time: 10:25 AM

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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.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	CFMP-SV21-010-WILL	11-AUG 21	18:15	VEG	1		✓			
	-SEDG	↓	↓	VEG	1		✓			
	-TEA			VEG	1		✓			
	-HUCK			BERRY	1		✓			
	-SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JY	Date: 25 Aug 21	Time: 10:25 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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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.

Samples in freezer until Aug 24

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002.

www.alsglobal.com

10 coolers

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	~~Company address below will appear on the final report~~
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
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Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
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Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-011-WILL	10-AUG-21	14:15	VEG	1		✓			
	" " " - BLUE	↓	↓	BERRY	1		✓			
	" " " - SOAP			BERRY	1		✓			
	" " " - SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			15 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: JG	Date: 10 Aug 21	Time: 10:20 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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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.

Samples in freezer until Aug 21

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COC Number: 21 - ERM0100-002

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Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
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Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV21-012-WILL	11-AUG-21	12:40	VEG	1	-	✓			
	" " " -SOAP	↓	↓	BERRY	1		✓			
	" " " -SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 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**.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002.

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	~~Company address below will appear on the final report~~
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CEMP-SV21-013-WILL	11 AUG 21	11:40	VEG	1		✓			
	" " " -SOAP	↓	↓	BERRY	1		✓			
	" " " -TEA			VEG	1		✓			
	" " " -SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JK	Date: 25 Aug	Time: 10:25 AM

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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.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002

www.alsglobal.com

10 Coolers

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a
ALS Lab Work Order # (ALS use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		
ALS Contact:	Amber Springer	Sampler:	J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	GFMP-SV21-015-SEDG	11-AUG-21	08:30	VEG	1		✓			
	CFMP-SV21-015-TEA	↓	↓	VEG	1		✓			
	" " " -BLUE			BERRY	1		✓			
	" " " -WILL			VEG	1		✓			
	" " " -SOAP			BERRY	1		✓			
	" " " -SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15C			

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: JG	Date: 25 Aug 21	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AJG 2020 FRONT

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

Samples in freezer until Aug 24

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002.

www.alsglobal.com

10 coolers.

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-016-WILL	10-Aug-21	9:30	VEG	1		✓			
	" " " -SEDG	↓	↓	VEG	1		✓			
	" " " -SOAP			BERRY	1		✓			
	" " " -SOILU			SOIL	1	✓				
	" " " -SOILW	↓	↓	SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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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**.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERMD100 - 002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax nicole.bishop@erm.com

Email 2 lshelley@entiaenviro.com

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

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☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

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Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Tl)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-017-WILL	14-AUG-21	10:00	VEG	1		✓			
	" -SEDGE	↓	↓	VEG	1		✓			
	" -TEA	↓	↓	VEG	1		✓			
	" -SOIL	↓	↓	SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug	Time: 10:25 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Samples in freezer until Aug 21

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COC Number: 21 - ERMO100-002

Canada Toll Free: 1 800 668 9878

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10 coolers

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Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
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City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

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Turnaround Time (TAT) Requested

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Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-018-WILL	13-Aug-21	1:30	VEG	1		✓			
	" SEDGE	↓	↓	VEG	1		✓			
	" TEA			VEG	1		✓			
	" SOAP			BERRY	1		✓			
	" SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C		
				15 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: JG	Date: 25 Aug	Time: 10:20 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS 2020 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.

Samples in freezer until Aug/21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERMO100-002

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 coolers

Report To	Contact and company name below will appear on the final report	Reports / Recipients		Turnaround Time (TAT) Requested	
Company:	ERM Consultants Canada	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply	AFFIX ALS BARCODE LABEL HERE (ALS use only)
Contact:	Nicole Bishop	Merge QC/QCI Reports with COA	☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum	
Phone:	604-319-9352	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum	
	Company address below will appear on the final report	Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum	
Street:	1111 West Hasting St., 15th Floor	Email 1 or Fax	nicole.bishop@erm.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum	
City/Province:	Vancouver, BC	Email 2	lshelley@entiaenviro.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.	
Postal Code:	V6E 2J3	Email 3		Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.	
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Recipients		Date and Time Required for all E&P TATs:	dd-mmm-yy hh:mm am/pm
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.	
Company:	ERM Consultants Canada	Email 1 or Fax			
Contact:	Nicole Bishop	Email 2			

Project Information		Oil and Gas Required Fields (client use)			
ALS Account # / Quote #:	VA-21-ERMO100-002	AFE/Cost Center:		PO#	n/a
Job #:	Blackwater Project	Major/Minor Code:		Routing Code:	n/a
PO / AFE:	n/a	Requisitioner:	n/a		
LSD:	n/a	Location:	n/a		
ALS Lab Work Order # (ALS use only):		ALS Contact:	Amber Springer	Sampler:	JATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-019-WILL	14-Aug-21	9:00	VEG	1		✓			
	" -SEDGE	↓	↓	VEG	1		✓			
	" -TEA			VEG	1		✓			
	" -SOAP			POOLLY	1		✓			
	" -SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (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? ☐ YES ☑ NO		Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Are samples for human consumption/ use? ☐ YES ☑ NO	Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)	Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
		Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A
		INITIAL COOLER TEMPERATURES °C / FINAL COOLER TEMPERATURES °C: 15 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: JG	Date: 25 Aug	Time: 10:20AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS 2020 FRONT

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

Samples in freezer until Aug 27

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM-0100-002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-020-WILL	14 AUG 21	06:30	VEG	1		✓			
	" -SEDG	↓	↓	VEG	1		✓			
	" -BLUE			BERRY	1		✓			
	" -SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JL	Date: 25 Aug 21	Time: 10:25AM

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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.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERMO100-002

www.alsglobal.com

10 coolers

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV21-021-WILL	~~[illegible]~~ 11/AUG/21	07:45	VEG	1		✓			
	" " " -SEDG	11/AUG-21	"	VEG	1		✓			
	" " " -TEA	"	"	VEG	1		✓			
	" " " -SOAP	"	"	BERRY	1		✓			
	" " " -SOILU	"	"	SOIL	1	✓				
	" " " -SOILW	"	"	SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			15 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: JR	Date: 25 Aug 21	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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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.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002.

www.alsglobal.com

10 coolers

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#: n/a
Major/Minor Code:	Routing Code: n/a
Requisitioner: n/a	
Location: n/a	

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CEMP-SV-022-WILL	10-AUG-21	10:00	VEG	1		✓			
	" " " -HUCK	↓	↓	BERRY	1		✓			
	" " " -SOIL	↓	↓	SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	15 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: JK	Date: 25 Aug 21	Time: 10:20AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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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**.

Samples in freezer until Aug 24

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERMO100-002

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: nicole.bishop@erm.com
Email 2: lshelley@entiaenviro.com
Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax:
Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	CAMP-SV-023-WILL	13 AUG 21	7:30	VEG	1		✓			
	" " -HUCK	↓	↓	BERRY	1		✓			
	" " -SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	15.4

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: JK	Date: 25 AUG 21	Time: 10:20 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION. WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 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.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - GEM 0100-002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA-21-ERMQ100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: JATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-024-WILL	13-AUG-21	15:00	VEG	1		✓			
	" STEM	13 AUG 21	↓	VEG	1		✓			
	" TEA	↓	↓	VEG	1		✓			
	" SOFP			BERRY	1		✓			
	" SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15°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: JKP	Date: 25 Aug 21	Time: 10:25 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

samples frozen until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM 0100 - 002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax nicole.bishop@erm.com

Email 2 lshelley@entiaenviro.com

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-025-WILL	13 AUG 21	12:45	VEG	1		✓			
	" SOAP	↓	↓	BERRY	1		✓			
	" SOIL	↓	↓	SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15			

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: JG	Date: 25 Aug	Time: 10:15AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 FRONT

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

Samples frozen until Aug 21

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **VA21B8310**	Page	: 1 of 45
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Nicole Bishop	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Blackwater Project	Date Samples Received	: 25-Aug-2021 10:25
PO	: ----	Date Analysis Commenced	: 01-Sep-2021
C-O-C number	: 21-ERM0100-002	Issue Date	: 25-Nov-2021 12:12
Sampler	: JA		
Site	: ----		
Quote number	: VA21-ERMO100-002		
No. of samples received	: 104		
No. of samples analysed	: 99		

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.

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia
Caleb Deroche	Lab Analyst	Metals, Burnaby, British Columbia
Dan Gebert	Laboratory Analyst	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Rebecca Sit	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Sristika Chand	Lab Analyst	Metals, Burnaby, 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).

Unit	*Description*
%	percent
mg/kg	milligrams per kilogram
pH units	pH units

<: 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

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

Analytical Results

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

				Client sample ID	CFMP-SV-027-Soil	CFMP-SV-028-Soil U	CFMP-SV-028-Soil W	CFMP-SV-029-Soil	CFMP-SV-030-Soil
				Client sampling date / time	14-Aug-2021 11:00	10-Aug-2021 09:00	10-Aug-2021 09:00	13-Aug-2021 08:45	13-Aug-2021 10:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-005	VA21B8310-010	VA21B8310-011	VA21B8310-016	VA21B8310-021
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	5.83	4.94	5.86	4.74	5.13
Metals									
aluminum	7429-90-5	E440	50	mg/kg	17100	13200	7490	8910	10100
antimony	7440-36-0	E440	0.10	mg/kg	0.28	0.30	0.43	0.19	0.15
arsenic	7440-38-2	E440	0.10	mg/kg	2.70	3.71	4.38	1.66	2.65
barium	7440-39-3	E440	0.50	mg/kg	85.1	60.6	45.1	73.6	69.7
beryllium	7440-41-7	E440	0.10	mg/kg	0.36	0.25	0.42	0.13	0.22
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.083	0.072	0.439	0.107	0.065
calcium	7440-70-2	E440	50	mg/kg	3300	2420	5700	5550	4150
chromium	7440-47-3	E440	0.50	mg/kg	22.2	13.4	8.55	15.4	12.8
cobalt	7440-48-4	E440	0.10	mg/kg	6.64	3.62	1.50	4.01	2.75
copper	7440-50-8	E440	0.50	mg/kg	5.39	5.34	10.1	6.04	5.27
iron	7439-89-6	E440	50	mg/kg	27200	17300	4940	18200	13500
lead	7439-92-1	E440	0.50	mg/kg	6.66	9.11	1.91	5.22	6.22
lithium	7439-93-2	E440	2.0	mg/kg	7.5	6.9	<2.0	4.4	4.4
magnesium	7439-95-4	E440	20	mg/kg	2680	1980	669	2280	1760
manganese	7439-96-5	E440	1.0	mg/kg	360	295	47.6	171	326
mercury	7439-97-6	E510	0.0050	mg/kg	0.0234	0.0250	0.0928	0.0450	0.0605
molybdenum	7439-98-7	E440	0.10	mg/kg	0.97	0.75	2.02	0.84	0.60
nickel	7440-02-0	E440	0.50	mg/kg	14.5	6.87	4.34	4.87	6.80
phosphorus	7723-14-0	E440	50	mg/kg	832	704	1200	419	1070
potassium	7440-09-7	E440	100	mg/kg	630	560	250	700	790
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0.57	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	<0.10	0.10	0.17	<0.10	<0.10
sodium	7440-23-5	E440	50	mg/kg	107	94	74	106	96
strontium	7440-24-6	E440	0.50	mg/kg	23.3	19.0	43.0	42.9	34.3
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	1400	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.076	0.087	0.063	<0.050	0.055

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-027-Soil	CFMP-SV-028-Soil U	CFMP-SV-028-Soil W	CFMP-SV-029-Soil	CFMP-SV-030-Soil
				Client sampling date / time	14-Aug-2021 11:00	10-Aug-2021 09:00	10-Aug-2021 09:00	13-Aug-2021 08:45	13-Aug-2021 10:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-005	VA21B8310-010	VA21B8310-011	VA21B8310-016	VA21B8310-021
					Result	Result	Result	Result	Result
Metals									
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
titanium	7440-32-6	E440	1.0	mg/kg	1260	1030	54.9	672	436
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.304	0.580	5.45	0.216	0.368
vanadium	7440-62-2	E440	0.20	mg/kg	71.6	45.6	10.7	54.4	35.8
zinc	7440-66-6	E440	2.0	mg/kg	80.9	48.1	10.5	33.7	42.6
zirconium	7440-67-7	E440	1.0	mg/kg	2.3	2.6	1.4	2.6	<1.0

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-031-Soil	CFMP-SV-032-Soil U	CFMP-SV-032-Soil W	CFMP-SV-033-Soil	CFMP-SV-034-Soil
				Client sampling date / time	13-Aug-2021 04:00	12-Aug-2021 08:20	12-Aug-2021 08:20	10-Aug-2021 15:30	10-Aug-2021 08:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-026	VA21B8310-031	VA21B8310-032	VA21B8310-037	VA21B8310-042
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	3.96	4.10	6.13	4.57	4.73
Metals									
aluminum	7429-90-5	E440	50	mg/kg	8080	8260	164	17600	19600
antimony	7440-36-0	E440	0.10	mg/kg	0.21	0.25	<0.10	0.41	0.42
arsenic	7440-38-2	E440	0.10	mg/kg	2.77	1.32	8.82	5.60	4.56
barium	7440-39-3	E440	0.50	mg/kg	35.5	71.6	275	69.0	73.3
beryllium	7440-41-7	E440	0.10	mg/kg	<0.10	0.19	<0.10	0.27	0.26
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.127	0.163	0.035	0.084	0.100
calcium	7440-70-2	E440	50	mg/kg	1110	2490	15700	1990	2840
chromium	7440-47-3	E440	0.50	mg/kg	7.06	8.52	<0.50	29.4	47.5
cobalt	7440-48-4	E440	0.10	mg/kg	1.34	2.40	4.13	6.59	8.14
copper	7440-50-8	E440	0.50	mg/kg	3.22	5.88	2.69	10.5	11.0
iron	7439-89-6	E440	50	mg/kg	11400	11800	51200	34900	32000
lead	7439-92-1	E440	0.50	mg/kg	13.3	8.75	0.62	7.61	8.26
lithium	7439-93-2	E440	2.0	mg/kg	2.7	2.1	<2.0	6.8	10.6
magnesium	7439-95-4	E440	20	mg/kg	726	1180	1350	2920	7550
manganese	7439-96-5	E440	1.0	mg/kg	142	131	4880	225	338
mercury	7439-97-6	E510	0.0050	mg/kg	0.0386	0.0783	0.0698	0.0545	0.0558
molybdenum	7439-98-7	E440	0.10	mg/kg	0.60	0.66	1.73	1.22	1.05
nickel	7440-02-0	E440	0.50	mg/kg	2.18	3.18	0.88	13.2	18.6
phosphorus	7723-14-0	E440	50	mg/kg	506	465	1110	794	486
potassium	7440-09-7	E440	100	mg/kg	460	470	890	580	560
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	0.32	0.16	<0.10	0.13	<0.10
sodium	7440-23-5	E440	50	mg/kg	57	94	116	100	89
strontium	7440-24-6	E440	0.50	mg/kg	12.0	24.1	67.7	20.8	19.1
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	1200	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.120	0.053	<0.050	0.081	0.059
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-031-Soil	CFMP-SV-032-Soil U	CFMP-SV-032-Soil W	CFMP-SV-033-Soil	CFMP-SV-034-Soil
				Client sampling date / time	13-Aug-2021 04:00	12-Aug-2021 08:20	12-Aug-2021 08:20	10-Aug-2021 15:30	10-Aug-2021 08:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-026	VA21B8310-031	VA21B8310-032	VA21B8310-037	VA21B8310-042
					Result	Result	Result	Result	Result
Metals									
titanium	7440-32-6	E440	1.0	mg/kg	360	1250	5.7	1890	2170
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.435	0.299	<0.050	0.338	0.286
vanadium	7440-62-2	E440	0.20	mg/kg	30.0	34.4	0.60	87.5	98.5
zinc	7440-66-6	E440	2.0	mg/kg	34.1	37.2	19.0	61.9	52.4
zirconium	7440-67-7	E440	1.0	mg/kg	1.5	1.9	<1.0	8.6	3.3

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-QAQC-2021-001-Soil	CFMP-QAQC-2021-002-Soil U	CFMP-QAQC-2021-002-Soil W	CFMP-QAQC-2021-003-Soil	CFMP-SV-002-Soil
				Client sampling date / time	10-Aug-2021 14:15	11-Aug-2021 08:50	11-Aug-2021 08:50	11-Aug-2021	12-Aug-2021 13:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-047	VA21B8310-052	VA21B8310-053	VA21B8310-055	VA21B8310-063
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	4.59	4.89	6.50	4.93	5.43
Metals									
aluminum	7429-90-5	E440	50	mg/kg	14900	9850	545	7770	20000
antimony	7440-36-0	E440	0.10	mg/kg	0.40	0.24	0.14	0.22	0.24
arsenic	7440-38-2	E440	0.10	mg/kg	4.88	1.87	0.99	2.20	2.99
barium	7440-39-3	E440	0.50	mg/kg	55.9	51.8	327	46.8	132
beryllium	7440-41-7	E440	0.10	mg/kg	0.23	0.21	<0.10	0.16	0.65
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.058	0.055	0.148	0.040	0.226
calcium	7440-70-2	E440	50	mg/kg	1650	1690	21800	2050	6920
chromium	7440-47-3	E440	0.50	mg/kg	22.0	11.3	1.25	11.6	14.4
cobalt	7440-48-4	E440	0.10	mg/kg	5.56	3.41	2.07	3.74	5.06
copper	7440-50-8	E440	0.50	mg/kg	8.38	3.64	2.52	3.74	10.9
iron	7439-89-6	E440	50	mg/kg	29900	17000	5960	15300	19500
lead	7439-92-1	E440	0.50	mg/kg	7.08	5.91	0.57	6.30	5.58
lithium	7439-93-2	E440	2.0	mg/kg	5.9	6.5	<2.0	4.7	7.5
magnesium	7439-95-4	E440	20	mg/kg	2480	1500	1930	2050	2370
manganese	7439-96-5	E440	1.0	mg/kg	204	220	6640	299	580
mercury	7439-97-6	E510	0.0050	mg/kg	0.0436	0.0268	0.0646	0.0186	0.0647
molybdenum	7439-98-7	E440	0.10	mg/kg	1.03	0.81	4.50	0.63	0.82
nickel	7440-02-0	E440	0.50	mg/kg	10.1	4.95	1.51	5.12	8.33
phosphorus	7723-14-0	E440	50	mg/kg	610	623	751	382	609
potassium	7440-09-7	E440	100	mg/kg	500	460	260	490	700
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0.33	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	0.13
sodium	7440-23-5	E440	50	mg/kg	92	70	59	89	110
strontium	7440-24-6	E440	0.50	mg/kg	15.2	13.3	133	17.2	61.6
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	1600	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.072	0.079	<0.050	0.066	0.092
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-QAQC-2021-001-Soil	CFMP-QAQC-2021-002-Soil U	CFMP-QAQC-2021-002-Soil W	CFMP-QAQC-2021-003-Soil	CFMP-SV-002-Soil
				Client sampling date / time	10-Aug-2021 14:15	11-Aug-2021 08:50	11-Aug-2021 08:50	11-Aug-2021	12-Aug-2021 13:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-047	VA21B8310-052	VA21B8310-053	VA21B8310-055	VA21B8310-063
					Result	Result	Result	Result	Result
Metals									
titanium	7440-32-6	E440	1.0	mg/kg	1670	506	16.4	611	434
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.286	0.305	0.057	0.486	1.56
vanadium	7440-62-2	E440	0.20	mg/kg	77.1	43.0	1.54	40.0	47.7
zinc	7440-66-6	E440	2.0	mg/kg	51.8	53.2	19.1	34.4	31.9
zirconium	7440-67-7	E440	1.0	mg/kg	7.6	2.5	<1.0	1.7	<1.0

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-035-Soil	CFMP-SV-036-Soil	CFMP-SV-037-Soil	CFMP-SV-038-Soil	CFMP-SV-039-Soil
				Client sampling date / time	16-Aug-2021 09:45	16-Aug-2021 10:15	16-Aug-2021 11:00	16-Aug-2021 11:30	16-Aug-2021 12:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-067	VA21B8310-071	VA21B8310-075	VA21B8310-079	VA21B8310-083
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	5.45	5.80	5.05	5.74	6.12
Metals									
aluminum	7429-90-5	E440	50	mg/kg	17900	18800	13600	16500	16600
antimony	7440-36-0	E440	0.10	mg/kg	0.34	0.27	0.29	0.26	0.26
arsenic	7440-38-2	E440	0.10	mg/kg	4.16	3.16	4.25	3.02	3.45
barium	7440-39-3	E440	0.50	mg/kg	178	308	74.3	231	169
beryllium	7440-41-7	E440	0.10	mg/kg	0.42	0.43	0.34	0.36	0.39
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
cadmium	7440-43-9	E440	0.020	mg/kg	0.073	0.205	0.065	0.125	0.112
calcium	7440-70-2	E440	50	mg/kg	2970	4980	2520	2670	3280
chromium	7440-47-3	E440	0.50	mg/kg	18.5	19.2	15.6	17.0	16.4
cobalt	7440-48-4	E440	0.10	mg/kg	7.06	7.65	6.56	7.01	7.20
copper	7440-50-8	E440	0.50	mg/kg	8.57	8.86	8.82	8.52	8.33
iron	7439-89-6	E440	50	mg/kg	24700	24700	21500	24000	24000
lead	7439-92-1	E440	0.50	mg/kg	4.95	5.13	4.10	4.53	4.53
lithium	7439-93-2	E440	2.0	mg/kg	8.2	7.5	7.1	7.8	7.9
magnesium	7439-95-4	E440	20	mg/kg	4520	4630	4350	4450	4600
manganese	7439-96-5	E440	1.0	mg/kg	1500	1960	488	1920	1620
mercury	7439-97-6	E510	0.0050	mg/kg	0.0225	0.0298	0.0124	0.0204	0.0210
molybdenum	7439-98-7	E440	0.10	mg/kg	0.52	0.52	0.54	0.58	0.53
nickel	7440-02-0	E440	0.50	mg/kg	17.4	17.8	13.7	15.6	15.4
phosphorus	7723-14-0	E440	50	mg/kg	548	1070	675	690	1200
potassium	7440-09-7	E440	100	mg/kg	660	860	570	620	700
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
sodium	7440-23-5	E440	50	mg/kg	117	100	126	85	104
strontium	7440-24-6	E440	0.50	mg/kg	23.9	42.0	16.4	15.8	19.5
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.099	0.083	0.064	0.088	0.078
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	CFMP-SV-035-Soil	CFMP-SV-036-Soil	CFMP-SV-037-Soil	CFMP-SV-038-Soil	CFMP-SV-039-Soil
				Client sampling date / time	16-Aug-2021 09:45	16-Aug-2021 10:15	16-Aug-2021 11:00	16-Aug-2021 11:30	16-Aug-2021 12:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-067	VA21B8310-071	VA21B8310-075	VA21B8310-079	VA21B8310-083
					Result	Result	Result	Result	Result
Metals									
titanium	7440-32-6	E440	1.0	mg/kg	810	718	832	666	763
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.357	0.253	0.316	0.253	0.254
vanadium	7440-62-2	E440	0.20	mg/kg	62.8	60.1	54.2	58.0	56.6
zinc	7440-66-6	E440	2.0	mg/kg	102	152	60.2	128	134
zirconium	7440-67-7	E440	1.0	mg/kg	1.1	<1.0	3.3	1.1	1.1

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

Analytical Results

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

				Client sample ID	M01 CFMP-SV-001-Soil	N006 CFMP-SV-006-Soil	N014 CFMP-SV-014-Soil	----	----
				Client sampling date / time	20-Aug-2021 07:30	20-Aug-2021 10:00	20-Aug-2021 12:30	----	----
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-088	VA21B8310-093	VA21B8310-099	--------	--------
					Result	Result	Result	----	----
Physical Tests									
pH (1:2 soil:water)	----	E108	0.10	pH units	5.00	4.95	5.08	----	----
Metals									
aluminum	7429-90-5	E440	50	mg/kg	16000	12300	43700	----	----
antimony	7440-36-0	E440	0.10	mg/kg	0.92	0.25	0.34	----	----
arsenic	7440-38-2	E440	0.10	mg/kg	22.2	35.0	7.22	----	----
barium	7440-39-3	E440	0.50	mg/kg	98.2	47.6	206	----	----
beryllium	7440-41-7	E440	0.10	mg/kg	0.45	0.38	1.13	----	----
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	----	----
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	----	----
cadmium	7440-43-9	E440	0.020	mg/kg	0.124	0.114	0.473	----	----
calcium	7440-70-2	E440	50	mg/kg	1060	2260	5800	----	----
chromium	7440-47-3	E440	0.50	mg/kg	14.9	17.0	46.6	----	----
cobalt	7440-48-4	E440	0.10	mg/kg	4.19	4.13	10.4	----	----
copper	7440-50-8	E440	0.50	mg/kg	11.9	7.22	35.5	----	----
iron	7439-89-6	E440	50	mg/kg	19300	16100	20900	----	----
lead	7439-92-1	E440	0.50	mg/kg	7.27	6.37	10.6	----	----
lithium	7439-93-2	E440	2.0	mg/kg	6.6	6.3	15.5	----	----
magnesium	7439-95-4	E440	20	mg/kg	2130	3490	4190	----	----
manganese	7439-96-5	E440	1.0	mg/kg	599	253	1660	----	----
mercury	7439-97-6	E510	0.0050	mg/kg	0.0451	0.0243	0.0948	----	----
molybdenum	7439-98-7	E440	0.10	mg/kg	0.78	1.44	1.08	----	----
nickel	7440-02-0	E440	0.50	mg/kg	5.86	6.88	25.2	----	----
phosphorus	7723-14-0	E440	50	mg/kg	946	600	989	----	----
potassium	7440-09-7	E440	100	mg/kg	700	650	1060	----	----
selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0.27	----	----
silver	7440-22-4	E440	0.10	mg/kg	<0.10	0.21	0.48	----	----
sodium	7440-23-5	E440	50	mg/kg	62	176	184	----	----
strontium	7440-24-6	E440	0.50	mg/kg	14.1	31.8	60.7	----	----
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	----	----
thallium	7440-28-0	E440	0.050	mg/kg	0.199	0.107	0.207	----	----

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	M01 CFMP-SV-001-Soil	N006 CFMP-SV-006-Soil	N014 CFMP-SV-014-Soil	----	----
				Client sampling date / time	20-Aug-2021 07:30	20-Aug-2021 10:00	20-Aug-2021 12:30	----	----
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-088	VA21B8310-093	VA21B8310-099	--------	--------
					Result	Result	Result	----	----
Metals									
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	----	----
titanium	7440-32-6	E440	1.0	mg/kg	46.8	828	468	----	----
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
uranium	7440-61-1	E440	0.050	mg/kg	0.662	1.28	6.37	----	----
vanadium	7440-62-2	E440	0.20	mg/kg	34.5	41.4	46.5	----	----
zinc	7440-66-6	E440	2.0	mg/kg	43.8	40.5	78.9	----	----
zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	1.2	<2.0 DLM	----	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-027-WILL	CFMP-SV-027-SEDG	CFMP-SV-027-TEA	CFMP-SV-027-SOAP	CFMP-SV-027-BLUE
				Client sampling date / time	14-Aug-2021 11:00	14-Aug-2021 11:00	14-Aug-2021 11:00	14-Aug-2021 11:00	14-Aug-2021 11:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-001	VA21B8310-002	VA21B8310-003	VA21B8310-004	VA21B8310-006
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	63.5	64.4	55.3	76.2	83.3
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	10.2	12.4	17.7	2.3	38.1
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	92.5	31.0	114	2.15	15.9
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	21.2	6.8	21.3	8.7	13.6
cadmium	7440-43-9	E440	0.0050	mg/kg	1.80	<0.0100 DLM	<0.0050	0.0094	0.0169
calcium	7440-70-2	E440	20	mg/kg	23700	6420	5950	573	1600
cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	0.286	0.0388	<0.0050	<0.0050
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	1.28	0.034	0.033	<0.020	<0.020
copper	7440-50-8	E440	0.10	mg/kg	3.78	0.94	3.36	3.70	5.64
iron	7439-89-6	E440	3.0	mg/kg	37.1	47.0	47.2	17.9	22.3
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	2530	2830	1740	484	674
manganese	7439-96-5	E440	0.050	mg/kg	57.4	552	674	14.6	254
mercury	7439-97-6	E510	0.0050	mg/kg	0.0096	0.0058	0.0109	<0.0050	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	0.142	11.1	0.468	1.80	0.352
nickel	7440-02-0	E440	0.20	mg/kg	1.72	<0.20	0.34	2.65	0.40
phosphorus	7723-14-0	E440	10	mg/kg	2770	1710	1690	1730	1770
potassium	7440-09-7	E440	20	mg/kg	9970	7060	6810	10700	9550
rubidium	7440-17-7	E440	0.050	mg/kg	3.18	7.08	6.47	12.4	7.40
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	0.091	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	216	42.5	30.0	4.36	7.64
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-027-WILL	CFMP-SV-027-SEDG	CFMP-SV-027-TEA	CFMP-SV-027-SOAP	CFMP-SV-027-BLUE
				Client sampling date / time	14-Aug-2021 11:00	14-Aug-2021 11:00	14-Aug-2021 11:00	14-Aug-2021 11:00	14-Aug-2021 11:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-001	VA21B8310-002	VA21B8310-003	VA21B8310-004	VA21B8310-006
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	0.0065	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	0.25	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.58	0.58	1.33	<0.25	0.30
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	90.9	14.0	30.0	7.69	8.13
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	<0.025	<0.025	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-028-WILL	CFMP-SV-028-SEDG	CFMP-SV-028-BLUE	CFMP-SV-029-WILL	CFMP-SV-029-SEDGE
				Client sampling date / time	10-Aug-2021 09:00	10-Aug-2021 09:00	10-Aug-2021 09:00	13-Aug-2021 08:45	13-Aug-2021 08:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-007	VA21B8310-008	VA21B8310-009	VA21B8310-012	VA21B8310-013
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	62.3	61.9	80.6	60.9	61.2
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	9.8	5.1	60.2	10.3	3.6
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	0.073	0.095	0.022	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	10.7	58.3	14.7	20.9	74.0
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	6.9	7.7	9.9	26.3	8.8
cadmium	7440-43-9	E440	0.0050	mg/kg	0.908	0.0244	0.0093	0.952	<0.0050
calcium	7440-70-2	E440	20	mg/kg	17100	7970	1340	20200	11000
cesium	7440-46-2	E440	0.0050	mg/kg	0.928	0.700	0.0145	0.0079	0.125
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0.109	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	1.19	0.060	<0.020	0.451	0.036
copper	7440-50-8	E440	0.10	mg/kg	6.01	4.33	5.55	3.61	1.87
iron	7439-89-6	E440	3.0	mg/kg	61.2	143	32.9	43.9	45.4
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0.024	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	7480	2630	691	2780	1130
manganese	7439-96-5	E440	0.050	mg/kg	222	425	338	115	988
mercury	7439-97-6	E510	0.0050	mg/kg	0.0067	0.0066	<0.0050	0.0106	0.0063
molybdenum	7439-98-7	E440	0.020	mg/kg	2.40	9.64	0.364	0.171	0.606
nickel	7440-02-0	E440	0.20	mg/kg	0.55	0.30	<0.20	<0.20	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	3150	1810	1580	2570	1510
potassium	7440-09-7	E440	20	mg/kg	4990	8880	8250	10200	10800
rubidium	7440-17-7	E440	0.050	mg/kg	11.9	14.8	8.80	3.10	3.57
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0.0072	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	41	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	85.5	53.4	4.84	116	65.0
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-028-WILL	CFMP-SV-028-SEDG	CFMP-SV-028-BLUE	CFMP-SV-029-WILL	CFMP-SV-029-SEDGE
				Client sampling date / time	10-Aug-2021 09:00	10-Aug-2021 09:00	10-Aug-2021 09:00	13-Aug-2021 08:45	13-Aug-2021 08:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-007	VA21B8310-008	VA21B8310-009	VA21B8310-012	VA21B8310-013
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	0.0412	0.0153	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	0.39	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.56	0.33	1.27	0.59	0.32
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	44.3	32.1	9.07	99.9	37.0
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	<0.025	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	----	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-029-TEA	CFMP-SV-029-SOAP	CFMP-SV-030-WILL	CFMP-SV-030-SEDG	CFMP-SV-030-TEA
				Client sampling date / time	13-Aug-2021 08:45	13-Aug-2021 08:45	13-Aug-2021 10:45	13-Aug-2021 10:45	13-Aug-2021 10:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-014	VA21B8310-015	VA21B8310-017	VA21B8310-018	VA21B8310-019
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	53.8	79.5	68.1	62.3	59.3
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	13.2	2.5	21.4	20.3	33.6
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0.066	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	63.1	1.44	21.8	23.8	91.7
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0.024	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	20.3	13.2	4.7	8.5	12.9
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0122	0.0060	0.0872	0.0072	<0.0050
calcium	7440-70-2	E440	20	mg/kg	4870	1120	13700	3630	4240
cesium	7440-46-2	E440	0.0050	mg/kg	0.0105	0.0060	0.0195	0.0080	0.0306
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0.075	0.060	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.020	<0.020	0.979	0.135	0.038
copper	7440-50-8	E440	0.10	mg/kg	3.41	5.80	4.44	4.03	3.95
iron	7439-89-6	E440	3.0	mg/kg	30.8	29.6	122	117	44.4
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1020	652	5340	730	1410
manganese	7439-96-5	E440	0.050	mg/kg	785	13.1	414	703	1400
mercury	7439-97-6	E510	0.0050	mg/kg	0.0108	<0.0050	0.0125	0.0058	0.0070
molybdenum	7439-98-7	E440	0.020	mg/kg	0.181	1.77	3.27	4.99	0.416
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	1.75	1.61	<0.20	0.35
phosphorus	7723-14-0	E440	10	mg/kg	1240	2320	4890	1290	1930
potassium	7440-09-7	E440	20	mg/kg	5590	10900	19700	18600	8110
rubidium	7440-17-7	E440	0.050	mg/kg	3.43	9.45	9.95	2.91	9.87
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	0.0075	<0.0050	0.0065	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	15.2	7.15	128	29.7	13.5
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-029-TEA	CFMP-SV-029-SOAP	CFMP-SV-030-WILL	CFMP-SV-030-SEDG	CFMP-SV-030-TEA
				Client sampling date / time	13-Aug-2021 08:45	13-Aug-2021 08:45	13-Aug-2021 10:45	13-Aug-2021 10:45	13-Aug-2021 10:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-014	VA21B8310-015	VA21B8310-017	VA21B8310-018	VA21B8310-019
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	0.0048	<0.0020	0.0048	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	0.30	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.64	<0.25	0.56	0.46	0.83
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	21.9	13.5	44.6	46.5	27.8
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	<0.025	----	----	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-030-SOAP	CFMP-SV-031-WILL	CFMP-SV-031-SEDG	CFMP-SV-031-TEA	CFMP-SV-031-HUCK
				Client sampling date / time	13-Aug-2021 10:45	13-Aug-2021 04:00	13-Aug-2021 04:00	13-Aug-2021 04:00	13-Aug-2021 04:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-020	VA21B8310-022	VA21B8310-023	VA21B8310-024	VA21B8310-025
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	72.3	65.3	62.6	51.8	----
moisture	----	E144-H	2.0	%	----	----	----	----	82.7
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	9.0	70.0	3.4	23.0	----
aluminum	7429-90-5	E472	5.0	mg/kg	----	----	----	----	44.0
antimony	7440-36-0	E472	0.010	mg/kg	----	----	----	----	<0.010
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	----
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	0.078	0.021	<0.020	----
arsenic	7440-38-2	E472	0.030	mg/kg	----	----	----	----	<0.030
barium	7440-39-3	E472	0.050	mg/kg	----	----	----	----	28.0
barium	7440-39-3	E440	0.050	mg/kg	4.14	58.8	61.2	70.1	----
beryllium	7440-41-7	E472	0.010	mg/kg	----	----	----	----	<0.010
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	0.050	<0.010	<0.010	----
bismuth	7440-69-9	E472	0.010	mg/kg	----	----	----	----	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	----
boron	7440-42-8	E472	1.0	mg/kg	----	----	----	----	8.1
boron	7440-42-8	E440	1.0	mg/kg	9.5	13.9	3.5	13.1	----
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0051	0.326	0.0163	<0.0050	----
cadmium	7440-43-9	E472	0.010	mg/kg	----	----	----	----	0.022
calcium	7440-70-2	E472	20	mg/kg	----	----	----	----	2080
calcium	7440-70-2	E440	20	mg/kg	761	14400	4020	4230	----
cesium	7440-46-2	E472	0.0050	mg/kg	----	----	----	----	0.132
cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	0.0594	0.148	0.0819	----
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	----
chromium	7440-47-3	E472	0.20	mg/kg	----	----	----	----	<0.20
cobalt	7440-48-4	E472	0.020	mg/kg	----	----	----	----	<0.020
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	4.50	<0.020	<0.020	----
copper	7440-50-8	E440	0.10	mg/kg	4.50	4.48	1.04	2.96	----
copper	7440-50-8	E472	0.20	mg/kg	----	----	----	----	6.36
iron	7439-89-6	E440	3.0	mg/kg	23.1	222	115	25.6	----
iron	7439-89-6	E472	5.0	mg/kg	----	----	----	----	21.4

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-030-SOAP	CFMP-SV-031-WILL	CFMP-SV-031-SEDG	CFMP-SV-031-TEA	CFMP-SV-031-HUCK
				Client sampling date / time	13-Aug-2021 10:45	13-Aug-2021 04:00	13-Aug-2021 04:00	13-Aug-2021 04:00	13-Aug-2021 04:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-020	VA21B8310-022	VA21B8310-023	VA21B8310-024	VA21B8310-025
					Result	Result	Result	Result	Result
Metals									
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----
lead	7439-92-1	E472	0.050	mg/kg	----	----	----	----	<0.050
lithium	7439-93-2	E472	0.50	mg/kg	----	----	----	----	<0.50
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----
magnesium	7439-95-4	E472	2.0	mg/kg	----	----	----	----	842
magnesium	7439-95-4	E440	2.0	mg/kg	657	4820	1250	1120	----
manganese	7439-96-5	E472	0.050	mg/kg	----	----	----	----	448
manganese	7439-96-5	E440	0.050	mg/kg	18.5	1640	199	1720	----
mercury	7439-97-6	E511	0.0050	mg/kg	----	----	----	----	<0.0050
mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0207	<0.0050	0.0131	----
molybdenum	7439-98-7	E440	0.020	mg/kg	1.35	1.79	1.99	0.494	----
molybdenum	7439-98-7	E472	0.040	mg/kg	----	----	----	----	0.256
nickel	7440-02-0	E472	0.20	mg/kg	----	----	----	----	0.52
nickel	7440-02-0	E440	0.20	mg/kg	2.30	1.96	<0.20	0.21	----
phosphorus	7723-14-0	E472	10	mg/kg	----	----	----	----	1870
phosphorus	7723-14-0	E440	10	mg/kg	2210	2550	768	1180	----
potassium	7440-09-7	E472	20	mg/kg	----	----	----	----	8550
potassium	7440-09-7	E440	20	mg/kg	10800	13200	6090	5970	----
rubidium	7440-17-7	E472	0.050	mg/kg	----	----	----	----	37.8
rubidium	7440-17-7	E440	0.050	mg/kg	9.24	21.3	4.43	12.7	----
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	----
selenium	7782-49-2	E472	0.10	mg/kg	----	----	----	----	<0.10
silver	7440-22-4	E472.Ag	0.0050	mg/kg	----	----	----	----	<0.0050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0078	0.0059	<0.0050	<0.0050	----
sodium	7440-23-5	E472	20	mg/kg	----	----	----	----	166
sodium	7440-23-5	E440	20	mg/kg	<20	<20	65	<20	----
strontium	7440-24-6	E440	0.050	mg/kg	7.27	138	33.9	12.3	----
strontium	7440-24-6	E472	0.10	mg/kg	----	----	----	----	5.67
tellurium	13494-80-9	E472	0.020	mg/kg	----	----	----	----	<0.020
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	----
thallium	7440-28-0	E472	0.0020	mg/kg	----	----	----	----	<0.0020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-030-SOAP	CFMP-SV-031-WILL	CFMP-SV-031-SEDG	CFMP-SV-031-TEA	CFMP-SV-031-HUCK
				Client sampling date / time	13-Aug-2021 10:45	13-Aug-2021 04:00	13-Aug-2021 04:00	13-Aug-2021 04:00	13-Aug-2021 04:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-020	VA21B8310-022	VA21B8310-023	VA21B8310-024	VA21B8310-025
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	0.0082	<0.0020	<0.0020	----
tin	7440-31-5	E472	0.10	mg/kg	----	----	----	----	4.11
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.27	0.43	<0.25	0.32	----
titanium	7440-32-6	E472.Ti	0.50	mg/kg	----	----	----	----	<0.50
uranium	7440-61-1	E472	0.0020	mg/kg	----	----	----	----	<0.0020
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	----
vanadium	7440-62-2	E472	0.10	mg/kg	----	----	----	----	<0.10
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----
zinc	7440-66-6	E440	0.50	mg/kg	9.03	190	29.6	20.4	----
zinc	7440-66-6	E472	1.0	mg/kg	----	----	----	----	11.5
zirconium	7440-67-7	E472	0.20	mg/kg	----	----	----	----	0.22
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	----
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----	----	<0.025	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-032-WILL	CFMP-SV-032-SEDGE	CFMP-SV-032-TEA	CFMP-SV-032-HUCK	CFMP-SV-033-WILL
				Client sampling date / time	12-Aug-2021 08:20	12-Aug-2021 08:20	12-Aug-2021 08:20	12-Aug-2021 08:20	10-Aug-2021 15:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-027	VA21B8310-028	VA21B8310-029	VA21B8310-030	VA21B8310-033
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	65.1	63.1	54.0	88.5	69.9
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	3.5	2.1	6.3	44.0	5.9
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	0.022	<0.020	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	28.9	78.1	46.3	17.2	7.43
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	3.0	2.0	10.6	7.3	9.3
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0169	<0.0050	<0.0050	<0.0050	0.0106
calcium	7440-70-2	E440	20	mg/kg	18400	7300	4490	1040	17600
cesium	7440-46-2	E440	0.0050	mg/kg	0.118	0.121	0.0475	0.0827	0.214
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.052	<0.050	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.222	0.058	<0.020	<0.020	0.368
copper	7440-50-8	E440	0.10	mg/kg	0.62	0.54	2.42	4.26	1.44
iron	7439-89-6	E440	3.0	mg/kg	63.8	69.8	26.1	14.8	92.6
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	5130	1670	1100	741	4540
manganese	7439-96-5	E440	0.050	mg/kg	226	536	692	263	338
mercury	7439-97-6	E510	0.0050	mg/kg	0.0097	0.0079	0.0099	<0.0056	0.0138
molybdenum	7439-98-7	E440	0.020	mg/kg	1.26	5.84	1.76	0.395	1.06
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	1860	1350	1220	1680	2850
potassium	7440-09-7	E440	20	mg/kg	11900	13800	5760	8010	15900
rubidium	7440-17-7	E440	0.050	mg/kg	13.5	13.6	10.3	19.5	22.8
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	62.8	26.5	8.65	2.07	60.6
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-032-WILL	CFMP-SV-032-SEDGE	CFMP-SV-032-TEA	CFMP-SV-032-HUCK	CFMP-SV-033-WILL
				Client sampling date / time	12-Aug-2021 08:20	12-Aug-2021 08:20	12-Aug-2021 08:20	12-Aug-2021 08:20	10-Aug-2021 15:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-027	VA21B8310-028	VA21B8310-029	VA21B8310-030	VA21B8310-033
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	0.25	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.34	<0.25	0.46	<0.25	0.50
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	82.0	39.4	23.2	8.05	62.4
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	<0.025	<0.025	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-033-SEDG	CFMP-SV-033-TEA	CFMP-SV-033-HUCK	CFMP-SV-034-WILL	CFMP-SV-034-SEDG
				Client sampling date / time	10-Aug-2021 15:30	10-Aug-2021 15:30	10-Aug-2021 15:30	10-Aug-2021 08:00	10-Aug-2021 08:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-034	VA21B8310-035	VA21B8310-036	VA21B8310-038	VA21B8310-039
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	65.2	56.4	89.4	74.0	68.6
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	2.1	7.6	36.1	6.1	<2.0
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	33.4	70.1	19.9	0.929	13.7
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	1.8	17.1	9.2	16.2	3.5
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0.0058	1.20	<0.0050
calcium	7440-70-2	E440	20	mg/kg	6230	5610	1350	17600	6760
cesium	7440-46-2	E440	0.0050	mg/kg	0.215	0.107	0.100	2.68	1.46
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	<0.050	0.056	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.188	<0.020	<0.020	0.296	<0.020
copper	7440-50-8	E440	0.10	mg/kg	1.04	3.32	6.54	5.52	0.45
iron	7439-89-6	E440	3.0	mg/kg	67.2	35.5	16.6	52.0	31.8
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1110	1150	720	4470	1140
manganese	7439-96-5	E440	0.050	mg/kg	478	898	261	86.1	93.3
mercury	7439-97-6	E510	0.0050	mg/kg	0.0106	0.0105	0.0054	0.0062	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	3.18	0.581	0.235	0.475	0.614
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0.50	0.82	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	1380	1440	2000	2040	2150
potassium	7440-09-7	E440	20	mg/kg	10500	6260	8180	14800	15200
rubidium	7440-17-7	E440	0.050	mg/kg	16.4	16.8	26.4	15.7	9.83
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	174	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	22.1	16.9	3.36	31.2	24.5
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-033-SEDG	CFMP-SV-033-TEA	CFMP-SV-033-HUCK	CFMP-SV-034-WILL	CFMP-SV-034-SEDG
				Client sampling date / time	10-Aug-2021 15:30	10-Aug-2021 15:30	10-Aug-2021 15:30	10-Aug-2021 08:00	10-Aug-2021 08:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-034	VA21B8310-035	VA21B8310-036	VA21B8310-038	VA21B8310-039
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	0.0028	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	0.31	<0.10	<0.10	<0.10	0.15
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	0.42	<0.25	0.59	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	22.1	26.3	9.28	25.1	43.0
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	<0.025	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-034-TEA	CFMP-SV-034-HUCK	CFMP-QAQC-2021-001-WILL	CFMP-QAQC-2021-001-SEDG	CFMP-QAQC-2021-001-TEA
				Client sampling date / time	10-Aug-2021 08:00	10-Aug-2021 08:00	10-Aug-2021 14:15	10-Aug-2021 14:15	10-Aug-2021 14:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-040	VA21B8310-041	VA21B8310-043	VA21B8310-044	VA21B8310-045
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	53.4	86.0	61.0	67.4	59.2
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	10.2	30.7	6.7	2.6	9.7
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	57.2	13.4	4.48	31.4	77.6
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	9.2	7.9	5.6	1.9	17.2
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	0.0084	0.0199	<0.0050	<0.0050
calcium	7440-70-2	E440	20	mg/kg	6610	1360	13000	5770	5930
cesium	7440-46-2	E440	0.0050	mg/kg	0.436	0.214	0.174	0.215	0.119
chromium	7440-47-3	E440	0.050	mg/kg	0.087	<0.050	<0.050	<0.050	0.560
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.029	0.526	0.107	0.023
copper	7440-50-8	E440	0.10	mg/kg	1.74	5.43	1.00	0.95	3.13
iron	7439-89-6	E440	3.0	mg/kg	25.1	15.9	102	64.9	50.2
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1220	791	3050	1040	1280
manganese	7439-96-5	E440	0.050	mg/kg	1020	213	499	392	1010
mercury	7439-97-6	E510	0.0050	mg/kg	0.0118	<0.0050	0.0101	0.0098	0.0135
molybdenum	7439-98-7	E440	0.020	mg/kg	0.082	0.097	1.11	2.98	0.578
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	0.65	<0.20	<0.20	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	1250	1910	2120	1540	1640
potassium	7440-09-7	E440	20	mg/kg	4940	7200	12600	11400	6610
rubidium	7440-17-7	E440	0.050	mg/kg	7.53	18.8	18.0	16.2	17.0
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	124	<20
strontium	7440-24-6	E440	0.050	mg/kg	32.6	3.59	45.6	21.6	18.2
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-034-TEA	CFMP-SV-034-HUCK	CFMP-QAQC-2021-001-WILL	CFMP-QAQC-2021-001-SEDG	CFMP-QAQC-2021-001-TEA
				Client sampling date / time	10-Aug-2021 08:00	10-Aug-2021 08:00	10-Aug-2021 14:15	10-Aug-2021 14:15	10-Aug-2021 14:15
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-040	VA21B8310-041	VA21B8310-043	VA21B8310-044	VA21B8310-045
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.48	<0.25	0.59	<0.25	0.62
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	28.1	10.4	76.1	24.0	28.6
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	<0.025	----	----	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	----	----	<0.0050

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-QAQC-2021-001-HUCK	CFMP-QAQC-2021-002-WILL	CFMP-QAQC-2021-002-TEA	CFMP-QAQC-2021-002-SEGDE	CFMP-QAQC-2021-002-SOAP
				Client sampling date / time	10-Aug-2021 14:15	11-Aug-2021 08:50	11-Aug-2021 08:50	11-Aug-2021 08:50	11-Aug-2021 08:50
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-046	VA21B8310-048	VA21B8310-049	VA21B8310-050	VA21B8310-051
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	88.0	66.6	55.8	61.2	77.0
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	36.7	21.0	21.6	5.7	10.3
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	19.8	5.86	70.4	52.2	1.84
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	9.1	20.3	23.4	5.8	11.4
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0057	0.0559	<0.0050	0.0267	0.0053
calcium	7440-70-2	E440	20	mg/kg	1290	15000	5940	6500	821
cesium	7440-46-2	E440	0.0050	mg/kg	0.0990	0.0197	0.0103	0.0491	<0.0050
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.065	<0.050	0.072	0.224
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.188	<0.020	<0.020	0.023
copper	7440-50-8	E440	0.10	mg/kg	6.19	3.06	2.82	4.68	5.88
iron	7439-89-6	E440	3.0	mg/kg	15.4	83.2	49.5	52.9	33.0
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	715	4340	1370	1410	608
manganese	7439-96-5	E440	0.050	mg/kg	247	192	627	426	11.3
mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0092	0.0133	0.0069	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	0.205	0.473	0.302	0.778	2.38
nickel	7440-02-0	E440	0.20	mg/kg	0.43	<0.20	<0.20	<0.20	2.39
phosphorus	7723-14-0	E440	10	mg/kg	1930	1520	1260	1690	2150
potassium	7440-09-7	E440	20	mg/kg	8310	19600	6340	17900	9760
rubidium	7440-17-7	E440	0.050	mg/kg	26.7	10.6	4.31	9.45	7.05
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0076	0.0058
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	3.66	64.1	31.0	40.7	5.02
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-QAQC-2021-001-HUCK	CFMP-QAQC-2021-002-WILL	CFMP-QAQC-2021-002-TEA	CFMP-QAQC-2021-002-SEGDE	CFMP-QAQC-2021-002-SOAP
				Client sampling date / time	10-Aug-2021 14:15	11-Aug-2021 08:50	11-Aug-2021 08:50	11-Aug-2021 08:50	11-Aug-2021 08:50
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-046	VA21B8310-048	VA21B8310-049	VA21B8310-050	VA21B8310-051
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	1.92	1.83	0.46	0.62
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	8.72	29.4	38.8	26.1	10.9
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----	<0.025	----	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	----	<0.0050	----	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-QAQC-2021-003-WILL	CFMP-QAQC-2021-003-SOAP	CFMP-QAQC-2021-003-TEA	CFMP-SV-002-WILL	CFMP-SV-002-SEDG
				Client sampling date / time	11-Aug-2021	11-Aug-2021	11-Aug-2021	12-Aug-2021 13:45	12-Aug-2021 13:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-054	VA21B8310-056	VA21B8310-057	VA21B8310-058	VA21B8310-059
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	67.6	81.2	81.5	64.4	67.4
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	12.6	3.1	32.9	19.5	7.1
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	0.049	<0.020
barium	7440-39-3	E440	0.050	mg/kg	14.1	2.13	55.6	19.4	70.5
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	21.6	10.9	13.7	23.1	9.4
cadmium	7440-43-9	E440	0.0050	mg/kg	0.563	0.0059	<0.0050	0.699	0.0060
calcium	7440-70-2	E440	20	mg/kg	16200	841	4040	13700	6160
cesium	7440-46-2	E440	0.0050	mg/kg	0.0122	<0.0050	0.0447	0.0091	0.364
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.478	<0.020	0.024	0.502	0.070
copper	7440-50-8	E440	0.10	mg/kg	4.30	4.59	4.20	3.87	4.46
iron	7439-89-6	E440	3.0	mg/kg	46.4	22.1	45.4	67.0	64.7
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	0.028	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	4630	558	1150	3450	1260
manganese	7439-96-5	E440	0.050	mg/kg	140	15.9	1580	316	259
mercury	7439-97-6	E510	0.0050	mg/kg	0.0092	<0.0050	0.0121	0.0105	0.0101
molybdenum	7439-98-7	E440	0.020	mg/kg	0.556	0.680	0.281	0.707	3.49
nickel	7440-02-0	E440	0.20	mg/kg	0.45	3.01	0.21	0.68	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	2830	1740	1420	3790	2260
potassium	7440-09-7	E440	20	mg/kg	13600	10200	5920	18400	14400
rubidium	7440-17-7	E440	0.050	mg/kg	4.53	8.29	5.66	5.71	20.2
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	0.0053	<0.0050	0.0077	0.0085
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	104	7.98	10.7	95.4	50.2
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-QAQC-2021-003-WILL	CFMP-QAQC-2021-003-SOAP	CFMP-QAQC-2021-003-TEA	CFMP-SV-002-WILL	CFMP-SV-002-SEDG
				Client sampling date / time	11-Aug-2021	11-Aug-2021	11-Aug-2021	12-Aug-2021 13:45	12-Aug-2021 13:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-054	VA21B8310-056	VA21B8310-057	VA21B8310-058	VA21B8310-059
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	0.0021	<0.0020	<0.0020	<0.0020	0.0083
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.12	<0.25	1.54	0.56	0.57
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	68.8	9.51	29.5	48.5	14.5
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	<0.025	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-002-TEA	CFMP-SV-002-SOAP	CFMP-SV-002-BLUE	CFMP-SV-035-SOAP	CFMP-SV-035-WILL
				Client sampling date / time	12-Aug-2021 13:45	12-Aug-2021 13:45	12-Aug-2021 13:45	16-Aug-2021 09:45	16-Aug-2021 09:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-060	VA21B8310-061	VA21B8310-062	VA21B8310-064	VA21B8310-065
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	51.7	76.8	83.9	79.5	60.3
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	25.0	2.8	24.7	19.6	239
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.103
barium	7440-39-3	E440	0.050	mg/kg	69.2	1.29	17.0	2.31	119
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	16.8	13.8	9.8	9.3	14.8
cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	0.0161	0.0087	0.0165	1.13
calcium	7440-70-2	E440	20	mg/kg	4040	767	1010	725	23800
cesium	7440-46-2	E440	0.0050	mg/kg	0.0629	<0.0050	0.0182	0.0083	0.0204
chromium	7440-47-3	E440	0.050	mg/kg	0.051	<0.050	0.075	<0.050	0.346
cobalt	7440-48-4	E440	0.020	mg/kg	0.021	0.021	<0.020	0.022	0.314
copper	7440-50-8	E440	0.10	mg/kg	3.02	4.62	5.30	4.91	3.31
iron	7439-89-6	E440	3.0	mg/kg	35.1	22.1	28.9	39.7	357
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.084
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	865	569	774	531	3320
manganese	7439-96-5	E440	0.050	mg/kg	1510	10.4	362	13.2	226
mercury	7439-97-6	E510	0.0050	mg/kg	0.0058	<0.0050	<0.0051	<0.0050	0.0124
molybdenum	7439-98-7	E440	0.020	mg/kg	0.258	1.36	0.617	1.53	0.291
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	1.59	0.24	1.55	0.66
phosphorus	7723-14-0	E440	10	mg/kg	1580	2080	1790	2040	3270
potassium	7440-09-7	E440	20	mg/kg	6400	8510	7650	10200	10400
rubidium	7440-17-7	E440	0.050	mg/kg	7.71	6.69	5.81	7.01	2.61
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	0.051	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	0.0108	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	10.0	4.68	6.15	5.35	137
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-002-TEA	CFMP-SV-002-SOAP	CFMP-SV-002-BLUE	CFMP-SV-035-SOAP	CFMP-SV-035-WILL
				Client sampling date / time	12-Aug-2021 13:45	12-Aug-2021 13:45	12-Aug-2021 13:45	16-Aug-2021 09:45	16-Aug-2021 09:45
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-060	VA21B8310-061	VA21B8310-062	VA21B8310-064	VA21B8310-065
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0.68	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.74	<0.25	0.72	0.95	5.65
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0125
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	0.86
zinc	7440-66-6	E440	0.50	mg/kg	21.3	11.2	8.57	8.58	147
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	<0.025	0.028	<0.025	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	----

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-035-S EDG	CFMP-SV-036-S OAP	CFMP-SV-036-WILL	CFMP-SV-036-S EDG	CFMP-SV-037-S OAP
				Client sampling date / time	16-Aug-2021 09:45	16-Aug-2021 10:15	16-Aug-2021 10:15	16-Aug-2021 10:15	16-Aug-2021 11:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-066	VA21B8310-068	VA21B8310-069	VA21B8310-070	VA21B8310-072
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	72.1	78.6	59.0	56.8	76.8
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	80.1	10.0	46.0	53.0	12.1
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	0.215	<0.020	0.034	<0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	40.2	1.33	75.6	106	3.34
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	15.0	6.8	27.4	3.0	10.4
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0349	0.0083	1.10	0.0623	0.0117
calcium	7440-70-2	E440	20	mg/kg	6520	606	19700	4200	1070
cesium	7440-46-2	E440	0.0050	mg/kg	0.0380	0.0063	0.0063	0.0092	<0.0050
chromium	7440-47-3	E440	0.050	mg/kg	0.165	<0.050	0.072	0.192	0.086
cobalt	7440-48-4	E440	0.020	mg/kg	0.463	<0.020	0.288	0.036	<0.020
copper	7440-50-8	E440	0.10	mg/kg	3.97	4.31	3.58	3.86	5.65
iron	7439-89-6	E440	3.0	mg/kg	462	24.2	88.6	79.5	35.8
lead	7439-92-1	E440	0.020	mg/kg	0.042	<0.020	<0.020	0.043	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	1460	447	2360	543	673
manganese	7439-96-5	E440	0.050	mg/kg	933	13.4	72.7	1260	18.1
mercury	7439-97-6	E510	0.0050	mg/kg	0.0104	<0.0050	0.0102	0.0088	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	2.83	1.30	0.291	1.56	1.95
nickel	7440-02-0	E440	0.20	mg/kg	0.34	1.56	0.56	0.27	2.53
phosphorus	7723-14-0	E440	10	mg/kg	1710	1660	2840	1940	2390
potassium	7440-09-7	E440	20	mg/kg	20700	9470	10100	14900	10200
rubidium	7440-17-7	E440	0.050	mg/kg	8.39	6.77	3.20	6.84	6.01
selenium	7782-49-2	E440	0.050	mg/kg	0.122	<0.050	<0.050	<0.050	0.112
silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0069	0.0066	<0.0050	0.0063	0.0107
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	35.4	4.00	113	21.0	7.39
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-035-S EDG	CFMP-SV-036-S OAP	CFMP-SV-036-WILL	CFMP-SV-036-S EDG	CFMP-SV-037-S OAP
				Client sampling date / time	16-Aug-2021 09:45	16-Aug-2021 10:15	16-Aug-2021 10:15	16-Aug-2021 10:15	16-Aug-2021 11:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-066	VA21B8310-068	VA21B8310-069	VA21B8310-070	VA21B8310-072
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	0.0027	<0.0020	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	6.34	0.41	2.90	2.62	0.50
uranium	7440-61-1	E440	0.0020	mg/kg	0.0120	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	0.46	<0.10	0.16	0.13	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	20.9	7.23	108	40.6	11.8
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	----	----	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	----	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	----	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	----	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	----	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	----	----	<0.0050

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-037-WILL	CFMP-SV-037-SEDG	CFMP-SV-038-SOAP	CFMP-SV-038-WILL	CFMP-SV-038-SEDG
				Client sampling date / time	16-Aug-2021 11:00	16-Aug-2021 11:00	16-Aug-2021 11:30	16-Aug-2021 11:30	16-Aug-2021 11:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-073	VA21B8310-074	VA21B8310-076	VA21B8310-077	VA21B8310-078
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	59.5	52.8	78.7	57.2	65.0
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	24.8	28.3	57.9	240	77.1
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	0.022	0.028	0.025	0.128	0.066
barium	7440-39-3	E440	0.050	mg/kg	30.7	52.1	1.88	25.2	17.0
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	8.8	2.0	7.9	39.9	7.5
cadmium	7440-43-9	E440	0.0050	mg/kg	1.00	0.0183	0.0122	0.800	<0.0050
calcium	7440-70-2	E440	20	mg/kg	19600	3890	997	14600	5690
cesium	7440-46-2	E440	0.0050	mg/kg	0.0068	0.0341	0.0090	0.0219	0.0139
chromium	7440-47-3	E440	0.050	mg/kg	0.054	0.082	0.072	0.342	0.144
cobalt	7440-48-4	E440	0.020	mg/kg	0.328	0.063	0.045	0.278	0.045
copper	7440-50-8	E440	0.10	mg/kg	3.43	2.96	5.32	2.93	1.84
iron	7439-89-6	E440	3.0	mg/kg	63.8	57.8	47.3	408	156
lead	7439-92-1	E440	0.020	mg/kg	<0.020	0.035	0.024	0.095	0.032
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	2740	506	577	2540	1870
manganese	7439-96-5	E440	0.050	mg/kg	77.9	526	18.2	196	256
mercury	7439-97-6	E510	0.0050	mg/kg	0.0087	0.0076	<0.0050	0.0068	0.0060
molybdenum	7439-98-7	E440	0.020	mg/kg	0.235	1.09	1.92	0.607	1.60
nickel	7440-02-0	E440	0.20	mg/kg	2.69	<0.20	3.09	0.42	<0.20
phosphorus	7723-14-0	E440	10	mg/kg	3000	2090	1990	3640	1940
potassium	7440-09-7	E440	20	mg/kg	11800	17500	11200	11600	13400
rubidium	7440-17-7	E440	0.050	mg/kg	3.16	12.5	6.30	3.54	3.73
selenium	7782-49-2	E440	0.050	mg/kg	0.091	<0.050	0.121	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0.0186	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	114	24.4	6.08	82.3	26.8
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)				Client sample ID	CFMP-SV-037-WILL	CFMP-SV-037-SEDG	CFMP-SV-038-SOAP	CFMP-SV-038-WILL	CFMP-SV-038-SEDG
				Client sampling date / time	16-Aug-2021 11:00	16-Aug-2021 11:00	16-Aug-2021 11:30	16-Aug-2021 11:30	16-Aug-2021 11:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-073	VA21B8310-074	VA21B8310-076	VA21B8310-077	VA21B8310-078
					Result	Result	Result	Result	Result
Metals									
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	0.0024	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	0.13	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.89	1.52	2.94	14.0	4.80
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	0.0069	0.0023
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0.18	0.96	0.27
zinc	7440-66-6	E440	0.50	mg/kg	51.6	14.1	12.9	93.8	25.1
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	<0.025	----	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	----	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	----	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	----	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	----	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	----	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-039-SOAP	CFMP-SV-039-WILL	CFMP-SV-039-SEDE	M01 CFMP-SV-001-HUCK	M01 CFMP-SV-001-BLUE
				Client sampling date / time	16-Aug-2021 12:30	16-Aug-2021 12:30	16-Aug-2021 12:30	20-Aug-2021 07:30	20-Aug-2021 07:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-080	VA21B8310-081	VA21B8310-082	VA21B8310-084	VA21B8310-085
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	77.4	67.0	68.2	86.1	89.0
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	26.6	138	62.7	24.0	16.1
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	0.201	0.138	0.065	<0.020
barium	7440-39-3	E440	0.050	mg/kg	2.72	4.13	39.7	25.2	19.5
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	9.6	32.1	15.4	3.3	3.7
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0114	0.196	0.0075	0.0093	0.0057
calcium	7440-70-2	E440	20	mg/kg	912	8130	6600	1850	1200
cesium	7440-46-2	E440	0.0050	mg/kg	0.0115	0.0330	0.0654	2.26	2.00
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.256	0.139	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.025	0.350	0.071	<0.020	<0.020
copper	7440-50-8	E440	0.10	mg/kg	4.99	2.98	1.39	5.60	4.84
iron	7439-89-6	E440	3.0	mg/kg	45.1	241	148	18.8	14.2
lead	7439-92-1	E440	0.020	mg/kg	<0.020	0.050	0.032	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	586	2620	2090	919	688
manganese	7439-96-5	E440	0.050	mg/kg	24.0	281	221	330	191
mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0090	0.0109	<0.0052	<0.0050
molybdenum	7439-98-7	E440	0.020	mg/kg	1.42	0.896	1.72	0.463	0.544
nickel	7440-02-0	E440	0.20	mg/kg	2.19	0.36	0.21	0.49	0.26
phosphorus	7723-14-0	E440	10	mg/kg	2260	2680	2090	2480	1660
potassium	7440-09-7	E440	20	mg/kg	11100	11800	12600	7890	7010
rubidium	7440-17-7	E440	0.050	mg/kg	7.31	9.45	11.1	41.8	33.4
selenium	7782-49-2	E440	0.050	mg/kg	0.072	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0126	<0.0050	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	<20	<20	35	<20
strontium	7440-24-6	E440	0.050	mg/kg	6.23	40.5	41.6	3.57	3.04

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	CFMP-SV-039-SOAP	CFMP-SV-039-WILL	CFMP-SV-039-SEDE	M01 CFMP-SV-001-HUCK	M01 CFMP-SV-001-BLUE
				Client sampling date / time	16-Aug-2021 12:30	16-Aug-2021 12:30	16-Aug-2021 12:30	20-Aug-2021 07:30	20-Aug-2021 07:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-080	VA21B8310-081	VA21B8310-082	VA21B8310-084	VA21B8310-085
					Result	Result	Result	Result	Result
Metals									
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	0.0028	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	1.37	0.86
titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.09	9.57	1.61	<0.25	<0.25
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	0.0038	0.0022	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	0.50	0.21	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	10.5	68.9	31.2	12.0	8.17
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----	----	<0.025	0.026
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	----	----	0.0184	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	----	----	<0.0050	<0.0050

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	M01 CFMP-SV-001-WILL	M01 CFMP-SV-001-SEDG	N006 CFMP-SV-006-HUCK	N006 CFMP-SV-006-BLUE	N006 CFMP-SV-006-WILL
				Client sampling date / time	20-Aug-2021 07:30	20-Aug-2021 07:30	20-Aug-2021 10:00	20-Aug-2021 10:00	20-Aug-2021 10:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-086	VA21B8310-087	VA21B8310-089	VA21B8310-090	VA21B8310-091
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	66.6	63.6	89.7	87.9	67.5
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	4.6	12.9	18.0	19.0	81.4
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	0.028	0.585	<0.020	0.020	<0.020
barium	7440-39-3	E440	0.050	mg/kg	4.36	9.44	21.4	17.1	44.1
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	0.013	<0.010	<0.010	0.053
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	2.8	2.9	3.4	3.0	2.5
cadmium	7440-43-9	E440	0.0050	mg/kg	1.63	0.0569	0.0113	0.0098	0.376
calcium	7440-70-2	E440	20	mg/kg	11600	5100	1560	896	11700
cesium	7440-46-2	E440	0.0050	mg/kg	15.2	32.6	0.0848	0.0150	0.147
chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.067	<0.050	<0.050	<0.050
cobalt	7440-48-4	E440	0.020	mg/kg	0.160	0.036	<0.020	<0.020	1.56
copper	7440-50-8	E440	0.10	mg/kg	3.66	4.91	5.82	5.90	3.05
iron	7439-89-6	E440	3.0	mg/kg	44.2	8.2	15.4	14.8	35.7
lead	7439-92-1	E440	0.020	mg/kg	<0.020	0.027	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	2710	1230	500	458	1770
manganese	7439-96-5	E440	0.050	mg/kg	74.6	350	159	116	146
mercury	7439-97-6	E510	0.0050	mg/kg	0.0074	0.0064	<0.0050	<0.0050	0.0072
molybdenum	7439-98-7	E440	0.020	mg/kg	0.760	4.48	0.256	0.385	0.430
nickel	7440-02-0	E440	0.20	mg/kg	0.46	0.50	0.32	0.22	1.29
phosphorus	7723-14-0	E440	10	mg/kg	2910	2240	1780	1690	4040
potassium	7440-09-7	E440	20	mg/kg	8310	11700	5180	5410	18200
rubidium	7440-17-7	E440	0.050	mg/kg	33.0	48.3	28.6	10.2	44.1
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	0.0236	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	<20	22	<20	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	39.3	21.2	7.40	7.08	153

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	M01 CFMP-SV-001-WILL	M01 CFMP-SV-001-SEDG	N006 CFMP-SV-006-HUCK	N006 CFMP-SV-006-BLUE	N006 CFMP-SV-006-WILL
				Client sampling date / time	20-Aug-2021 07:30	20-Aug-2021 07:30	20-Aug-2021 10:00	20-Aug-2021 10:00	20-Aug-2021 10:00
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-086	VA21B8310-087	VA21B8310-089	VA21B8310-090	VA21B8310-091
					Result	Result	Result	Result	Result
Metals									
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
thallium	7440-28-0	E440	0.0020	mg/kg	0.0057	0.0035	<0.0020	<0.0020	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.32	<0.25	<0.25	<0.25	0.36
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	0.0110	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	59.6	41.6	9.08	8.88	56.4
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	----	0.027	0.027	----
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	----	<0.0050	0.0052	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	----	<0.0050	<0.0050	----

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	N006 CFMP-SV-006-S EDGE	N014 CFMP-SV-014-S OAP	N014 CFMP-SV-014-B LUE	N014 CFMP-SV-014-WILL	N014 CFMP-SV-014-L ABT
				Client sampling date / time	20-Aug-2021 10:00	20-Aug-2021 12:30	20-Aug-2021 12:30	20-Aug-2021 12:30	20-Aug-2021 12:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-092	VA21B8310-094	VA21B8310-095	VA21B8310-096	VA21B8310-097
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.50	%	63.3	79.7	84.2	68.1	54.1
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	5.9	14.4	30.0	20.1	40.2
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	<0.020	0.028	<0.020
barium	7440-39-3	E440	0.050	mg/kg	20.6	2.66	14.6	19.4	64.0
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
boron	7440-42-8	E440	1.0	mg/kg	1.9	12.3	9.6	7.6	10.4
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0538	0.0059	0.0058	0.897	<0.0050
calcium	7440-70-2	E440	20	mg/kg	3750	844	845	14200	4440
cesium	7440-46-2	E440	0.0050	mg/kg	0.126	0.0051	0.0156	0.0315	0.0197
chromium	7440-47-3	E440	0.050	mg/kg	0.269	<0.050	<0.050	0.075	0.076
cobalt	7440-48-4	E440	0.020	mg/kg	0.031	0.028	<0.020	0.741	<0.020
copper	7440-50-8	E440	0.10	mg/kg	3.29	5.59	4.33	4.89	2.81
iron	7439-89-6	E440	3.0	mg/kg	32.0	40.2	17.0	78.3	52.5
lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
magnesium	7439-95-4	E440	2.0	mg/kg	842	579	509	3440	1270
manganese	7439-96-5	E440	0.050	mg/kg	663	17.6	214	325	1640
mercury	7439-97-6	E510	0.0050	mg/kg	0.0070	<0.0050	<0.0054	0.0096	0.0078
molybdenum	7439-98-7	E440	0.020	mg/kg	1.73	1.39	0.479	0.634	0.218
nickel	7440-02-0	E440	0.20	mg/kg	0.31	2.22	0.26	1.75	0.38
phosphorus	7723-14-0	E440	10	mg/kg	2150	2180	1630	3550	1720
potassium	7440-09-7	E440	20	mg/kg	11600	10800	8490	13800	5810
rubidium	7440-17-7	E440	0.050	mg/kg	22.5	13.5	9.38	11.1	6.52
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	0.0062	<0.0050	<0.0050	<0.0050
sodium	7440-23-5	E440	20	mg/kg	30	<20	23	<20	<20
strontium	7440-24-6	E440	0.050	mg/kg	35.7	7.99	3.06	115	18.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	N006 CFMP-SV-006-S EDGE	N014 CFMP-SV-014-S OAP	N014 CFMP-SV-014-B LUE	N014 CFMP-SV-014-WILL	N014 CFMP-SV-014-L ABT
				Client sampling date / time	20-Aug-2021 10:00	20-Aug-2021 12:30	20-Aug-2021 12:30	20-Aug-2021 12:30	20-Aug-2021 12:30
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-092	VA21B8310-094	VA21B8310-095	VA21B8310-096	VA21B8310-097
					Result	Result	Result	Result	Result
Metals									
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020
thallium	7440-28-0	E440	0.0020	mg/kg	0.0055	<0.0020	<0.0020	0.0071	<0.0020
tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	1.39	<0.10	<0.10
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.32	0.92	<0.25	1.31	1.77
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
zinc	7440-66-6	E440	0.50	mg/kg	30.7	11.7	5.53	88.4	25.3
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Speciated Metals									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	----	<0.025	<0.025	----	<0.025
arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	----	<0.0050	<0.0050	----	<0.0050

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

				Client sample ID	N014 CFMP-SV-014-S EDG	----	----	----	----
				Client sampling date / time	20-Aug-2021 12:30	----	----	----	----
Analyte	CAS Number	Method	LOR	Unit	VA21B8310-098	--------	--------	--------	--------
					Result	----	----	----	----
Physical Tests									
moisture	----	E144	0.50	%	56.6	----	----	----	----
Metals									
aluminum	7429-90-5	E440	2.0	mg/kg	8.5	----	----	----	----
antimony	7440-36-0	E440	0.010	mg/kg	<0.010	----	----	----	----
arsenic	7440-38-2	E440	0.020	mg/kg	0.101	----	----	----	----
barium	7440-39-3	E440	0.050	mg/kg	21.9	----	----	----	----
beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	----	----	----	----
bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	----	----	----	----
boron	7440-42-8	E440	1.0	mg/kg	2.2	----	----	----	----
cadmium	7440-43-9	E440	0.0050	mg/kg	0.0136	----	----	----	----
calcium	7440-70-2	E440	20	mg/kg	3250	----	----	----	----
cesium	7440-46-2	E440	0.0050	mg/kg	0.934	----	----	----	----
chromium	7440-47-3	E440	0.050	mg/kg	0.125	----	----	----	----
cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	----	----	----	----
copper	7440-50-8	E440	0.10	mg/kg	2.46	----	----	----	----
iron	7439-89-6	E440	3.0	mg/kg	40.1	----	----	----	----
lead	7439-92-1	E440	0.020	mg/kg	<0.020	----	----	----	----
lithium	7439-93-2	E440	0.50	mg/kg	<0.50	----	----	----	----
magnesium	7439-95-4	E440	2.0	mg/kg	1000	----	----	----	----
manganese	7439-96-5	E440	0.050	mg/kg	205	----	----	----	----
mercury	7439-97-6	E510	0.0050	mg/kg	0.0059	----	----	----	----
molybdenum	7439-98-7	E440	0.020	mg/kg	1.92	----	----	----	----
nickel	7440-02-0	E440	0.20	mg/kg	<0.20	----	----	----	----
phosphorus	7723-14-0	E440	10	mg/kg	1820	----	----	----	----
potassium	7440-09-7	E440	20	mg/kg	11400	----	----	----	----
rubidium	7440-17-7	E440	0.050	mg/kg	21.2	----	----	----	----
selenium	7782-49-2	E440	0.050	mg/kg	<0.050	----	----	----	----
silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	----	----	----	----
sodium	7440-23-5	E440	20	mg/kg	<20	----	----	----	----
strontium	7440-24-6	E440	0.050	mg/kg	25.5	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue** (Matrix: **Biota**)				Client sample ID	**N014 CFMP-SV-014-S EDG**	----	----	----	----
				Client sampling date / time	20-Aug-2021 12:30	----	----	----	----
Analyte	CAS Number	Method	LOR	Unit	**VA21B8310-098**	--------	--------	--------	--------
					Result	----	----	----	----
Metals									
tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	----	----	----	----
thallium	7440-28-0	E440	0.0020	mg/kg	0.0080	----	----	----	----
tin	7440-31-5	E440	0.10	mg/kg	<0.10	----	----	----	----
titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.38	----	----	----	----
uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	----	----	----	----
vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	----	----	----	----
zinc	7440-66-6	E440	0.50	mg/kg	25.6	----	----	----	----
zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	----	----	----	----

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

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA21B8310**	Page	: 1 of 62
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Nicole Bishop	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Blackwater Project	Date Samples Received	: 25-Aug-2021 10:25
PO	: ----	Issue Date	: 25-Nov-2021 12:12
C-O-C number	: 21-ERM0100-002		
Sampler	: JA		
Site	: ----		
Quote number	: VA21-ERMO100-002		
No. of samples received	: 104		
No. of samples analysed	: 99		

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 Services number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Summary of Outliers

Outliers : Quality Control Samples

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

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA21B8310-076	CFMP-SV-038-SOAP	iron	7439-89-6	E440	58.0 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	boron	7440-42-8	E472	64.9 % DUP-H	40%	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.*

Matrix Spike (MS) Recoveries								
Speciated Metals	VA21B8310-060	CFMP-SV-002-TEA	arsenite [As III]	22541-54-4	E539	64.5 % SPMS	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	*Description*
SPMS	*Matrix spike recovery outside ALS DQO for metals speciation test. Sample matrix may not support stability of indicated analyte. Species conversion of spiked analyte due to matrix is suspected.*

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Metals	QC-MRG2-281369002	----	antimony	7440-36-0	E440	123 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG2-281369002	----	bismuth	7440-69-9	E440	122 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

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: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-SV-031-HUCK	E511	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SOAP	E510	16-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	100 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SOAP	E510	16-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	100 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SOAP	E510	16-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	100 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SOAP	E510	16-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	100 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SOAP	E510	13-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	103 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-002-BLUE	E510	12-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	104 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-002-SOAP	E510	12-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	104 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-032-HUCK	E510	12-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	104 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-SOAP	E510	11-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	105 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-SOAP	E510	11-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	105 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-HUCK	E510	10-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	106 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-033-HUCK	E510	10-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	106 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-034-HUCK	E510	10-Aug-2021	28-Oct-2021	----	----		24-Nov-2021	365 days	106 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-WILL	E510	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-WILL	E510	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	63 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-035-WILL	E510	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-036-WILL	E510	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-037-WILL	E510	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-038-WILL	E510	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-039-WILL	E510	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-027-BLUE	E510	14-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SOAP	E510	14-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	68 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-029-SOAP	E510	13-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-031-WILL	E510	13-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	70 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
M01 CFMP-SV-001-SEDG	E510	20-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-SV-002-WILL	E510	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-SV-032-WILL	E510	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-002-WILL	E510	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-003-WILL	E510	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-SV-028-BLUE	E510	10-Aug-2021	20-Oct-2021	----	----		21-Oct-2021	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-001-WILL	E510	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-SV-028-WILL	E510	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
CFMP-SV-033-WILL	E510	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	73 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-034-WILL	E510	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SEDG	E510	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	74 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SEDG	E510	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	74 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SEDE	E510	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	74 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-BLUE	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-HUCK	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-BLUE	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-HUCK	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-BLUE	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SEDG	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SOAP	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-WILL	E510	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SEDG	E510	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	76 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-027-WILL	E510	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	76 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-029-TEA	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-029-WILL	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SEDG	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-030-WILL	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-031-SEDG	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-031-TEA	E510	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-032-TEA	E510	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-TEA	E510	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-TEA	E510	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SEDG	E510	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SEDG	E510	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SOAP	E510	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-028-SEDG	E510	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	80 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-033-SEDG	E510	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	80 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-033-TEA	E510	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	80 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-034-SEDG	E510	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	80 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-034-TEA	E510	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	365 days	80 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-027-TEA	E510	14-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	81 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-029-SEDGE	E510	13-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-SEDGE	E510	20-Aug-2021	09-Nov-2021	----	----		10-Nov-2021	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-LABT	E510	20-Aug-2021	09-Nov-2021	----	----		10-Nov-2021	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-002-SEDG	E510	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	83 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-002-TEA	E510	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-032-SEDGE	E510	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-SEGDE	E510	11-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-SEDG	E510	10-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-SV-030-TEA	E510	13-Aug-2021	09-Nov-2021	----	----		10-Nov-2021	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-TEA	E510	10-Aug-2021	09-Nov-2021	----	----		10-Nov-2021	365 days	92 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-SV-031-HUCK	E472	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-WILL	E440	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-WILL	E440	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	63 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-BLUE	E440	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SOAP	E440	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-WILL	E440	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-WILL	E440	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-WILL	E440	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-WILL	E440	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-WILL	E440	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-SOAP	E440	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-WILL	E440	13-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	70 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
M01 CFMP-SV-001-SEDG	E440	20-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	70 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-002-WILL	E440	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-028-BLUE	E440	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-032-WILL	E440	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-002-WILL	E440	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	72 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-003-WILL	E440	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	72 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-001-WILL	E440	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-028-WILL	E440	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-033-WILL	E440	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-WILL	E440	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SOAP	E440	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SOAP	E440	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SOAP	E440	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SOAP	E440	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SEDG	E440	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SEDG	E440	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SEDE	E440	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-BLUE	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-HUCK	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-BLUE	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-HUCK	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-BLUE	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SEDG	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SOAP	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-WILL	E440	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SEDG	E440	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-WILL	E440	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SOAP	E440	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-BLUE	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-SOAP	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-TEA	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-WILL	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SEDG	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-WILL	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-SEDG	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-TEA	E440	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-HUCK	E440	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-SOAP	E440	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-SOAP	E440	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-TEA	E440	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-HUCK	E440	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-TEA	E440	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-TEA	E440	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-HUCK	E440	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-HUCK	E440	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SEDG	E440	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SEDG	E440	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SOAP	E440	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-028-SEDG	E440	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-SEDG	E440	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-TEA	E440	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-SEDG	E440	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-TEA	E440	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-TEA	E440	14-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	81 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-SEDGE	E440	20-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	81 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-LABT	E440	20-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	81 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-SEDGE	E440	13-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-SEDG	E440	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-TEA	E440	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-SEDGE	E440	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-SEGDE	E440	11-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-SEDG	E440	10-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-TEA	E440	13-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	88 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-TEA	E440	10-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	91 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-SV-031-HUCK	E472.Ag	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	730 days	83 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-WILL	E440.Ag	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	63 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-WILL	E440.Ag	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	63 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-BLUE	E440.Ag	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SOAP	E440.Ag	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-WILL	E440.Ag	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-WILL	E440.Ag	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-WILL	E440.Ag	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-WILL	E440.Ag	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-WILL	E440.Ag	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-SOAP	E440.Ag	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-WILL	E440.Ag	13-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-SEDG	E440.Ag	20-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	70 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-WILL	E440.Ag	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	71 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-028-BLUE	E440.Ag	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-WILL	E440.Ag	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	71 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-WILL	E440.Ag	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	72 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-WILL	E440.Ag	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	72 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-WILL	E440.Ag	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-028-WILL	E440.Ag	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-WILL	E440.Ag	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-WILL	E440.Ag	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SOAP	E440.Ag	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SOAP	E440.Ag	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SOAP	E440.Ag	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SOAP	E440.Ag	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SEDG	E440.Ag	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SEDG	E440.Ag	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SEDE	E440.Ag	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-BLUE	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-HUCK	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-BLUE	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-HUCK	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-BLUE	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SEDG	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SOAP	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-WILL	E440.Ag	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SEDG	E440.Ag	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-WILL	E440.Ag	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SOAP	E440.Ag	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-BLUE	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-SOAP	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-TEA	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-WILL	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SEDG	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-WILL	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-SEDG	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-TEA	E440.Ag	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-HUCK	E440.Ag	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-SOAP	E440.Ag	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-SOAP	E440.Ag	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-TEA	E440.Ag	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-HUCK	E440.Ag	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-TEA	E440.Ag	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-TEA	E440.Ag	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-HUCK	E440.Ag	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-HUCK	E440.Ag	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SEDG	E440.Ag	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SEDG	E440.Ag	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SOAP	E440.Ag	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-028-SEDG	E440.Ag	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-SEDG	E440.Ag	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-TEA	E440.Ag	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-SEDG	E440.Ag	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-TEA	E440.Ag	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-TEA	E440.Ag	14-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	81 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-SEDGE	E440.Ag	20-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	81 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-LABT	E440.Ag	20-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	81 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-SEDGE	E440.Ag	13-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	82 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-SEDG	E440.Ag	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-TEA	E440.Ag	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-SEDGE	E440.Ag	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-SEGDE	E440.Ag	11-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	84 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-SEDG	E440.Ag	10-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	85 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-TEA	E440.Ag	13-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	88 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-TEA	E440.Ag	10-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	91 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-SV-031-HUCK	E472.Ti	13-Aug-2021	04-Nov-2021	----	----		04-Nov-2021	730 days	83 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-WILL	E440.Ti	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	63 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-WILL	E440.Ti	20-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	63 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-BLUE	E440.Ti	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SOAP	E440.Ti	14-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-WILL	E440.Ti	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-WILL	E440.Ti	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-WILL	E440.Ti	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-WILL	E440.Ti	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-WILL	E440.Ti	16-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	67 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-SOAP	E440.Ti	13-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	68 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-WILL	E440.Ti	13-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	70 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-SEDG	E440.Ti	20-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	70 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-WILL	E440.Ti	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	71 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-028-BLUE	E440.Ti	10-Aug-2021	20-Oct-2021	----	----		20-Oct-2021	730 days	71 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-WILL	E440.Ti	12-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	71 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-WILL	E440.Ti	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	72 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-WILL	E440.Ti	11-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	72 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-WILL	E440.Ti	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-028-WILL	E440.Ti	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-WILL	E440.Ti	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-WILL	E440.Ti	10-Aug-2021	22-Oct-2021	----	----		22-Oct-2021	730 days	73 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SOAP	E440.Ti	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SOAP	E440.Ti	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SOAP	E440.Ti	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SOAP	E440.Ti	16-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	73 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-036-SEDG	E440.Ti	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-038-SEDG	E440.Ti	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SEDE	E440.Ti	16-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	74 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-BLUE	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag M01 CFMP-SV-001-HUCK	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-BLUE	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-HUCK	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-BLUE	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SEDG	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-SOAP	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N014 CFMP-SV-014-WILL	E440.Ti	20-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	75 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-SEDG	E440.Ti	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-WILL	E440.Ti	14-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	76 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SOAP	E440.Ti	13-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	76 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-BLUE	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-002-SOAP	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-TEA	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-029-WILL	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-SEDG	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-030-WILL	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-SEDG	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-031-TEA	E440.Ti	13-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	77 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-HUCK	E440.Ti	12-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	77 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-SOAP	E440.Ti	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-SOAP	E440.Ti	11-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-032-TEA	E440.Ti	12-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	78 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-001-HUCK	E440.Ti	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-002-TEA	E440.Ti	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-QAQC-2021-003-TEA	E440.Ti	11-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-HUCK	E440.Ti	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-HUCK	E440.Ti	10-Aug-2021	28-Oct-2021	----	----		28-Oct-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-035-SEDG	E440.Ti	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-037-SEDG	E440.Ti	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-039-SOAP	E440.Ti	16-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	79 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-028-SEDG	E440.Ti	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-SEDG	E440.Ti	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-033-TEA	E440.Ti	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-SEDG	E440.Ti	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-034-TEA	E440.Ti	10-Aug-2021	29-Oct-2021	----	----		29-Oct-2021	730 days	80 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-SV-027-TEA	E440.Ti	14-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	81 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag N006 CFMP-SV-006-SEDGE	E440.Ti	20-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	81 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
N014 CFMP-SV-014-LABT	E440.Ti	20-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	81 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-029-SEDGE	E440.Ti	13-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	82 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-002-SEDG	E440.Ti	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-002-TEA	E440.Ti	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-032-SEDGE	E440.Ti	12-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	83 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-002-SEGDE	E440.Ti	11-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	84 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-001-SEDG	E440.Ti	10-Aug-2021	03-Nov-2021	----	----		03-Nov-2021	730 days	85 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-SV-030-TEA	E440.Ti	13-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	88 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag										
CFMP-QAQC-2021-001-TEA	E440.Ti	10-Aug-2021	09-Nov-2021	----	----		09-Nov-2021	730 days	91 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag										
CFMP-SV-031-HUCK	E144-H	13-Aug-2021	----	----	----		26-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-001-HUCK	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-001-SEDG	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-001-TEA	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-001-WILL	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-002-SEGDE	E144	11-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-002-SOAP	E144	11-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-002-TEA	E144	11-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-QAQC-2021-002-WILL	E144	11-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-QAQC-2021-003-SOAP	E144	11-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-QAQC-2021-003-TEA	E144	11-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-QAQC-2021-003-WILL	E144	11-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-002-BLUE	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-002-SEDG	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-002-SOAP	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-002-TEA	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-002-WILL	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-027-BLUE	E144	14-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times: Rec	Holding Times: Actual	Eval	Analysis: Analysis Date	Holding Times: Rec	Holding Times: Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-027-SEDG	E144	14-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-027-SOAP	E144	14-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-027-TEA	E144	14-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-027-WILL	E144	14-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-028-BLUE	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-028-SEDG	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-028-WILL	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-029-SEDGE	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
CFMP-SV-029-SOAP	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-029-TEA	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-029-WILL	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-030-SEDG	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-030-SOAP	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-030-TEA	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-030-WILL	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-031-SEDG	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-031-TEA	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-031-WILL	E144	13-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-032-HUCK	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-032-SEDGE	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-032-TEA	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-032-WILL	E144	12-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-033-HUCK	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-033-SEDG	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-033-TEA	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-033-WILL	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-034-HUCK	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-034-SEDG	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-034-TEA	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-034-WILL	E144	10-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-035-SEDG	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-035-SOAP	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-035-WILL	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-036-SEDG	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-036-SOAP	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-036-WILL	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times: Rec	Holding Times: Actual	Eval	Analysis: Analysis Date	Holding Times: Rec	Holding Times: Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-037-SEDG	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-037-SOAP	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-037-WILL	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-038-SEDG	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-038-SOAP	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-038-WILL	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-039-SEDE	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-039-SOAP	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-SV-039-WILL	E144	16-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag M01 CFMP-SV-001-BLUE	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag M01 CFMP-SV-001-HUCK	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag M01 CFMP-SV-001-SEDG	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag M01 CFMP-SV-001-WILL	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N006 CFMP-SV-006-BLUE	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N006 CFMP-SV-006-HUCK	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N006 CFMP-SV-006-SEDGE	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N006 CFMP-SV-006-WILL	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N014 CFMP-SV-014-BLUE	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N014 CFMP-SV-014-LABT	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N014 CFMP-SV-014-SEDG	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N014 CFMP-SV-014-SOAP	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag N014 CFMP-SV-014-WILL	E144	20-Aug-2021	----	----	----		04-Oct-2021	----	----	
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag M01 CFMP-SV-001-BLUE	E539	20-Aug-2021	06-Oct-2021	730 days	47 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag M01 CFMP-SV-001-HUCK	E539	20-Aug-2021	06-Oct-2021	730 days	47 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag N006 CFMP-SV-006-BLUE	E539	20-Aug-2021	06-Oct-2021	730 days	47 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag N006 CFMP-SV-006-HUCK	E539	20-Aug-2021	06-Oct-2021	730 days	47 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag N014 CFMP-SV-014-BLUE	E539	20-Aug-2021	06-Oct-2021	730 days	47 days	✓	07-Oct-2021	730 days	1 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag N014 CFMP-SV-014-LABT	E539	20-Aug-2021	06-Oct-2021	730 days	47 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag N014 CFMP-SV-014-SOAP	E539	20-Aug-2021	06-Oct-2021	730 days	47 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-035-SOAP	E539	16-Aug-2021	06-Oct-2021	730 days	51 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-036-SOAP	E539	16-Aug-2021	06-Oct-2021	730 days	51 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-037-SOAP	E539	16-Aug-2021	06-Oct-2021	730 days	51 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-038-SOAP	E539	16-Aug-2021	06-Oct-2021	730 days	51 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-039-SOAP	E539	16-Aug-2021	06-Oct-2021	730 days	51 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-027-BLUE	E539	14-Aug-2021	06-Oct-2021	730 days	53 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-027-SOAP	E539	14-Aug-2021	06-Oct-2021	730 days	53 days	✓	07-Oct-2021	730 days	1 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-027-TEA	E539	14-Aug-2021	06-Oct-2021	730 days	53 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-029-SOAP	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-029-TEA	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-030-SOAP	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-030-TEA	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-031-TEA	E539	13-Aug-2021	06-Oct-2021	730 days	54 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-002-BLUE	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-002-SOAP	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-002-TEA	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	07-Oct-2021	730 days	1 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-032-HUCK	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-032-TEA	E539	12-Aug-2021	06-Oct-2021	730 days	55 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-QAQC-2021-002-SOAP	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-QAQC-2021-002-TEA	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-QAQC-2021-003-SOAP	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-QAQC-2021-003-TEA	E539	11-Aug-2021	06-Oct-2021	730 days	56 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-QAQC-2021-001-HUCK	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-QAQC-2021-001-TEA	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-028-BLUE	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	07-Oct-2021	730 days	1 days	✓

Matrix: **Biota**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-033-HUCK	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-033-TEA	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-034-HUCK	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	07-Oct-2021	730 days	1 days	✓
Speciated Metals : Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)										
LDPE bag CFMP-SV-034-TEA	E539	10-Aug-2021	06-Oct-2021	730 days	57 days	✓	07-Oct-2021	730 days	1 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag M01 CFMP-SV-001-Soil	E510	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	12 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag N006 CFMP-SV-006-Soil	E510	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	12 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag N014 CFMP-SV-014-Soil	E510	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	12 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-035-Soil	E510	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	16 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-036-Soil	E510	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-037-Soil	E510	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-038-Soil	E510	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-039-Soil	E510	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-027-Soil	E510	14-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-029-Soil	E510	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-030-Soil	E510	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-031-Soil	E510	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag CFMP-SV-002-Soil	E510	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-032-Soil U	E510	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-032-Soil W	E510	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-QAQC-2021-002-Soil U	E510	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-QAQC-2021-002-Soil W	E510	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-QAQC-2021-003-Soil	E510	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-QAQC-2021-001-Soil	E510	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-028-Soil U	E510	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-028-Soil W	E510	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-033-Soil	E510	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag										
CFMP-SV-034-Soil	E510	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	28 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
M01 CFMP-SV-001-Soil	E440	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
N006 CFMP-SV-006-Soil	E440	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
N014 CFMP-SV-014-Soil	E440	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-035-Soil	E440	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	16 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-036-Soil	E440	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	16 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-037-Soil	E440	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	16 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-038-Soil	E440	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	16 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-039-Soil	E440	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	180 days	16 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV-027-Soil	E440	14-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV-029-Soil	E440	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV-030-Soil	E440	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV-031-Soil	E440	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV-002-Soil	E440	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV-032-Soil U	E440	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-SV-032-Soil W	E440	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-QAQC-2021-002-Soil U	E440	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag CFMP-QAQC-2021-002-Soil W	E440	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation: Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis: Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-QAQC-2021-003-Soil	E440	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-QAQC-2021-001-Soil	E440	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-028-Soil U	E440	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-028-Soil W	E440	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-033-Soil	E440	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag										
CFMP-SV-034-Soil	E440	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	180 days	23 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag										
M01 CFMP-SV-001-Soil	E108	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	12 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag										
N006 CFMP-SV-006-Soil	E108	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	12 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag										
N014 CFMP-SV-014-Soil	E108	20-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	12 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-035-Soil	E108	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-036-Soil	E108	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-037-Soil	E108	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-038-Soil	E108	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-039-Soil	E108	16-Aug-2021	01-Sep-2021	----	----		01-Sep-2021	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-027-Soil	E108	14-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-029-Soil	E108	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-030-Soil	E108	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-031-Soil	E108	13-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	20 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-002-Soil	E108	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-032-Soil U	E108	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-032-Soil W	E108	12-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-QAQC-2021-002-Soil U	E108	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-QAQC-2021-002-Soil W	E108	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-QAQC-2021-003-Soil	E108	11-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-QAQC-2021-001-Soil	E108	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	23 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-028-Soil U	E108	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	23 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag CFMP-SV-028-Soil W	E108	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	23 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag										
CFMP-SV-033-Soil	E108	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	23 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag										
CFMP-SV-034-Soil	E108	10-Aug-2021	02-Sep-2021	----	----		02-Sep-2021	30 days	23 days	✓

Legend & Qualifier Definitions

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: **Biota**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	312724	2	36	5.5	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	329533	1	10	10.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	323561	9	124	7.2	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	329534	2	10	20.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	323559	9	124	7.2	5.0	✓
Moisture Content by Gravimetry	E144	310721	4	75	5.3	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	329537	1	10	10.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	329535	1	2	50.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	323560	9	123	7.3	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	329536	1	2	50.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	323562	9	123	7.3	5.0	✓
Laboratory Control Samples (LCS)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	312724	4	36	11.1	30.0	✗
Mercury in Biota by CVAAS (DRY units, Micro)	E511	329533	2	10	20.0	10.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	323561	18	124	14.5	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	329534	3	10	30.0	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	323559	18	124	14.5	10.0	✓
Moisture Content by Gravimetry	E144	310721	4	75	5.3	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	329537	1	10	10.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	329535	2	2	100.0	10.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	323560	18	123	14.6	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	329536	2	2	100.0	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	323562	18	123	14.6	10.0	✓
Method Blanks (MB)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	312724	2	36	5.5	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	329533	1	10	10.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	323561	9	124	7.2	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	329534	1	10	10.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	323559	9	124	7.2	5.0	✓
Moisture Content by Gravimetry	E144	310721	4	75	5.3	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	329537	1	10	10.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	329535	1	2	50.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	323560	9	123	7.3	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	329536	1	2	50.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	323562	9	123	7.3	5.0	✓
Matrix Spikes (MS)							
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539	312724	2	36	5.5	5.0	✓

Matrix: **Soil/Solid**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Mercury in Soil/Solid by CVAAS	E510	281364	2	23	8.7	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	281365	2	23	8.7	5.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	281366	2	23	8.7	5.0	✓
Laboratory Control Samples (LCS)							
Mercury in Soil/Solid by CVAAS	E510	281364	4	23	17.3	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	281365	4	23	17.3	10.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	281366	2	23	8.7	5.0	✓
Method Blanks (MB)							
Mercury in Soil/Solid by CVAAS	E510	281364	2	23	8.7	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	281365	2	23	8.7	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
Moisture Content by Gravimetry	E144 Vancouver - Environmental	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Moisture Content by Gravimetry (Micro)	E144-H Vancouver - Environmental	Biota	Puget Sound Water Quality Authority/BC MOE Lab Manual	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472 Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti Vancouver - Environmental	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 Vancouver - Environmental	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Micro)	E511 Vancouver - Environmental	Biota	EPA 200.3/1631E (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Arsenic Species in Biota by HPLC-CRC ICPMS (DRY units)	E539 Vancouver - Environmental	Biota	CFIA SOM-DAR-CHE-053-04, Oct 2012	Instrumental analysis of Speciated Arsenic (As) is by Anion Exchange HPLC-ICPMS. The results reported for arsenic species represent those forms available to analysis using the particular enzymatic digestion and chromatographic conditions of the method. Total arsenic content is best measured using a more rigourous acid/peroxide digestion. Species concentrations will almost always be lower than those measured using the 'total' digestion. The proportion of total arsenic represented in the species concentrations varies considerably with sample matrix characteristics: plant vs. animal, lipid content, etc.
pH by Meter (1:2 Soil:Water Extraction)	E108 Vancouver - Environmental	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally 20 ± 5°C), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at <60 ºC) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Metals in Soil/Solid by CRC ICPMS	E440 Vancouver - Environmental	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 HNO3 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. Elemental Sulfur may be poorly recovered by this method. Analysis is by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Soil/Solid by CVAAS	E510 Vancouver - Environmental	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO3 and HCl, followed by CVAAS analysis.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion	EP440 Vancouver - Environmental	Biota	EPA 200.3	This method uses a heated strong acid digestion with HNO3, HCl, and H2O2 and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Micro)	EP472 Vancouver - Environmental	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO3, HCl, and H2O2 and is intended to provide a conservative estimate of bio-available metals.
Arsenic Species Extraction in Biota Preparation	EP539 Vancouver - Environmental	Biota	CFIA SOM-DAR-CHE-053-04, Oct 2012	Tissue Samples are homogenized and extracted using a methanol/enzymatic extraction procedure. Samples are extracted at 37 °C using Protease, Alpha amylase and Lipase in 25% methanol solution.
Leach 1:2 Soil:Water for pH/EC	EP108 Vancouver - Environmental	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury	EP440 Vancouver - Environmental	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.

QUALITY CONTROL REPORT

Work Order	: **VA21B8310**	Page	: 1 of 59
Client	: ERM Consultants Canada Ltd.	Laboratory	: Vancouver - Environmental
Contact	: Nicole Bishop	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Blackwater Project	Date Samples Received	: 25-Aug-2021 10:25
PO	: ----	Date Analysis Commenced	: 01-Sep-2021
C-O-C number	: 21-ERM0100-002	Issue Date	: 25-Nov-2021 12:12
Sampler	: JA		
Site	: ----		
Quote number	: VA21-ERMO100-002		
No. of samples received	: 104		
No. of samples analysed	: 99		

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 Percentage Difference (RPD) and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits
- Reference Material (RM) Report; Recovery and Acceptance Limits
- Method Blank (MB) Report; Recovery and Acceptance Limits
- Laboratory Control Sample (LCS) Report; Recovery and Acceptance Limits

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.

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia
Caleb Deroche	Lab Analyst	Metals, Burnaby, British Columbia
Dan Gebert	Laboratory Analyst	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
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Rebecca Sit	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Sristika Chand	Lab Analyst	Metals, Burnaby, 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 Services number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percentage Difference
# = Indicates a QC result that did not meet the ALS DQO.

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: **Biota**

					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: 310721)											
VA21B8310-001	CFMP-SV-027-WILL	moisture	----	E144	0.50	%	63.5	62.3	1.83%	20%	----
Physical Tests (QC Lot: 310722)											
VA21B8310-027	CFMP-SV-032-WILL	moisture	----	E144	0.50	%	65.1	65.3	0.360%	20%	----
Physical Tests (QC Lot: 310723)											
VA21B8310-054	CFMP-QAQC-2021-003-WILL	moisture	----	E144	0.50	%	67.6	66.8	1.29%	20%	----
Physical Tests (QC Lot: 310724)											
VA21B8310-080	CFMP-SV-039-SOAP	moisture	----	E144	0.50	%	77.4	78.0	0.844%	20%	----
Physical Tests (QC Lot: 329537)											
VA21B7973-007	Anonymous	moisture	----	E144-H	2.0	%	81.9	80.8	1.37%	20%	----
Metals (QC Lot: 323559)											
VA21B8310-015	CFMP-SV-029-SOAP	aluminum	7429-90-5	E440	2.0	mg/kg	2.5	2.5	0.06	Diff <2x LOR	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	1.44	1.35	6.39%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	13.2	13.2	0.206%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0060	<0.0050	0.0010	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	1120	1010	10.4%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0060	0.0059	0.00005	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	0.022	0.002	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	5.80	5.46	6.04%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	29.6	29.9	0.935%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	652	658	0.886%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	13.1	13.2	0.120%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	1.77	1.69	4.80%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	1.75	1.71	2.49%	40%	----
		phosphorus	7723-14-0	E440	10	mg/kg	2320	2340	0.826%	40%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 323559) - continued											
VA21B8310-015	CFMP-SV-029-SOAP	potassium	7440-09-7	E440	20	mg/kg	10900	10800	1.32%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	9.45	9.14	3.31%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	7.15	6.38	11.3%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	0.30	0.23	0.08	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	13.5	13.2	2.15%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 323560)											
VA21B8310-015	CFMP-SV-029-SOAP	silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0075	0.0058	0.0017	Diff <2x LOR	----
Metals (QC Lot: 323561)											
VA21B8310-015	CFMP-SV-029-SOAP	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 323562)											
VA21B8310-015	CFMP-SV-029-SOAP	titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 325029)											
VA21B8308-022	Anonymous	aluminum	7429-90-5	E440	2.0	mg/kg	58.5	53.7	8.60%	40%	----
		antimony	7440-36-0	E440	0.010	mg/kg	0.033	0.030	0.003	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.039	0.035	0.004	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	18.0	17.2	4.47%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	5.7	5.3	6.54%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0136	0.0125	0.0011	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	1520	1410	7.83%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0864	0.0852	1.35%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.126	0.122	0.004	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.051	0.048	0.003	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	8.22	7.40	10.4%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	83.4	68.9	19.0%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	0.104	0.086	0.018	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 325029) - continued											
VA21B8308-022	Anonymous	magnesium	7439-95-4	E440	2.0	mg/kg	1050	1000	5.13%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	228	224	1.72%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	0.238	0.211	12.2%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	0.79	0.76	0.04	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	1970	1900	3.64%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	7680	7560	1.65%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	16.7	16.7	0.222%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	4.83	4.67	3.32%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	0.88	0.98	9.89%	40%	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	0.13	0.12	0.009	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	12.2	11.2	8.55%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 325030)											
VA21B8308-022	Anonymous	silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0076	0.0062	0.0013	Diff <2x LOR	----
Metals (QC Lot: 325031)											
VA21B8308-022	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 325032)											
VA21B8308-022	Anonymous	titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.15	1.15	0.003	Diff <2x LOR	----
Metals (QC Lot: 325090)											
FJ2101116-001	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 325091)											
FJ2101116-001	Anonymous	aluminum	7429-90-5	E440	2.0	mg/kg	16.9	15.5	8.51%	40%	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	29.0	27.4	5.70%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	5.4	5.0	7.18%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0155	0.0154	0.00009	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	3610	3370	6.84%	60%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 325091) - continued											
FJ2101116-001	Anonymous	cesium	7440-46-2	E440	0.0050	mg/kg	0.0131	0.0124	0.0006	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.079	0.060	0.019	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	3.11	3.30	6.12%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	34.6	31.8	8.19%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	0.024	0.029	0.005	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	824	765	7.32%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	11.3	11.0	2.64%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	2.86	2.79	2.46%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	0.33	0.31	0.03	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	813	780	4.09%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	8740	8580	1.92%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	13.6	12.9	5.00%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	0.104	0.094	0.011	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	27	26	1	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	15.7	14.8	6.04%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	0.0038	0.0037	0.0002	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	0.0028	0.0029	0.00009	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	16.4	17.2	5.29%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 325094)											
VA21B8308-091	Anonymous	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 325095)											
VA21B8308-091	Anonymous	titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.28	0.60	0.32	Diff <2x LOR	----
Metals (QC Lot: 329533)											
VA21B7973-007	Anonymous	mercury	7439-97-6	E511	0.0050	mg/kg	0.0650	0.0738	12.8%	40%	----
Metals (QC Lot: 329534)											
VA21B7973-007	Anonymous	manganese	7439-96-5	E472	0.050	mg/kg	2830	2780	1.70%	40%	----
VA21B7973-007	Anonymous	aluminum	7429-90-5	E472	5.0	mg/kg	7280	7500	2.85%	40%	----
		antimony	7440-36-0	E472	0.010	mg/kg	0.252	0.273	8.19%	40%	----
		arsenic	7440-38-2	E472	0.030	mg/kg	23.8	24.9	4.59%	40%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 329534) - continued											
VA21B7973-007	Anonymous	barium	7440-39-3	E472	0.050	mg/kg	515	555	7.43%	40%	----
		beryllium	7440-41-7	E472	0.010	mg/kg	0.308	0.333	7.96%	40%	----
		bismuth	7440-69-9	E472	0.010	mg/kg	0.062	0.068	9.31%	40%	----
		boron	7440-42-8	E472	1.0	mg/kg	127	64.8	64.9%	40%	DUP-H
		cadmium	7440-43-9	E472	0.010	mg/kg	0.453	0.469	3.44%	40%	----
		calcium	7440-70-2	E472	20	mg/kg	52800	55100	4.16%	60%	----
		cesium	7440-46-2	E472	0.0050	mg/kg	0.706	0.717	1.46%	40%	----
		chromium	7440-47-3	E472	0.20	mg/kg	22.6	22.4	0.874%	40%	----
		cobalt	7440-48-4	E472	0.020	mg/kg	7.94	8.04	1.22%	40%	----
		copper	7440-50-8	E472	0.20	mg/kg	36.1	38.8	7.30%	40%	----
		iron	7439-89-6	E472	5.0	mg/kg	24900	25900	4.11%	40%	----
		lead	7439-92-1	E472	0.050	mg/kg	6.70	7.32	8.84%	40%	----
		lithium	7439-93-2	E472	0.50	mg/kg	6.89	7.08	2.82%	40%	----
		magnesium	7439-95-4	E472	2.0	mg/kg	6160	6420	4.15%	40%	----
		molybdenum	7439-98-7	E472	0.040	mg/kg	0.734	0.797	8.20%	40%	----
		nickel	7440-02-0	E472	0.20	mg/kg	24.7	24.3	1.85%	40%	----
		phosphorus	7723-14-0	E472	10	mg/kg	2330	2550	8.81%	40%	----
		potassium	7440-09-7	E472	20	mg/kg	5510	5630	2.07%	40%	----
		rubidium	7440-17-7	E472	0.050	mg/kg	7.06	7.28	2.97%	40%	----
		selenium	7782-49-2	E472	0.10	mg/kg	4.26	4.42	3.52%	40%	----
		sodium	7440-23-5	E472	20	mg/kg	400	430	7.41%	40%	----
		strontium	7440-24-6	E472	0.10	mg/kg	140	142	1.76%	60%	----
		tellurium	13494-80-9	E472	0.020	mg/kg	0.058	0.056	0.002	Diff <2x LOR	----
		thallium	7440-28-0	E472	0.0020	mg/kg	0.0480	0.0478	0.526%	40%	----
		tin	7440-31-5	E472	0.10	mg/kg	0.24	0.23	0.009	Diff <2x LOR	----
		uranium	7440-61-1	E472	0.0020	mg/kg	0.250	0.258	3.25%	40%	----
		vanadium	7440-62-2	E472	0.10	mg/kg	30.9	31.8	2.90%	40%	----
		zinc	7440-66-6	E472	1.0	mg/kg	81.4	86.2	5.73%	40%	----
		zirconium	7440-67-7	E472	0.20	mg/kg	6.45	6.37	1.22%	40%	----
Metals (QC Lot: 329535)											
VA21B8310-025	CFMP-SV-031-HUCK	silver	7440-22-4	E472.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 329536)											
VA21B8310-025	CFMP-SV-031-HUCK	titanium	7440-32-6	E472.Ti	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
Metals (QC Lot: 329697)											
VA21B8310-076	CFMP-SV-038-SOAP	aluminum	7429-90-5	E440	2.0	mg/kg	57.9	53.0	8.80%	40%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 329697) - continued											
VA21B8310-076	CFMP-SV-038-SOAP	antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.025	<0.020	0.005	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	1.88	1.71	9.17%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	7.9	7.1	10.7%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0122	0.0101	0.0021	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	997	932	6.68%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0090	0.0091	0.00008	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.072	0.067	0.005	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.045	0.040	0.005	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	5.32	4.40	19.0%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	47.3	86.0	58.0%	40%	DUP-H
		lead	7439-92-1	E440	0.020	mg/kg	0.024	<0.020	0.004	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	577	596	3.37%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	18.2	17.1	5.92%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	1.92	1.54	21.5%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	3.09	3.03	1.76%	40%	----
		phosphorus	7723-14-0	E440	10	mg/kg	1990	1920	3.39%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	11200	11600	3.19%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	6.30	6.67	5.66%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	0.121	0.098	0.024	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	6.08	5.28	14.0%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	0.18	0.15	0.02	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	12.9	11.5	11.6%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 329698)											
VA21B8310-076	CFMP-SV-038-SOAP	silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0186	0.0172	0.0014	Diff <2x LOR	----
Metals (QC Lot: 329699)											

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 329699) - continued											
VA21B8310-076	CFMP-SV-038-SOAP	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 329700)											
VA21B8310-076	CFMP-SV-038-SOAP	titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.94	3.59	19.7%	40%	----
Metals (QC Lot: 331677)											
VA21B8309-070	Anonymous	aluminum	7429-90-5	E440	2.0	mg/kg	6.3	5.7	0.6	Diff <2x LOR	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.046	0.046	0.0003	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	32.1	32.1	0.163%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	8.4	8.3	1.14%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0070	0.0082	0.0013	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	4850	4780	1.39%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0921	0.0906	1.60%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.183	0.125	0.058	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.080	0.081	0.001	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	1.61	1.57	2.61%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	92.1	92.4	0.317%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	1860	1830	1.62%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	510	510	0.0656%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	3.80	3.73	1.78%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	1700	1680	1.62%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	17000	17000	0.0882%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	8.10	8.06	0.390%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	29.8	30.0	0.748%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	0.0079	0.0079	0.00002	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 331677) - continued											
VA21B8309-070	Anonymous	zinc	7440-66-6	E440	0.50	mg/kg	18.8	19.1	1.82%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 331678)											
VA21B8309-070	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	0.0072	0.0068	0.0004	Diff <2x LOR	----
Metals (QC Lot: 331679)											
VA21B8309-070	Anonymous	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 331680)											
VA21B8309-070	Anonymous	titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.40	0.38	0.02	Diff <2x LOR	----
Metals (QC Lot: 332182)											
VA21B8310-023	CFMP-SV-031-SEDG	aluminum	7429-90-5	E440	2.0	mg/kg	3.4	3.5	0.08	Diff <2x LOR	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.021	0.022	0.0006	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	61.2	60.3	1.48%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	3.5	3.5	0.02	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0163	0.0173	0.0010	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	4020	4020	0.0730%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.148	0.147	0.754%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	1.04	1.04	0.0792%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	115	112	2.90%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	1250	1240	0.582%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	199	191	3.97%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	1.99	1.96	1.31%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	768	747	2.80%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	6090	6170	1.25%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	4.43	4.45	0.568%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	65	61	4	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	33.9	34.7	2.30%	60%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 332182) - continued											
VA21B8310-023	CFMP-SV-031-SEDG	tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	29.6	30.3	2.34%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 332183)											
VA21B8310-023	CFMP-SV-031-SEDG	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 332184)											
VA21B8310-023	CFMP-SV-031-SEDG	titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	0.25	0.002	Diff <2x LOR	----
Metals (QC Lot: 332185)											
VA21B8310-023	CFMP-SV-031-SEDG	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 335502)											
VA21B8310-085	M01 CFMP-SV-001-BLUE	aluminum	7429-90-5	E440	2.0	mg/kg	16.1	17.1	6.22%	40%	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	19.5	20.5	5.30%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	3.7	3.8	0.1	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	0.0057	0.0057	0.00001	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	1200	1340	10.4%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	2.00	2.09	4.52%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	4.84	5.72	16.6%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	14.2	15.8	10.7%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	688	730	5.85%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	191	210	9.58%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	0.544	0.576	5.86%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	0.26	0.30	0.03	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	1660	1780	6.81%	40%	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 335502) - continued											
VA21B8310-085	M01 CFMP-SV-001-BLUE	potassium	7440-09-7	E440	20	mg/kg	7010	7290	3.91%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	33.4	34.7	3.83%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	3.04	3.36	9.91%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	0.86	0.76	11.5%	40%	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	8.17	9.29	12.8%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 335503)											
VA21B8310-085	M01 CFMP-SV-001-BLUE	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 335504)											
VA21B8310-085	M01 CFMP-SV-001-BLUE	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 335505)											
VA21B8310-085	M01 CFMP-SV-001-BLUE	titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	<0.25	0	Diff <2x LOR	----
Metals (QC Lot: 335515)											
VA21B8308-081	Anonymous	aluminum	7429-90-5	E440	2.0	mg/kg	138	139	0.761%	40%	----
		antimony	7440-36-0	E440	0.010	mg/kg	0.024	0.027	0.003	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	0.031	0.031	0.0003	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	61.7	61.8	0.164%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	7.2	7.2	1.17%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	6040	6270	3.65%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.406	0.418	2.92%	40%	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.145	0.134	0.010	Diff <2x LOR	----
		cobalt	7440-48-4	E440	0.020	mg/kg	0.070	0.071	0.0010	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	8.34	8.28	0.775%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	68.0	70.8	4.12%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	0.058	0.066	0.008	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 335515) - continued											
VA21B8308-081	Anonymous	magnesium	7439-95-4	E440	2.0	mg/kg	2670	2720	2.05%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	343	328	4.33%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	0.266	0.262	1.45%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	1.06	1.07	1.23%	40%	----
		phosphorus	7723-14-0	E440	10	mg/kg	1890	1810	4.34%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	10800	10600	1.75%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	19.4	19.0	1.99%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	0.053	<0.050	0.003	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	182	182	0.0270%	40%	----
		strontium	7440-24-6	E440	0.050	mg/kg	66.7	65.4	1.93%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	0.0040	0.0040	0.00008	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	19.8	18.8	4.80%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 335516)											
VA21B8308-081	Anonymous	silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0074	0.0072	0.0002	Diff <2x LOR	----
Metals (QC Lot: 335517)											
VA21B8308-081	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	<0.0050	0.0061	0.0011	Diff <2x LOR	----
Metals (QC Lot: 335518)											
VA21B8308-081	Anonymous	titanium	7440-32-6	E440.Ti	0.25	mg/kg	0.70	0.66	0.04	Diff <2x LOR	----
Metals (QC Lot: 340308)											
VA21B8310-097	N014 CFMP-SV-014-LABT	aluminum	7429-90-5	E440	2.0	mg/kg	40.2	39.7	1.37%	40%	----
		antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		barium	7440-39-3	E440	0.050	mg/kg	64.0	59.3	7.54%	40%	----
		beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		boron	7440-42-8	E440	1.0	mg/kg	10.4	10.2	2.12%	40%	----
		cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		calcium	7440-70-2	E440	20	mg/kg	4440	4320	2.69%	60%	----
		cesium	7440-46-2	E440	0.0050	mg/kg	0.0197	0.0193	0.0004	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.050	mg/kg	0.076	0.066	0.010	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 340308) - continued											
VA21B8310-097	N014 CFMP-SV-014-LABT	cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		copper	7440-50-8	E440	0.10	mg/kg	2.81	2.78	0.762%	40%	----
		iron	7439-89-6	E440	3.0	mg/kg	52.5	50.7	3.52%	40%	----
		lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		magnesium	7439-95-4	E440	2.0	mg/kg	1270	1240	2.21%	40%	----
		manganese	7439-96-5	E440	0.050	mg/kg	1640	1620	1.12%	40%	----
		molybdenum	7439-98-7	E440	0.020	mg/kg	0.218	0.204	6.42%	40%	----
		nickel	7440-02-0	E440	0.20	mg/kg	0.38	0.38	0.006	Diff <2x LOR	----
		phosphorus	7723-14-0	E440	10	mg/kg	1720	1700	1.17%	40%	----
		potassium	7440-09-7	E440	20	mg/kg	5810	5670	2.49%	40%	----
		rubidium	7440-17-7	E440	0.050	mg/kg	6.52	6.44	1.37%	40%	----
		selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.050	mg/kg	18.0	17.4	3.69%	60%	----
		tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		zinc	7440-66-6	E440	0.50	mg/kg	25.3	24.5	3.17%	40%	----
		zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 340309)											
VA21B8310-097	N014 CFMP-SV-014-LABT	silver	7440-22-4	E440.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 340310)											
VA21B8310-097	N014 CFMP-SV-014-LABT	mercury	7439-97-6	E510	0.0050	mg/kg	0.0078	0.0075	0.0003	Diff <2x LOR	----
Metals (QC Lot: 340311)											
VA21B8310-097	N014 CFMP-SV-014-LABT	titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.77	1.55	12.9%	40%	----
Speciated Metals (QC Lot: 312724)											
VA21B8310-003	CFMP-SV-027-TEA	arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	<0.025	0	Diff <2x LOR	----
		arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----

Sub-Matrix: **Biota**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Laboratory Duplicate (DUP) Report: Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Speciated Metals (QC Lot: 312727)											
VA21B8310-057	CFMP-QAQC-2021-003-TEA	arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	<0.025	0	Diff <2x LOR	----
		arsenite [As III]	22541-54-4	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Laboratory Duplicate (DUP) Report: Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 281366)											
VA21B8310-005	CFMP-SV-027-Soil	pH (1:2 soil:water)	----	E108	0.10	pH units	5.83	5.86	0.5%	5%	----
Physical Tests (QC Lot: 281371)											
VA21B8310-067	CFMP-SV-035-Soil	pH (1:2 soil:water)	----	E108	0.10	pH units	5.45	5.47	0.4%	5%	----
Metals (QC Lot: 281364)											
VA21B8310-005	CFMP-SV-027-Soil	mercury	7439-97-6	E510	0.0050	mg/kg	0.0234	0.0217	0.0017	Diff <2x LOR	----
Metals (QC Lot: 281365)											
VA21B8310-005	CFMP-SV-027-Soil	aluminum	7429-90-5	E440	50	mg/kg	17100	15500	9.94%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	0.28	0.26	0.01	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	2.70	2.40	11.5%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	85.1	76.0	11.2%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.36	0.34	0.01	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	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	0.083	0.076	0.007	Diff <2x LOR	----
		calcium	7440-70-2	E440	50	mg/kg	3300	2840	14.9%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	22.2	19.5	12.7%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	6.64	6.21	6.63%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	5.39	4.64	14.9%	30%	----
		iron	7439-89-6	E440	50	mg/kg	27200	25000	8.29%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	6.66	6.23	6.79%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	7.5	7.1	0.5	Diff <2x LOR	----
		magnesium	7439-95-4	E440	20	mg/kg	2680	2330	13.9%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	360	322	11.1%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	0.97	0.96	0.772%	40%	----
		nickel	7440-02-0	E440	0.50	mg/kg	14.5	12.8	12.5%	30%	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 281365) - continued											
VA21B8310-005	CFMP-SV-027-Soil	phosphorus	7723-14-0	E440	50	mg/kg	832	771	7.65%	30%	----
		potassium	7440-09-7	E440	100	mg/kg	630	540	14.5%	40%	----
		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	----
		sodium	7440-23-5	E440	50	mg/kg	107	96	11	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	23.3	20.7	11.8%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.076	0.062	0.014	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	1260	1060	17.2%	40%	----
		tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.304	0.300	0.005	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.20	mg/kg	71.6	64.4	10.6%	30%	----
		zinc	7440-66-6	E440	2.0	mg/kg	80.9	74.6	8.09%	30%	----
		zirconium	7440-67-7	E440	1.0	mg/kg	2.3	2.4	0.08	Diff <2x LOR	----
Metals (QC Lot: 281369)											
VA21B8310-067	CFMP-SV-035-Soil	aluminum	7429-90-5	E440	50	mg/kg	17900	16000	11.1%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	0.34	0.23	0.11	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	4.16	3.12	28.5%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	178	151	16.4%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.42	0.39	0.03	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	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	0.073	0.073	0.00005	Diff <2x LOR	----
		calcium	7440-70-2	E440	50	mg/kg	2970	2640	11.7%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	18.5	15.7	16.3%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	7.06	6.59	6.81%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	8.57	7.45	14.0%	30%	----
		iron	7439-89-6	E440	50	mg/kg	24700	23400	5.35%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	4.95	4.47	10.2%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	8.2	8.4	0.2	Diff <2x LOR	----
		magnesium	7439-95-4	E440	20	mg/kg	4520	4580	1.42%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	1500	1380	8.18%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	0.52	0.48	7.69%	40%	----
		nickel	7440-02-0	E440	0.50	mg/kg	17.4	13.6	24.4%	30%	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 281369) - continued											
VA21B8310-067	CFMP-SV-035-Soil	phosphorus	7723-14-0	E440	50	mg/kg	548	520	5.28%	30%	----
		potassium	7440-09-7	E440	100	mg/kg	660	600	9.55%	40%	----
		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	----
		sodium	7440-23-5	E440	50	mg/kg	117	94	23	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	23.9	16.6	35.8%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.099	0.082	0.017	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	810	687	16.4%	40%	----
		tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.357	0.259	0.098	Diff <2x LOR	----
		vanadium	7440-62-2	E440	0.20	mg/kg	62.8	57.1	9.41%	30%	----
		zinc	7440-66-6	E440	2.0	mg/kg	102	94.6	7.41%	30%	----
		zirconium	7440-67-7	E440	1.0	mg/kg	1.1	<1.0	0.1	Diff <2x LOR	----
Metals (QC Lot: 281370)											
VA21B8310-067	CFMP-SV-035-Soil	mercury	7439-97-6	E510	0.0050	mg/kg	0.0225	0.0223	0.0002	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: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 310721)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 310722)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 310723)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 310724)						
moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 329537)						
moisture	----	E144-H	2	%	<2.0	----
Metals (QCLot: 323559)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 323559) - continued						
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 323560)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323561)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 323562)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 325029)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 325029) - continued						
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 325030)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 325031)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 325032)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 325090)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 325091)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 325091) - continued						
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 325094)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 325095)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 329533)						
mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 329534)						
aluminum	7429-90-5	E472	5	mg/kg	<5.0	----
antimony	7440-36-0	E472	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	----
barium	7440-39-3	E472	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	----
boron	7440-42-8	E472	1	mg/kg	<1.0	----
cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	----
calcium	7440-70-2	E472	20	mg/kg	<20	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 329534) - continued						
cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E472	0.2	mg/kg	<0.20	----
cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	----
copper	7440-50-8	E472	0.2	mg/kg	<0.20	----
iron	7439-89-6	E472	5	mg/kg	<5.0	----
lead	7439-92-1	E472	0.05	mg/kg	<0.050	----
lithium	7439-93-2	E472	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E472	2	mg/kg	<2.0	----
manganese	7439-96-5	E472	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	----
nickel	7440-02-0	E472	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E472	10	mg/kg	<10	----
potassium	7440-09-7	E472	20	mg/kg	<20	----
rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E472	0.1	mg/kg	<0.10	----
sodium	7440-23-5	E472	20	mg/kg	<20	----
strontium	7440-24-6	E472	0.1	mg/kg	<0.10	----
tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E472	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E472	1	mg/kg	<1.0	----
zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	----
Metals (QCLot: 329535)						
silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 329536)						
titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	----
Metals (QCLot: 329697)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 329697) - continued						
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 329698)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 329699)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 329700)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 331677)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 331677) - continued						
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 331678)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 331679)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 331680)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 332182)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 332183)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 332184)						

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 332184) - continued						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 332185)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 335502)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 335502) - continued						
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 335503)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 335504)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 335505)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 335515)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 335515) - continued						
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 335516)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 335517)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 335518)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 340308)						
aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
boron	7440-42-8	E440	1	mg/kg	<1.0	----
cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
calcium	7440-70-2	E440	20	mg/kg	<20	----
cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
iron	7439-89-6	E440	3	mg/kg	<3.0	----
lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
phosphorus	7723-14-0	E440	10	mg/kg	<10	----
potassium	7440-09-7	E440	20	mg/kg	<20	----
rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 340308) - continued						
sodium	7440-23-5	E440	20	mg/kg	<20	----
strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 340309)						
silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 340310)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 340311)						
titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Speciated Metals (QCLot: 312724)						
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	<0.0050	----
Speciated Metals (QCLot: 312727)						
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	<0.025	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	<0.0050	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	<0.0050	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	<0.0050	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	<0.0050	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	<0.0050	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 281364)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 281365)						
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: 281365) - 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	----
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
boron	7440-42-8	E440	5	mg/kg	<5.0	----
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
calcium	7440-70-2	E440	50	mg/kg	<50	----
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	----
lithium	7439-93-2	E440	2	mg/kg	<2.0	----
magnesium	7439-95-4	E440	20	mg/kg	<20	----
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	----
phosphorus	7723-14-0	E440	50	mg/kg	<50	----
potassium	7440-09-7	E440	100	mg/kg	<100	----
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
sodium	7440-23-5	E440	50	mg/kg	<50	----
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	----
titanium	7440-32-6	E440	1	mg/kg	<1.0	----
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
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	----
zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals (QCLot: 281369)						
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 281369) - continued						
barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
boron	7440-42-8	E440	5	mg/kg	<5.0	----
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
calcium	7440-70-2	E440	50	mg/kg	<50	----
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	----
lithium	7439-93-2	E440	2	mg/kg	<2.0	----
magnesium	7439-95-4	E440	20	mg/kg	<20	----
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	----
phosphorus	7723-14-0	E440	50	mg/kg	<50	----
potassium	7440-09-7	E440	100	mg/kg	<100	----
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
sodium	7440-23-5	E440	50	mg/kg	<50	----
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	----
titanium	7440-32-6	E440	1	mg/kg	<1.0	----
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
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	----
zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals (QCLot: 281370)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----

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: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 310721)									
moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 310722)									
moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 310723)									
moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 310724)									
moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 329537)									
moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Metals (QCLot: 323559)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	108	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	109	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	103	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	106	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	97.2	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	98.2	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	103	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	106	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	103	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	109	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	99.2	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	110	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	109	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	110	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 323559) - continued									
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	105	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	104	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	100.0	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	105	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	98.8	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	103	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	103	80.0	120	----
Metals (QCLot: 323560)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 323561)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.0	80.0	120	----
Metals (QCLot: 323562)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	103	80.0	120	----
Metals (QCLot: 325029)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	103	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	108	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	99.9	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	104	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	99.0	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	100	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	95.2	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	99.3	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	98.3	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	101	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	106	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	105	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	100	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 325029) - continued									
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	102	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	106	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	103	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	106	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	101	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	102	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	101	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	97.9	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	97.6	80.0	120	----
Metals (QCLot: 325030)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	93.7	80.0	120	----
Metals (QCLot: 325031)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	94.9	80.0	120	----
Metals (QCLot: 325032)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	103	80.0	120	----
Metals (QCLot: 325090)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	97.2	80.0	120	----
Metals (QCLot: 325091)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	102	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	99.1	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	99.3	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	97.5	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	93.7	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	99.6	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	98.5	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	101	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	105	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 325091) - continued									
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	100.0	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	104	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	104	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	103	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	99.7	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	98.5	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	96.1	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	98.1	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	92.9	80.0	120	----
Metals (QCLot: 325094)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	88.4	80.0	120	----
Metals (QCLot: 325095)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	98.9	80.0	120	----
Metals (QCLot: 329533)									
mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	98.3	80.0	120	----
Metals (QCLot: 329534)									
aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	108	80.0	120	----
antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	106	80.0	120	----
arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	106	80.0	120	----
barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	108	80.0	120	----
bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	99.3	80.0	120	----
boron	7440-42-8	E472	1	mg/kg	10 mg/kg	100	80.0	120	----
cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	102	80.0	120	----
calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	102	80.0	120	----
cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	104	80.0	120	----
chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	104	80.0	120	----
cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 329534) - continued									
copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	99.8	80.0	120	----
iron	7439-89-6	E472	5	mg/kg	10 mg/kg	102	80.0	120	----
lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	103	80.0	120	----
lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	107	80.0	120	----
magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	102	80.0	120	----
manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	108	80.0	120	----
nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	100	80.0	120	----
phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	114	80.0	120	----
potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	106	80.0	120	----
rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	99.8	80.0	120	----
sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	104	80.0	120	----
strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	105	80.0	120	----
tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	102	80.0	120	----
thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	104	80.0	120	----
tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	106	80.0	120	----
uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	104	80.0	120	----
vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	107	80.0	120	----
zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	97.6	80.0	120	----
zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	107	80.0	120	----
Metals (QCLot: 329535)									
silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	95.6	80.0	120	----
Metals (QCLot: 329536)									
titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	107	80.0	120	----
Metals (QCLot: 329697)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	93.7	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	102	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	98.4	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	90.6	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	88.7	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	93.8	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	89.0	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	92.9	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	89.4	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	91.9	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 329697) - continued									
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	89.7	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	89.6	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	90.6	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	92.8	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	93.5	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	93.9	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	91.2	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	91.5	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	115	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	92.4	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	97.8	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	91.3	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	93.8	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	105	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	91.8	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	102	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	88.7	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	93.8	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	95.2	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	99.2	80.0	120	----
Metals (QCLot: 329698)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	80.8	80.0	120	----
Metals (QCLot: 329699)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	104	80.0	120	----
Metals (QCLot: 329700)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	96.6	80.0	120	----
Metals (QCLot: 331677)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	105	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	102	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	93.9	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	101	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 331677) - continued									
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	98.9	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	102	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	100	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	101	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	106	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	102	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	99.9	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	106	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	101	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	101	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	99.6	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	101	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	97.5	80.0	120	----
Metals (QCLot: 331678)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.8	80.0	120	----
Metals (QCLot: 331679)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	90.4	80.0	120	----
Metals (QCLot: 331680)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	105	80.0	120	----
Metals (QCLot: 332182)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	102	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	103	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	104	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 332182) - continued									
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	94.0	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	102	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	98.7	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	100	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	99.5	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	102	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	101	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	110	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	107	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	105	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	100	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	102	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	101	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	104	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	105	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	108	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	104	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	104	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	97.2	80.0	120	----
Metals (QCLot: 332183)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	96.8	80.0	120	----
Metals (QCLot: 332184)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	104	80.0	120	----
Metals (QCLot: 332185)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	90.8	80.0	120	----
Metals (QCLot: 335502)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	103	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 335502) - continued									
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	101	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	100	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	98.8	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	93.1	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	99.7	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	103	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	99.0	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	100	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	100	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	103	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	100	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	106	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	100	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	99.8	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	112	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	105	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	109	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	98.9	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	100	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	102	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	95.6	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	99.8	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 335503)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	91.1	80.0	120	----
Metals (QCLot: 335504)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	96.8	80.0	120	----
Metals (QCLot: 335505)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	98.4	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 335515)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	104	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	102	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	112	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	101	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	87.2	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	99.2	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	101	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	102	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	101	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	103	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	104	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	105	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	106	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	102	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	114	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	108	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	106	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	100	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	99.6	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	100	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	99.9	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	105	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	100	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	98.2	80.0	120	----
Metals (QCLot: 335516)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	89.7	80.0	120	----
Metals (QCLot: 335517)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.0	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 335518)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	103	80.0	120	----
Metals (QCLot: 340308)									
aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	110	80.0	120	----
antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	109	80.0	120	----
arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	107	80.0	120	----
barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	110	80.0	120	----
beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	107	80.0	120	----
bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	103	80.0	120	----
boron	7440-42-8	E440	1	mg/kg	10 mg/kg	94.7	80.0	120	----
cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	106	80.0	120	----
calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	108	80.0	120	----
cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	106	80.0	120	----
chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	106	80.0	120	----
copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	104	80.0	120	----
iron	7439-89-6	E440	3	mg/kg	10 mg/kg	109	80.0	120	----
lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	107	80.0	120	----
lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	105	80.0	120	----
magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	111	80.0	120	----
manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	110	80.0	120	----
nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	105	80.0	120	----
phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	119	80.0	120	----
potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	114	80.0	120	----
rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	112	80.0	120	----
selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	105	80.0	120	----
sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	110	80.0	120	----
tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	110	80.0	120	----
thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	107	80.0	120	----
tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	107	80.0	120	----
uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	108	80.0	120	----
vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	109	80.0	120	----
zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	105	80.0	120	----
zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	106	80.0	120	----
Metals (QCLot: 340309)									
silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	97.1	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 340310)									
mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.2	80.0	120	----
Metals (QCLot: 340311)									
titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	110	80.0	120	----
Speciated Metals (QCLot: 312724)									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	0.09375 mg/kg	89.6	80.0	120	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	0.09375 mg/kg	106	70.0	130	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	0.02343 mg/kg	103	80.0	120	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	0.02343 mg/kg	105	80.0	120	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	0.02343 mg/kg	104	80.0	120	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	0.02343 mg/kg	104	80.0	120	----
Speciated Metals (QCLot: 312727)									
arsenate [As V]	17428-41-0	E539	0.025	mg/kg	0.09375 mg/kg	92.6	80.0	120	----
arsenite [As III]	22541-54-4	E539	0.005	mg/kg	0.09375 mg/kg	108	70.0	130	----
arsenobetaine [AsB], (as As)	64436-13-1	E539	0.005	mg/kg	0.02343 mg/kg	104	80.0	120	----
arsenocholine [AsC], (as As)	39895-81-3	E539	0.005	mg/kg	0.02343 mg/kg	106	80.0	120	----
dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.005	mg/kg	0.02343 mg/kg	106	80.0	120	----
monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.005	mg/kg	0.02343 mg/kg	106	80.0	120	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Physical Tests (QCLot: 281366)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Physical Tests (QCLot: 281371)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Metals (QCLot: 281364)									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	104	80.0	120	----
Metals (QCLot: 281365)									
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	107	80.0	120	----
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	98.8	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	97.6	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	100	80.0	120	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 281365) - continued									
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	98.6	80.0	120	----
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	99.5	80.0	120	----
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	99.5	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	98.7	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	100	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	96.0	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	101	80.0	120	----
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	98.7	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	99.2	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	105	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	102	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	104	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	105	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	99.5	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	104	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	97.5	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	100	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	98.5	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	100	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	101	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	102	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	104	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	103	80.0	120	----
Metals (QCLot: 281369)									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	99.5	80.0	120	----
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	# 123	80.0	120	MES
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	103	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	99.1	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	103	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	# 122	80.0	120	MES
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	95.7	80.0	120	----
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	102	80.0	120	----
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	102	80.0	120	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 281369) - continued									
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	99.5	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	98.2	80.0	120	----
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	91.9	80.0	120	----
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	113	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	95.8	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	108	80.0	120	----
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	89.7	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	98.0	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	106	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	111	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	109	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	100	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	113	80.0	120	----
strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	113	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	117	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	99.9	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	93.6	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	103	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	102	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	102	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	101	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	101	80.0	120	----
Metals (QCLot: 281370)									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	113	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

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.

Sub-Matrix: **Biota**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Speciated Metals (QCLot: 312724)										
VA21B8310-004	CFMP-SV-027-SOAP	arsenate [As V]	17428-41-0	E539	0.094 mg/kg	0.09375 mg/kg	99.5	70.0	130	----
		arsenite [As III]	22541-54-4	E539	0.0952 mg/kg	0.09375 mg/kg	100	70.0	130	----
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0234 mg/kg	0.01875 mg/kg	123	70.0	130	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0222 mg/kg	0.01875 mg/kg	117	70.0	130	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0235 mg/kg	0.01875 mg/kg	124	70.0	130	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0229 mg/kg	0.01875 mg/kg	121	70.0	130	----
Speciated Metals (QCLot: 312727)										
VA21B8310-060	CFMP-SV-002-TEA	arsenate [As V]	17428-41-0	E539	0.107 mg/kg	0.09375 mg/kg	115	70.0	130	----
		arsenite [As III]	22541-54-4	E539	0.0601 mg/kg	0.09375 mg/kg	64.5	70.0	130	SPMS
		arsenobetaine [AsB], (as As)	64436-13-1	E539	0.0222 mg/kg	0.01875 mg/kg	119	70.0	130	----
		arsenocholine [AsC], (as As)	39895-81-3	E539	0.0188 mg/kg	0.01875 mg/kg	101	70.0	130	----
		dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.0234 mg/kg	0.01875 mg/kg	126	70.0	130	----
		monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0232 mg/kg	0.01875 mg/kg	124	70.0	130	----

Qualifiers

Qualifier	*Description*
SPMS	*Matrix spike recovery outside ALS DQO for metals speciation test. Sample matrix may not support stability of indicated analyte. Species conversion of spiked analyte due to matrix is suspected.*

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: **Biota**

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 323559)									
QC-323559-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	107	70.0	130	----
QC-323559-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	96.0	70.0	130	----
QC-323559-003	RM	barium	7440-39-3	E440	4.4 mg/kg	102	70.0	130	----
QC-323559-003	RM	boron	7440-42-8	E440	9.24 mg/kg	93.9	70.0	130	----
QC-323559-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	99.2	70.0	130	----
QC-323559-003	RM	calcium	7440-70-2	E440	2360 mg/kg	104	70.0	130	----
QC-323559-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	98.2	70.0	130	----
QC-323559-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	105	70.0	130	----
QC-323559-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	102	70.0	130	----
QC-323559-003	RM	copper	7440-50-8	E440	15.7 mg/kg	99.1	70.0	130	----
QC-323559-003	RM	iron	7439-89-6	E440	318 mg/kg	104	70.0	130	----
QC-323559-003	RM	lead	7439-92-1	E440	0.231 mg/kg	100	70.0	130	----
QC-323559-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	93.3	50.0	150	----
QC-323559-003	RM	magnesium	7439-95-4	E440	910 mg/kg	96.9	70.0	130	----
QC-323559-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	97.6	70.0	130	----
QC-323559-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	98.4	70.0	130	----
QC-323559-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	84.2	70.0	130	----
QC-323559-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	96.6	70.0	130	----
QC-323559-003	RM	potassium	7440-09-7	E440	12840 mg/kg	102	70.0	130	----
QC-323559-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	102	70.0	130	----
QC-323559-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	105	70.0	130	----
QC-323559-003	RM	sodium	7440-23-5	E440	14000 mg/kg	101	70.0	130	----
QC-323559-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	93.4	70.0	130	----
QC-323559-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	101	70.0	130	----
QC-323559-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	95.8	70.0	130	----
QC-323559-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	102	70.0	130	----
QC-323559-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	110	70.0	130	----
Metals (QCLot: 323560)									
QC-323560-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	109	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 323561)									
QC-323561-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	94.1	70.0	130	----
Metals (QCLot: 323562)									
QC-323562-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	98.9	70.0	130	----
Metals (QCLot: 325029)									
QC-325029-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	105	70.0	130	----
QC-325029-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	96.1	70.0	130	----
QC-325029-003	RM	barium	7440-39-3	E440	4.4 mg/kg	106	70.0	130	----
QC-325029-003	RM	boron	7440-42-8	E440	9.24 mg/kg	94.3	70.0	130	----
QC-325029-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	98.6	70.0	130	----
QC-325029-003	RM	calcium	7440-70-2	E440	2360 mg/kg	107	70.0	130	----
QC-325029-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	91.0	70.0	130	----
QC-325029-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	111	70.0	130	----
QC-325029-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	97.0	70.0	130	----
QC-325029-003	RM	copper	7440-50-8	E440	15.7 mg/kg	98.2	70.0	130	----
QC-325029-003	RM	iron	7439-89-6	E440	318 mg/kg	108	70.0	130	----
QC-325029-003	RM	lead	7439-92-1	E440	0.231 mg/kg	103	70.0	130	----
QC-325029-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	91.3	50.0	150	----
QC-325029-003	RM	magnesium	7439-95-4	E440	910 mg/kg	97.8	70.0	130	----
QC-325029-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	100	70.0	130	----
QC-325029-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	97.1	70.0	130	----
QC-325029-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	98.9	70.0	130	----
QC-325029-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	94.1	70.0	130	----
QC-325029-003	RM	potassium	7440-09-7	E440	12840 mg/kg	100	70.0	130	----
QC-325029-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	105	70.0	130	----
QC-325029-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	107	70.0	130	----
QC-325029-003	RM	sodium	7440-23-5	E440	14000 mg/kg	100	70.0	130	----
QC-325029-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	97.2	70.0	130	----
QC-325029-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	96.0	70.0	130	----
QC-325029-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	109	70.0	130	----
QC-325029-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	104	70.0	130	----
QC-325029-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	105	70.0	130	----
Metals (QCLot: 325030)									
QC-325030-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	103	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 325031)									
QC-325031-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	93.4	70.0	130	----
Metals (QCLot: 325032)									
QC-325032-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	112	70.0	130	----
Metals (QCLot: 325090)									
QC-325090-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	98.5	70.0	130	----
Metals (QCLot: 325091)									
QC-325091-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	104	70.0	130	----
QC-325091-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	95.7	70.0	130	----
QC-325091-003	RM	barium	7440-39-3	E440	4.4 mg/kg	101	70.0	130	----
QC-325091-003	RM	boron	7440-42-8	E440	9.24 mg/kg	96.9	70.0	130	----
QC-325091-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	97.2	70.0	130	----
QC-325091-003	RM	calcium	7440-70-2	E440	2360 mg/kg	112	70.0	130	----
QC-325091-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	87.7	70.0	130	----
QC-325091-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	104	70.0	130	----
QC-325091-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	96.6	70.0	130	----
QC-325091-003	RM	copper	7440-50-8	E440	15.7 mg/kg	95.9	70.0	130	----
QC-325091-003	RM	iron	7439-89-6	E440	318 mg/kg	105	70.0	130	----
QC-325091-003	RM	lead	7439-92-1	E440	0.231 mg/kg	105	70.0	130	----
QC-325091-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	94.2	50.0	150	----
QC-325091-003	RM	magnesium	7439-95-4	E440	910 mg/kg	94.0	70.0	130	----
QC-325091-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	97.2	70.0	130	----
QC-325091-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	92.8	70.0	130	----
QC-325091-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	93.2	70.0	130	----
QC-325091-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	89.8	70.0	130	----
QC-325091-003	RM	potassium	7440-09-7	E440	12840 mg/kg	97.1	70.0	130	----
QC-325091-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	102	70.0	130	----
QC-325091-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	101	70.0	130	----
QC-325091-003	RM	sodium	7440-23-5	E440	14000 mg/kg	101	70.0	130	----
QC-325091-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	97.6	70.0	130	----
QC-325091-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	89.7	70.0	130	----
QC-325091-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	102	70.0	130	----
QC-325091-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	100	70.0	130	----
QC-325091-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	105	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 325094)									
QC-325094-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	105	70.0	130	----
Metals (QCLot: 325095)									
QC-325095-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	102	70.0	130	----
Metals (QCLot: 329533)									
QC-329533-003	RM	mercury	7439-97-6	E511	0.322 mg/kg	110	70.0	130	----
Metals (QCLot: 329534)									
QC-329534-003	RM	aluminum	7429-90-5	E472	1280 mg/kg	125	70.0	130	----
QC-329534-003	RM	arsenic	7440-38-2	E472	6.87 mg/kg	108	70.0	130	----
QC-329534-003	RM	barium	7440-39-3	E472	4.4 mg/kg	118	70.0	130	----
QC-329534-003	RM	boron	7440-42-8	E472	9.24 mg/kg	99.1	70.0	130	----
QC-329534-003	RM	cadmium	7440-43-9	E472	0.299 mg/kg	108	70.0	130	----
QC-329534-003	RM	calcium	7440-70-2	E472	2360 mg/kg	106	70.0	130	----
QC-329534-003	RM	cesium	7440-46-2	E472	0.078 mg/kg	102	70.0	130	----
QC-329534-003	RM	chromium	7440-47-3	E472	1.58 mg/kg	116	70.0	130	----
QC-329534-003	RM	cobalt	7440-48-4	E472	0.25 mg/kg	112	70.0	130	----
QC-329534-003	RM	copper	7440-50-8	E472	15.7 mg/kg	104	70.0	130	----
QC-329534-003	RM	iron	7439-89-6	E472	318 mg/kg	111	70.0	130	----
QC-329534-003	RM	lead	7439-92-1	E472	0.231 mg/kg	116	70.0	130	----
QC-329534-003	RM	lithium	7439-93-2	E472	1.21 mg/kg	101	50.0	150	----
QC-329534-003	RM	magnesium	7439-95-4	E472	910 mg/kg	102	70.0	130	----
QC-329534-003	RM	manganese	7439-96-5	E472	3.17 mg/kg	108	70.0	130	----
QC-329534-003	RM	molybdenum	7439-98-7	E472	0.29 mg/kg	104	70.0	130	----
QC-329534-003	RM	nickel	7440-02-0	E472	1.34 mg/kg	109	70.0	130	----
QC-329534-003	RM	phosphorus	7723-14-0	E472	8000 mg/kg	111	70.0	130	----
QC-329534-003	RM	potassium	7440-09-7	E472	12840 mg/kg	110	70.0	130	----
QC-329534-003	RM	rubidium	7440-17-7	E472	5.59 mg/kg	110	70.0	130	----
QC-329534-003	RM	selenium	7782-49-2	E472	3.45 mg/kg	114	70.0	130	----
QC-329534-003	RM	sodium	7440-23-5	E472	14000 mg/kg	112	70.0	130	----
QC-329534-003	RM	strontium	7440-24-6	E472	10.1 mg/kg	98.3	70.0	130	----
QC-329534-003	RM	thallium	7440-28-0	E472	0.0093 mg/kg	112	70.0	130	----
QC-329534-003	RM	uranium	7440-61-1	E472	0.0481 mg/kg	100	70.0	130	----
QC-329534-003	RM	vanadium	7440-62-2	E472	1.48 mg/kg	113	70.0	130	----
QC-329534-003	RM	zinc	7440-66-6	E472	46.2 mg/kg	115	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 329535)									
QC-329535-003	RM	silver	7440-22-4	E472.Ag	0.0252 mg/kg	113	70.0	130	----
Metals (QCLot: 329536)									
QC-329536-003	RM	titanium	7440-32-6	E472.Ti	5.88 mg/kg	97.3	70.0	130	----
Metals (QCLot: 329697)									
QC-329697-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	99.8	70.0	130	----
QC-329697-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	93.5	70.0	130	----
QC-329697-003	RM	barium	7440-39-3	E440	4.4 mg/kg	104	70.0	130	----
QC-329697-003	RM	boron	7440-42-8	E440	9.24 mg/kg	83.7	70.0	130	----
QC-329697-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	96.5	70.0	130	----
QC-329697-003	RM	calcium	7440-70-2	E440	2360 mg/kg	99.6	70.0	130	----
QC-329697-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	86.1	70.0	130	----
QC-329697-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	98.3	70.0	130	----
QC-329697-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	92.5	70.0	130	----
QC-329697-003	RM	copper	7440-50-8	E440	15.7 mg/kg	93.7	70.0	130	----
QC-329697-003	RM	iron	7439-89-6	E440	318 mg/kg	101	70.0	130	----
QC-329697-003	RM	lead	7439-92-1	E440	0.231 mg/kg	93.4	70.0	130	----
QC-329697-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	84.3	50.0	150	----
QC-329697-003	RM	magnesium	7439-95-4	E440	910 mg/kg	91.1	70.0	130	----
QC-329697-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	89.9	70.0	130	----
QC-329697-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	90.7	70.0	130	----
QC-329697-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	88.5	70.0	130	----
QC-329697-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	97.1	70.0	130	----
QC-329697-003	RM	potassium	7440-09-7	E440	12840 mg/kg	92.9	70.0	130	----
QC-329697-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	102	70.0	130	----
QC-329697-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	97.4	70.0	130	----
QC-329697-003	RM	sodium	7440-23-5	E440	14000 mg/kg	95.6	70.0	130	----
QC-329697-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	91.8	70.0	130	----
QC-329697-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	74.0	70.0	130	----
QC-329697-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	93.4	70.0	130	----
QC-329697-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	97.7	70.0	130	----
QC-329697-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	110	70.0	130	----
Metals (QCLot: 329698)									
QC-329698-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	96.9	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 329699)									
QC-329699-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	105	70.0	130	----
Metals (QCLot: 329700)									
QC-329700-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	95.0	70.0	130	----
Metals (QCLot: 331677)									
QC-331677-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	101	70.0	130	----
QC-331677-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	95.3	70.0	130	----
QC-331677-003	RM	barium	7440-39-3	E440	4.4 mg/kg	98.0	70.0	130	----
QC-331677-003	RM	boron	7440-42-8	E440	9.24 mg/kg	84.9	70.0	130	----
QC-331677-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	96.8	70.0	130	----
QC-331677-003	RM	calcium	7440-70-2	E440	2360 mg/kg	97.7	70.0	130	----
QC-331677-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	84.7	70.0	130	----
QC-331677-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	106	70.0	130	----
QC-331677-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	96.7	70.0	130	----
QC-331677-003	RM	copper	7440-50-8	E440	15.7 mg/kg	95.7	70.0	130	----
QC-331677-003	RM	iron	7439-89-6	E440	318 mg/kg	99.6	70.0	130	----
QC-331677-003	RM	lead	7439-92-1	E440	0.231 mg/kg	92.1	70.0	130	----
QC-331677-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	84.9	50.0	150	----
QC-331677-003	RM	magnesium	7439-95-4	E440	910 mg/kg	93.0	70.0	130	----
QC-331677-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	95.4	70.0	130	----
QC-331677-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	89.8	70.0	130	----
QC-331677-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	102	70.0	130	----
QC-331677-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	89.1	70.0	130	----
QC-331677-003	RM	potassium	7440-09-7	E440	12840 mg/kg	94.2	70.0	130	----
QC-331677-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	98.7	70.0	130	----
QC-331677-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	97.9	70.0	130	----
QC-331677-003	RM	sodium	7440-23-5	E440	14000 mg/kg	98.4	70.0	130	----
QC-331677-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	86.8	70.0	130	----
QC-331677-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	92.0	70.0	130	----
QC-331677-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	87.8	70.0	130	----
QC-331677-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	95.2	70.0	130	----
QC-331677-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	107	70.0	130	----
Metals (QCLot: 331678)									
QC-331678-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	105	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%): RM	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 331679)									
QC-331679-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	98.0	70.0	130	----
Metals (QCLot: 331680)									
QC-331680-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	82.6	70.0	130	----
Metals (QCLot: 332182)									
QC-332182-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	100	70.0	130	----
QC-332182-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	95.7	70.0	130	----
QC-332182-003	RM	barium	7440-39-3	E440	4.4 mg/kg	97.5	70.0	130	----
QC-332182-003	RM	boron	7440-42-8	E440	9.24 mg/kg	86.0	70.0	130	----
QC-332182-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	104	70.0	130	----
QC-332182-003	RM	calcium	7440-70-2	E440	2360 mg/kg	104	70.0	130	----
QC-332182-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	87.8	70.0	130	----
QC-332182-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	102	70.0	130	----
QC-332182-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	94.6	70.0	130	----
QC-332182-003	RM	copper	7440-50-8	E440	15.7 mg/kg	96.6	70.0	130	----
QC-332182-003	RM	iron	7439-89-6	E440	318 mg/kg	98.9	70.0	130	----
QC-332182-003	RM	lead	7439-92-1	E440	0.231 mg/kg	97.0	70.0	130	----
QC-332182-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	88.0	50.0	150	----
QC-332182-003	RM	magnesium	7439-95-4	E440	910 mg/kg	96.0	70.0	130	----
QC-332182-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	96.5	70.0	130	----
QC-332182-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	97.8	70.0	130	----
QC-332182-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	92.4	70.0	130	----
QC-332182-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	91.0	70.0	130	----
QC-332182-003	RM	potassium	7440-09-7	E440	12840 mg/kg	95.0	70.0	130	----
QC-332182-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	99.7	70.0	130	----
QC-332182-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	99.6	70.0	130	----
QC-332182-003	RM	sodium	7440-23-5	E440	14000 mg/kg	97.5	70.0	130	----
QC-332182-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	89.6	70.0	130	----
QC-332182-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	91.6	70.0	130	----
QC-332182-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	99.6	70.0	130	----
QC-332182-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	96.2	70.0	130	----
QC-332182-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	112	70.0	130	----
Metals (QCLot: 332183)									
QC-332183-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	97.9	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 332184)									
QC-332184-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	91.8	70.0	130	----
Metals (QCLot: 332185)									
QC-332185-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	105	70.0	130	----
Metals (QCLot: 335502)									
QC-335502-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	106	70.0	130	----
QC-335502-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	98.6	70.0	130	----
QC-335502-003	RM	barium	7440-39-3	E440	4.4 mg/kg	112	70.0	130	----
QC-335502-003	RM	boron	7440-42-8	E440	9.24 mg/kg	90.8	70.0	130	----
QC-335502-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	100	70.0	130	----
QC-335502-003	RM	calcium	7440-70-2	E440	2360 mg/kg	108	70.0	130	----
QC-335502-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	91.0	70.0	130	----
QC-335502-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	104	70.0	130	----
QC-335502-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	101	70.0	130	----
QC-335502-003	RM	copper	7440-50-8	E440	15.7 mg/kg	99.1	70.0	130	----
QC-335502-003	RM	iron	7439-89-6	E440	318 mg/kg	108	70.0	130	----
QC-335502-003	RM	lead	7439-92-1	E440	0.231 mg/kg	103	70.0	130	----
QC-335502-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	91.4	50.0	150	----
QC-335502-003	RM	magnesium	7439-95-4	E440	910 mg/kg	96.9	70.0	130	----
QC-335502-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	100	70.0	130	----
QC-335502-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	94.0	70.0	130	----
QC-335502-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	95.4	70.0	130	----
QC-335502-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	102	70.0	130	----
QC-335502-003	RM	potassium	7440-09-7	E440	12840 mg/kg	99.8	70.0	130	----
QC-335502-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	103	70.0	130	----
QC-335502-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	112	70.0	130	----
QC-335502-003	RM	sodium	7440-23-5	E440	14000 mg/kg	99.1	70.0	130	----
QC-335502-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	95.5	70.0	130	----
QC-335502-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	101	70.0	130	----
QC-335502-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	103	70.0	130	----
QC-335502-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	102	70.0	130	----
QC-335502-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	110	70.0	130	----
Metals (QCLot: 335503)									
QC-335503-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	111	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 335504)									
QC-335504-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	104	70.0	130	----
Metals (QCLot: 335505)									
QC-335505-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	113	70.0	130	----
Metals (QCLot: 335515)									
QC-335515-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	109	70.0	130	----
QC-335515-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	99.5	70.0	130	----
QC-335515-003	RM	barium	7440-39-3	E440	4.4 mg/kg	110	70.0	130	----
QC-335515-003	RM	boron	7440-42-8	E440	9.24 mg/kg	88.3	70.0	130	----
QC-335515-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	99.0	70.0	130	----
QC-335515-003	RM	calcium	7440-70-2	E440	2360 mg/kg	105	70.0	130	----
QC-335515-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	93.4	70.0	130	----
QC-335515-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	109	70.0	130	----
QC-335515-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	102	70.0	130	----
QC-335515-003	RM	copper	7440-50-8	E440	15.7 mg/kg	101	70.0	130	----
QC-335515-003	RM	iron	7439-89-6	E440	318 mg/kg	108	70.0	130	----
QC-335515-003	RM	lead	7439-92-1	E440	0.231 mg/kg	98.4	70.0	130	----
QC-335515-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	96.6	50.0	150	----
QC-335515-003	RM	magnesium	7439-95-4	E440	910 mg/kg	99.4	70.0	130	----
QC-335515-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	98.2	70.0	130	----
QC-335515-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	97.7	70.0	130	----
QC-335515-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	103	70.0	130	----
QC-335515-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	103	70.0	130	----
QC-335515-003	RM	potassium	7440-09-7	E440	12840 mg/kg	105	70.0	130	----
QC-335515-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	105	70.0	130	----
QC-335515-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	110	70.0	130	----
QC-335515-003	RM	sodium	7440-23-5	E440	14000 mg/kg	99.0	70.0	130	----
QC-335515-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	90.8	70.0	130	----
QC-335515-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	101	70.0	130	----
QC-335515-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	97.0	70.0	130	----
QC-335515-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	105	70.0	130	----
QC-335515-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	113	70.0	130	----
Metals (QCLot: 335516)									
QC-335516-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	104	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 335517)									
QC-335517-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	92.3	70.0	130	----
Metals (QCLot: 335518)									
QC-335518-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	93.3	70.0	130	----
Metals (QCLot: 340308)									
QC-340308-003	RM	aluminum	7429-90-5	E440	1280 mg/kg	112	70.0	130	----
QC-340308-003	RM	arsenic	7440-38-2	E440	6.87 mg/kg	100	70.0	130	----
QC-340308-003	RM	barium	7440-39-3	E440	4.4 mg/kg	110	70.0	130	----
QC-340308-003	RM	boron	7440-42-8	E440	9.24 mg/kg	93.8	70.0	130	----
QC-340308-003	RM	cadmium	7440-43-9	E440	0.299 mg/kg	104	70.0	130	----
QC-340308-003	RM	calcium	7440-70-2	E440	2360 mg/kg	114	70.0	130	----
QC-340308-003	RM	cesium	7440-46-2	E440	0.078 mg/kg	104	70.0	130	----
QC-340308-003	RM	chromium	7440-47-3	E440	1.58 mg/kg	111	70.0	130	----
QC-340308-003	RM	cobalt	7440-48-4	E440	0.25 mg/kg	104	70.0	130	----
QC-340308-003	RM	copper	7440-50-8	E440	15.7 mg/kg	101	70.0	130	----
QC-340308-003	RM	iron	7439-89-6	E440	318 mg/kg	111	70.0	130	----
QC-340308-003	RM	lead	7439-92-1	E440	0.231 mg/kg	115	70.0	130	----
QC-340308-003	RM	lithium	7439-93-2	E440	1.21 mg/kg	100	50.0	150	----
QC-340308-003	RM	magnesium	7439-95-4	E440	910 mg/kg	103	70.0	130	----
QC-340308-003	RM	manganese	7439-96-5	E440	3.17 mg/kg	102	70.0	130	----
QC-340308-003	RM	molybdenum	7439-98-7	E440	0.29 mg/kg	102	70.0	130	----
QC-340308-003	RM	nickel	7440-02-0	E440	1.34 mg/kg	101	70.0	130	----
QC-340308-003	RM	phosphorus	7723-14-0	E440	8000 mg/kg	108	70.0	130	----
QC-340308-003	RM	potassium	7440-09-7	E440	12840 mg/kg	106	70.0	130	----
QC-340308-003	RM	rubidium	7440-17-7	E440	5.59 mg/kg	106	70.0	130	----
QC-340308-003	RM	selenium	7782-49-2	E440	3.45 mg/kg	106	70.0	130	----
QC-340308-003	RM	sodium	7440-23-5	E440	14000 mg/kg	101	70.0	130	----
QC-340308-003	RM	strontium	7440-24-6	E440	10.1 mg/kg	103	70.0	130	----
QC-340308-003	RM	thallium	7440-28-0	E440	0.0093 mg/kg	107	70.0	130	----
QC-340308-003	RM	uranium	7440-61-1	E440	0.0481 mg/kg	117	70.0	130	----
QC-340308-003	RM	vanadium	7440-62-2	E440	1.48 mg/kg	107	70.0	130	----
QC-340308-003	RM	zinc	7440-66-6	E440	46.2 mg/kg	117	70.0	130	----
Metals (QCLot: 340309)									
QC-340309-003	RM	silver	7440-22-4	E440.Ag	0.0252 mg/kg	118	70.0	130	----

Sub-Matrix: **Biota**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 340310)									
QC-340310-003	RM	mercury	7439-97-6	E510	0.322 mg/kg	105	70.0	130	----
Metals (QCLot: 340311)									
QC-340311-003	RM	titanium	7440-32-6	E440.Ti	5.88 mg/kg	118	70.0	130	----
Speciated Metals (QCLot: 312724)									
QC-312724-005	NIST 1568b	arsenate [As V]	17428-41-0	E539	0.0282 mg/kg	130	70.0	130	----
QC-312724-005	NIST 1568b	arsenite [As III]	22541-54-4	E539	0.0575 mg/kg	112	70.0	130	----
QC-312724-005	NIST 1568b	dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.169 mg/kg	89.4	70.0	130	----
QC-312724-005	NIST 1568b	monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0109 mg/kg	96.6	70.0	130	----
Speciated Metals (QCLot: 312727)									
QC-312727-005	NIST 1568b	arsenate [As V]	17428-41-0	E539	0.0282 mg/kg	130	70.0	130	----
QC-312727-005	NIST 1568b	arsenite [As III]	22541-54-4	E539	0.0575 mg/kg	112	70.0	130	----
QC-312727-005	NIST 1568b	dimethylarsinic acid [DMA], (as As)	75-60-5	E539	0.169 mg/kg	89.4	70.0	130	----
QC-312727-005	NIST 1568b	monomethylarsonic acid [MMA], (as As)	2163-80-6	E539	0.0109 mg/kg	96.6	70.0	130	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 281364)									
QC-281364-003	SCP SS-2	mercury	7439-97-6	E510	0.059 mg/kg	98.9	70.0	130	----
Metals (QCLot: 281365)									
QC-281365-003	SCP SS-2	aluminum	7429-90-5	E440	9817 mg/kg	109	70.0	130	----
QC-281365-003	SCP SS-2	antimony	7440-36-0	E440	3.99 mg/kg	100	70.0	130	----
QC-281365-003	SCP SS-2	arsenic	7440-38-2	E440	3.73 mg/kg	108	70.0	130	----
QC-281365-003	SCP SS-2	barium	7440-39-3	E440	105 mg/kg	104	70.0	130	----
QC-281365-003	SCP SS-2	beryllium	7440-41-7	E440	0.349 mg/kg	108	70.0	130	----
QC-281365-003	SCP SS-2	boron	7440-42-8	E440	8.5 mg/kg	129	40.0	160	----
QC-281365-003	SCP SS-2	cadmium	7440-43-9	E440	0.91 mg/kg	109	70.0	130	----
QC-281365-003	SCP SS-2	calcium	7440-70-2	E440	31082 mg/kg	109	70.0	130	----
QC-281365-003	SCP SS-2	chromium	7440-47-3	E440	101 mg/kg	108	70.0	130	----
QC-281365-003	SCP SS-2	cobalt	7440-48-4	E440	6.9 mg/kg	102	70.0	130	----
QC-281365-003	SCP SS-2	copper	7440-50-8	E440	123 mg/kg	100	70.0	130	----
QC-281365-003	SCP SS-2	iron	7439-89-6	E440	23558 mg/kg	105	70.0	130	----
QC-281365-003	SCP SS-2	lead	7439-92-1	E440	267 mg/kg	98.4	70.0	130	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 281365) - continued									
QC-281365-003	SCP SS-2	lithium	7439-93-2	E440	9.5 mg/kg	108	70.0	130	----
QC-281365-003	SCP SS-2	magnesium	7439-95-4	E440	5509 mg/kg	102	70.0	130	----
QC-281365-003	SCP SS-2	manganese	7439-96-5	E440	269 mg/kg	106	70.0	130	----
QC-281365-003	SCP SS-2	molybdenum	7439-98-7	E440	1.03 mg/kg	110	70.0	130	----
QC-281365-003	SCP SS-2	nickel	7440-02-0	E440	26.7 mg/kg	102	70.0	130	----
QC-281365-003	SCP SS-2	phosphorus	7723-14-0	E440	752 mg/kg	113	70.0	130	----
QC-281365-003	SCP SS-2	potassium	7440-09-7	E440	1587 mg/kg	111	70.0	130	----
QC-281365-003	SCP SS-2	sodium	7440-23-5	E440	797 mg/kg	105	70.0	130	----
QC-281365-003	SCP SS-2	strontium	7440-24-6	E440	86.1 mg/kg	107	70.0	130	----
QC-281365-003	SCP SS-2	thallium	7440-28-0	E440	0.0786 mg/kg	99.8	40.0	160	----
QC-281365-003	SCP SS-2	tin	7440-31-5	E440	10.6 mg/kg	100	70.0	130	----
QC-281365-003	SCP SS-2	titanium	7440-32-6	E440	839 mg/kg	117	70.0	130	----
QC-281365-003	SCP SS-2	uranium	7440-61-1	E440	0.52 mg/kg	108	70.0	130	----
QC-281365-003	SCP SS-2	vanadium	7440-62-2	E440	32.7 mg/kg	106	70.0	130	----
QC-281365-003	SCP SS-2	zinc	7440-66-6	E440	297 mg/kg	104	70.0	130	----
QC-281365-003	SCP SS-2	zirconium	7440-67-7	E440	5.73 mg/kg	103	70.0	130	----
Metals (QCLot: 281369)									
QC-281369-003	SCP SS-2	aluminum	7429-90-5	E440	9817 mg/kg	114	70.0	130	----
QC-281369-003	SCP SS-2	antimony	7440-36-0	E440	3.99 mg/kg	100	70.0	130	----
QC-281369-003	SCP SS-2	arsenic	7440-38-2	E440	3.73 mg/kg	99.5	70.0	130	----
QC-281369-003	SCP SS-2	barium	7440-39-3	E440	105 mg/kg	99.6	70.0	130	----
QC-281369-003	SCP SS-2	beryllium	7440-41-7	E440	0.349 mg/kg	106	70.0	130	----
QC-281369-003	SCP SS-2	boron	7440-42-8	E440	8.5 mg/kg	118	40.0	160	----
QC-281369-003	SCP SS-2	cadmium	7440-43-9	E440	0.91 mg/kg	94.9	70.0	130	----
QC-281369-003	SCP SS-2	calcium	7440-70-2	E440	31082 mg/kg	110	70.0	130	----
QC-281369-003	SCP SS-2	chromium	7440-47-3	E440	101 mg/kg	108	70.0	130	----
QC-281369-003	SCP SS-2	cobalt	7440-48-4	E440	6.9 mg/kg	99.7	70.0	130	----
QC-281369-003	SCP SS-2	copper	7440-50-8	E440	123 mg/kg	94.4	70.0	130	----
QC-281369-003	SCP SS-2	iron	7439-89-6	E440	23558 mg/kg	99.6	70.0	130	----
QC-281369-003	SCP SS-2	lead	7439-92-1	E440	267 mg/kg	114	70.0	130	----
QC-281369-003	SCP SS-2	lithium	7439-93-2	E440	9.5 mg/kg	101	70.0	130	----
QC-281369-003	SCP SS-2	magnesium	7439-95-4	E440	5509 mg/kg	105	70.0	130	----

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%): RM	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 281369) - continued									
QC-281369-003	SCP SS-2	manganese	7439-96-5	E440	269 mg/kg	92.8	70.0	130	----
QC-281369-003	SCP SS-2	molybdenum	7439-98-7	E440	1.03 mg/kg	100	70.0	130	----
QC-281369-003	SCP SS-2	nickel	7440-02-0	E440	26.7 mg/kg	98.1	70.0	130	----
QC-281369-003	SCP SS-2	phosphorus	7723-14-0	E440	752 mg/kg	96.8	70.0	130	----
QC-281369-003	SCP SS-2	potassium	7440-09-7	E440	1587 mg/kg	112	70.0	130	----
QC-281369-003	SCP SS-2	sodium	7440-23-5	E440	797 mg/kg	106	70.0	130	----
QC-281369-003	SCP SS-2	strontium	7440-24-6	E440	86.1 mg/kg	107	70.0	130	----
QC-281369-003	SCP SS-2	thallium	7440-28-0	E440	0.0786 mg/kg	98.4	40.0	160	----
QC-281369-003	SCP SS-2	tin	7440-31-5	E440	10.6 mg/kg	105	70.0	130	----
QC-281369-003	SCP SS-2	titanium	7440-32-6	E440	839 mg/kg	109	70.0	130	----
QC-281369-003	SCP SS-2	uranium	7440-61-1	E440	0.52 mg/kg	103	70.0	130	----
QC-281369-003	SCP SS-2	vanadium	7440-62-2	E440	32.7 mg/kg	104	70.0	130	----
QC-281369-003	SCP SS-2	zinc	7440-66-6	E440	297 mg/kg	100	70.0	130	----
QC-281369-003	SCP SS-2	zirconium	7440-67-7	E440	5.73 mg/kg	94.2	70.0	130	----
Metals (QCLot: 281370)									
QC-281370-003	SCP SS-2	mercury	7439-97-6	E510	0.059 mg/kg	105	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM 0100 - 002.

ALS www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Environmental Division Vancouver
Work Order Reference
VA21B8310

Telephone : +1 604 253 4188

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax nicole.bishop@erm.com
Email 2 lshelley@entiaenviro.com
Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax
Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minim
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minin
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minin
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minin
☐ Same day [E2] if received by 10am M-S - 200% rush surcharg
Additional fees may apply to rush requests on weeken
Date and Time Required for all E&P TATs:
For all tests with rush TATs requested, please

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):
ALS Contact: Amber Springer
Sampler: J. ATKINS

Analysis Re

Indicate Filtered (F), Preserved (P) or Filtered a

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQU	SUSPECTED HAZARD (see n
	CFMP-SV-027-WILL	14-AUG-21	11:00	VEG	1		✓			
	" -SEDG				1		✓			
	" -TEA				1		✓			
	" -SOAP				1		✓			
	" -SOIL			SOIL	1	✓				
	- BLUE	"	"	BERRY	1		✓			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO
Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15.6			

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: JL	Date: 20 Aug	Time: 10:20 am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 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.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM-0100-002.

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	~~Company address below will appear on the final report~~
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CEMP ~~CEMP~~ SV-028-WILL	10-AUG-21	09:00	VEG	1		✓			
	" " " - SEDG	↓	↓	VEG	1		✓			
	" " " - BLUE			BERRY	1		✓			
	" " " -SOILU			SOIL	1	✓				
	" " " -SOILW			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			15 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: JH	Date: 20 Aug	Time: 10:20 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 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**.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21-ERM0100-002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	~~Company address below will appear on the final report~~
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

~~Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX~~

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-025-WILL	13-AUG 21	8:45	VEG	1		✓			
	-SEDGE	↓	↓	VEG	1		✓			
	-TEA			VEG	1		✓			
	-SOAP			BERRY	1		✓			
	-SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug 21	Time: 10:20AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 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.

Samples in freezer until Aug 24

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 -ERMO100-002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	~~Company address below will appear on the final report~~
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CEMP-SV-030-WILL	10:45	13 Aug 21	VOC	1		✓			
	" SEDG	↓	↓	VOC	1		✓			
	" TEA			VOC	1		✓			
	" SOAP			BOREX	1		✓			
	" SOIL	↓	↓	SOIL	1	✓	✓			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15			

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: JG	Date: 25 Aug 21	Time: 10:25 AM

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Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 coolers

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Contact:	Nicole Bishop
Phone:	604-319-9352
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Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

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Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

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AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#: n/a
Major/Minor Code:	Routing Code: n/a
Requisitioner: n/a	
Location: n/a	

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CEMP-SV-031-WILL	13-AUG-21	4:00	VEG					
	" SEDG	↓	↓	VEG					
	" TEA			VEG					
	" MILK			BERRY					
	" SOIL			SOIL					

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C		
				15 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: JG	Date: 25 Aug	Time: 10:40 AM

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Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100 - 002.

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 coolers

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Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Tumaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
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Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-032-WILL	12 AUG 21	8:20	VEG	1		✓			
	" SEDGE				1		✓			
	" TEA				1		✓			
	" HUCK			BERRY	1		✓			
	" SOIL4			SOIL	1	✓				
	" SOILW					✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug 21	Time: 10:15 AM

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Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM-0100-002-

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
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Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

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AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#: n/a
Major/Minor Code:	Routing Code: n/a
Requisitioner: n/a	
Location: n/a	

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	CFMP-SV-033-WILL	18-AUG-21	15:30	VEG	1		✓			
	" " " - SEDG	↓	↓	VEG	1		✓			
	" " " - TEA			VEG	1		✓			
	" " " - HUCK.			BERRY	1		✓			
	" " " - SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug	Time: 10:25 AM

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Samples in freezer until Aug 21

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COC Number: 21 - ERM0100-002

Canada Toll Free: 1 800 668 9878

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Invoice To	Same as Report To ☑ YES ☐ NO
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Reports / Recipients

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Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: ~~[illegible]~~ J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

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	CFMP-SV-034 - WILL	16-AUG-21	800	VEG	1		✓			
	- SEDG	↓	↓	VEG	1		✓			
	- TEA	↓	↓	VEG	1		✓			
	- HUCK	↓	↓	BERRY	1		✓			
	- SOIL	↓	↓	SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

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Are samples for human consumption/ use? ☐ YES ☑ NO

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SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 C			

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Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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Email 2

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☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a
ALS Lab Work Order # (ALS use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		
ALS Contact:	Amber Springer	Sampler:	~~[illegible]~~ J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	CFMP-QAQC-2021-001-WILL	10-AUG-21	14:15	VEG	1		✓			
	" " " " - SEDGI	↓	↓	VEG	1		✓			
	" " " " - TEA			VEG	1		✓			
	" " " " - HUCKE			BERRY	1		✓			
	" " " " - SOIL			SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE-PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug	Time: 10:25 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21-ERM0100-002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a
ALS Lab Work Order # (ALS use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#:	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		
ALS Contact:	Amber Springer	Sampler:	J. Atkins

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-QAQC-2021-002-WILL	11-AUG-21	08:50	VEG	1		✓			
	" " " " -TEA	"	"	VEG	1		✓			
	" " " " -SEDGE	"	"	VEG	1		✓			
	" " " " -SOAP	"	"	BERRY	1		✓			
	" " " " -SOILU	"	"	SOIL	1	✓				
	" " " " -SOILW	"	"	SOIL	1	✓				
	"									

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			15°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: JG	Date: 25 Aug	Time: 10:25AM

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Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERMO100-002

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
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☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
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AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J. ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-QAQC-2021-003-WILL	11-AUG-21		VEG	1		✓			
	" " " " -SOIL	↓		SOIL	1	✓				
	" " " " -SOAP			BERRY	1		✓			
	" " " " -TEA			VEG	1		✓			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15 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: JG	Date: 25 Aug 21	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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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.

Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERMO100-002

Page 33 of 38

www.alsglobal.com

10 coolers

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax nicole.bishop@erm.com

Email 2 lshelley@entiaenviro.com

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

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☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

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Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: J ATKINS

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	CFMP-SV-002-WILL	12AUG21	13:45	VEG	1		✓			
	CFMP " SEDG	↓	↓	↓	1		✓			
	CFMP " TEA				1		✓			
	CFMP " SOAP			BERRY	1		✓			
	CFMP " BLUE			BERRY	1		✓			
	CFMP " SOIL	↓	↓	SOIL	1	✓				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			8.5 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: JK	Date: 25 Aug 10	Time: 10:05 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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Samples in freezer until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100 - 002.

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

10 Coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax nicole.bishop@erm.com

Email 2 lshelley@entiaenviro.com

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
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Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: Sean Sharpe

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	CFMP-SV-035 - SOAP	16-AUG-21	09:45	Berry	1		X			
	CFMP-SV-035 - WILL	"	"	Veg	1		X			
	CFMP-SV-035 - SEDG	"	"	Veg	1		X			
	CFMP-SV-035 - SOIL	"	"	Soil	1	X				
	CFMP-SV-036 - SOAP	"	10:15	Berry	1		X			
	CFMP-SV-036 - WILL	"	"	Veg	1		X			
	CFMP-SV-036 - SEDG	"	"	Veg	1		X			
	CFMP-SV-036 - SOIL	"	"	Soil	1	X				
	CFMP-SV-037 - SOAP	"	11:00	Berry			X			
	CFMP-SV-037 - WILL	"	"	Veg			X			
	CFMP-SV-037 - SEDG	"	"	Veg			X			
	CFMP-SV-037 - SOIL	"	"	Soil		X				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			15		

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: slp	Date: 25 Aug	Time: 10:25 am

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Samples Frozen until Aug 21

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COC Number: 21 - ERM0100-002

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Canada Toll Free: 1 800 668 9878

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City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: nicole.bishop@erm.com
Email 2: lshelley@entiaenviro.com
Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax:
Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
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Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: Sean Sharpe

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	CFMP-SV-038 - SOAP	16-Aug-21	11:30	Berry	1		X			
	CFMP-SV-038 - WILL	"	"	Veg	1		X			
	CFMP-SV-038 - SEDG	"	"	Veg	1		X			
	CFMP-SV-038 - SOIL	"	"	Soil	1	X				
	CFMP-SV-039 - SOAP	16-Aug-21	12:30		1		X			
	CFMP-SV-039 - WILL	"	"		1		X			
	CFMP-SV-039 - SEDG	"	"		1		X			
	CFMP-SV-039 - SOIL	"	"		1	X				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			15.1		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
JM	25 Aug	10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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AUG 2020 FRONT

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

Samples frozen until 1 Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100 - 002

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: lshelley@entiaenviro.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: Sean Sharpe

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	M01 CFMP-SV-001 - HUCK	20-Aug-21	07:30	Berry	1		X			
	M01 CFMP-SV-001 - BLUE	"	"	Berry	1		X			
	M01 CFMP-SV-001 - WILL	"	"	Veg	1		X			
	M01 CFMP-SV-001 - SEDG	"	"	Veg	1		X			
	M01 CFMP-SV-001 - SOIL	"	"	Soil	1	X				
	N006 CFMP-SV-006 - HUCK	20-Aug-21	10:00	Berry	1		X			
	N006 CFMP-SV-006 - BLUE	"	"	Berry	1		X			
	N006 CFMP-SV-006 - WILL	"	"	Veg	1		X			
	N006 CFMP-SV-006 - SEDG	"	"	Veg	1		X			
	N006 CFMP-SV-006 - SOIL	"	"	Soil	1	X				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15°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: JK	Date: 25 Aug 21	Time: 10:25 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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ALS 2020 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.

Samples frozen until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM0100-002

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 Coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☑ MAIL ☑ FAX

Email 1 or Fax nicole.bishop@erm.com

Email 2 lshelley@entiaenviro.com

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO# n/a
Major/Minor Code:	Routing Code: n/a
Requisitioner:	n/a
Location:	n/a

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: Sean Sharpe

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Ti)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	N014 CFMP-SV-014- SOAP	20-Aug-21	12:30	Berry	1		X			
	N014 CFMP-SV-014- BLUE	"	"	Berry	1		X			
	N014 CFMP-SV-014- WILL	"	"	Veg	1		X			
	N014 CFMP-SV-014 — LABT	"	"	Veg	1		X			
	N014 CFMP-SV-014 — SEDG	"	"	Veg	1		X			
	N014 CFMP-SV-014 — SOIL	"	"	Soil	1	X				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota).

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15			

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: JG	Date: 25 Aug	Time: 10:25AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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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.

Samples frozen until Aug 21

Chain of Custody (COC) / Analytical Request Form

COC Number: 21 - ERM MO100-002

Page 38 of 38

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

10 Coolers

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada
Contact:	Nicole Bishop
Phone:	604-319-9352
	Company address below will appear on the final report
Street:	1111 West Hasting St., 15th Floor
City/Province:	Vancouver, BC
Postal Code:	V6E 2J3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	ERM Consultants Canada
Contact:	Nicole Bishop

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: nicole.bishop@erm.com

Email 2: ~~lshelley@entiagenvirg.com~~

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ ~~2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum~~
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA-21-ERMO100-002
Job #:	Blackwater Project
PO / AFE:	n/a
LSD:	n/a

Oil and Gas Required Fields (client use)

AFE/Cost Center:		PO#	n/a
Major/Minor Code:		Routing Code:	n/a
Requisitioner:	n/a		
Location:	n/a		

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer

Sampler: B. Andrew

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Soil (CCME metals + Hg + pH)	Biota (metals+moisture+Ag+Hg+Tl)	Soil Nutrients	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	Johnny Lake - Soil - 1	~~Aug~~ "	12:00	SOIL	1			X	X		
	" - 2	16-Aug-21	13:00	↓	1			X	X		
	" - 3	↓	↓	↓	1			X	X		
	" - ~~4~~ 7				1			X	X		
	" - ~~5~~ 8				1			X	X		
	~~7~~				~~1~~						

Please Hold Samples for future Analysis

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please include parameter list noted in the ALS quote for soil (CCME metals + Hg + pH) and tissue (metals in biota, metals and mercury biota digestion, moisture content, silver in biota, mercury in biota by CVAAS, titanium in biota)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				15.4			

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:
						IG	25 Aug	10:25 am

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

APPENDIX D SUMMARY STATISTICS OF METAL CONCENTRATIONS IN SOIL, PLANTS, AND BERRIES FOR EACH SUB-AREA AND SPECIES

Table D-1: Summary Statistics of Metal Concentrations in Soil Samples from Mid-field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soil, Mid Field (n = 13; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
pH (pH units)	0.1	13	4.46	5.36	0.61	0.17	5.69	5.31	6.44	6.60
Aluminum	50	13	497	12316	6852	1900	16041	10100	23560	28900
Antimony	0.1	13	0.095	0.353	0.214	0.059	0.469	0.300	0.70	0.920
Arsenic	0.1	13	0.71	5.01	5.63	1.56	8.06	3.52	14.8	22.2
Barium	0.5	13	45.1	91	42	12	114	76.5	156	192
Beryllium	0.1	12	0.050	0.345	0.197	0.055	0.452	0.250	0.638	0.65
Bismuth	0.2	1	0.100	0.123	-	-	0.168	0.100	0.220	0.40
Boron	5	0	2.50	2.50	-	-	2.50	2.50	2.50	2.50
Cadmium	0.02	13	0.051	0.224	0.210	0.058	0.338	0.124	0.61	0.674
Calcium	50	13	1060	6875	7480	2074	10941	4150	22820	24350
Chromium	0.5	13	0.89	11.5	4.5	1.2	13.9	13.10	15.8	16.5
Cobalt	0.1	13	1.22	4.12	2.36	0.65	5.40	4.01	7.74	10.4
Copper	0.5	13	2.42	10.7	8.4	2.3	15.3	7.15	27.1	28.7
Iron	50	13	3466	14772	6225	1726	18156	16400	21660	24900
Lead	0.5	13	0.41	5.80	3.25	0.90	7.57	5.58	10.9	13.6
Lithium	2	11	1.00	5.72	4.06	1.13	7.93	5.40	11.5	17.4
Magnesium	20	13	669	2015	685	190	2387	1980	3040	3640
Manganese	1	13	48	710	963	267	1234	422	2396	3666
Mercury	0.005	13	0.0149	0.0547	0.0282	0.0078	0.0701	0.0600	0.0969	0.103
Molybdenum	0.1	13	0.56	1.70	2.35	0.65	2.98	0.82	5.33	9.24
Nickel	0.5	13	1.24	6.54	2.28	0.63	7.8	6.87	9.3	10.0
Phosphorus	50	13	419	775	243	67	907	704	1140	1200
Potassium	100	13	220	709	386	107	919	700	1232	1820
Selenium	0.2	3	0.100	0.163	-	-	0.240	0.100	0.432	0.570
Silver	0.1	6	0.050	0.217	0.326	0.090	0.394	0.050	0.928	1.00
Sodium	50	13	62	90	18	5	100	95	111	113
Strontium	0.5	13	12.65	51.2	42.2	11.7	74.1	42.9	133	144
Sulfur	1000	3	500	665	-	-	841	500	1280	1400
Thallium	0.05	11	0.0250	0.0888	0.0608	0.0169	0.122	0.0740	0.213	0.233
Tin	2	0	1.000	1.00	-	-	1.00	1.00	1.00	1.00
Titanium	1	13	14.45	418	320	89	592	436	842	1030
Tungsten	0.5	0	0.25	0.25	-	-	0.250	0.25	0.25	0.25
Uranium	0.05	13	0.041	1.04	1.41	0.39	1.81	0.580	3.12	5.5
Vanadium	0.2	13	2.13	35.9	17.8	4.9	45.6	41.3	57.7	62.6
Zinc	2	13	10.5	41.3	17.6	4.89	50.9	42.6	66.9	75.8
Zirconium	1	8	0.50	1.67	1.08	0.30	2.25	1.40	3.04	3.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-2: Summary Statistics of Metal Concentrations in Soil Samples from Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soil, Control (n = 13; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
pH (pH units)	0.1	13	4.10	5.56	0.83	0.23	6.01	5.46	6.66	6.79
Aluminum	50	13	164	12936	8231	2283	17411	11900	24640	32200
Antimony	0.1	12	0.050	0.344	0.200	0.056	0.453	0.300	0.67	0.870
Arsenic	0.1	13	1.32	4.83	3.87	1.07	6.93	3.51	11.8	16.2
Barium	0.5	13	62.5	103	61.9	17.2	136	75.3	216	275
Beryllium	0.1	12	0.050	0.288	0.178	0.049	0.385	0.260	0.540	0.81
Bismuth	0.2	1	0.100	0.181	-	-	0.339	0.100	0.520	1.15
Boron	5	0	2.50	2.50	-	-	2.50	2.50	2.50	2.50
Cadmium	0.02	13	0.035	0.157	0.144	0.040	0.235	0.090	0.38	0.589
Calcium	50	13	1270	6329	5915	1641	9545	3300	16780	18400
Chromium	0.5	12	0.25	18.2	12.6	3.5	25.0	22.20	34.7	47.5
Cobalt	0.1	13	2.40	5.66	2.10	0.58	6.80	6.08	8.16	8.2
Copper	0.5	13	2.69	10.5	6.5	1.8	14.0	9.38	21.6	28.9
Iron	50	13	11500	24677	10609	2943	30444	24200	39920	51200
Lead	0.5	12	0.25	5.83	3.16	0.88	7.54	6.66	9.9	11.5
Lithium	2	11	1.00	5.84	3.22	0.89	7.59	6.35	10.5	10.6
Magnesium	20	13	1180	3192	1795	498	4168	2700	6104	7550
Manganese	1	13	131	730	1260	349	1415	364	2497	4880
Mercury	0.005	13	0.0155	0.0503	0.0276	0.0077	0.0653	0.0491	0.0894	0.106
Molybdenum	0.1	13	0.40	0.97	0.51	0.14	1.25	0.78	1.91	2.18
Nickel	0.5	13	0.88	11.5	7.0	2.0	15.3	11.4	21.9	26.8
Phosphorus	50	13	465	821	283	78	975	759	1232	1250
Potassium	100	13	230	633	191	53	737	630	942	1020
Selenium	0.2	3	0.100	0.194	-	-	0.295	0.100	0.572	0.620
Silver	0.1	5	0.050	0.129	0.138	0.038	0.204	0.050	0.354	0.54
Sodium	50	12	25	121	72	20	160	107	245	316
Strontium	0.5	13	11.20	41.3	30.2	8.4	57.7	24.1	94	96
Sulfur	1000	1	500	554	-	-	659	500	780	1200
Thallium	0.05	10	0.0250	0.0644	0.0290	0.0081	0.080	0.0650	0.112	0.116
Tin	2	0	1.000	1.00	-	-	1.00	1.00	1.00	1.00
Titanium	1	13	5.70	924	679	188	1293	855	1936	2170
Tungsten	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Uranium	0.05	12	0.025	1.28	3.24	0.90	3.04	0.314	5.63	12.0
Vanadium	0.2	13	0.60	50.8	26.3	7.3	65.1	51.3	88.8	98.5
Zinc	2	13	4.00	55.6	34.6	9.6	74.5	50.6	118	121
Zirconium	1	11	0.50	3.04	2.36	0.65	4.32	2.30	7.50	8.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-3: Summary Statistics of Metal Concentrations in Soil Samples from Road Transect Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soil, Road Transect (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
pH (pH units)	0.1	5	5.05	5.63	0.40	0.18	5.99	5.74	6.06	6.12
Aluminum	50	5	13600	16680	1969	881	18406	16600	18620	18800
Antimony	0.1	5	0.260	0.284	0.034	0.015	0.313	0.270	0.33	0.340
Arsenic	0.1	5	3.02	3.61	0.57	0.25	4.11	3.45	4.2	4.3
Barium	0.5	5	74.3	192	86	38	267	178.0	293	308
Beryllium	0.1	5	0.340	0.388	0.038	0.017	0.422	0.390	0.428	0.43
Bismuth	0.2	0	0.100	0.100	-	-	0.100	0.100	0.100	0.100
Boron	5	0	2.50	2.50	-	-	2.50	2.50	2.50	2.50
Cadmium	0.02	5	0.065	0.116	0.056	0.025	0.165	0.112	0.19	0.205
Calcium	50	5	2520	3284	992	444	4153	2970	4640	4980
Chromium	0.5	5	15.6	17.3	1.5	0.7	18.6	17.00	19.1	19.2
Cobalt	0.1	5	6.56	7.10	0.39	0.18	7.44	7.06	7.56	7.7
Copper	0.5	5	8.33	8.62	0.22	0.10	8.8	8.57	8.9	8.9
Iron	50	5	21500	23780	1322	591	24939	24000	24700	24700
Lead	0.5	5	4.10	4.65	0.40	0.18	5.00	4.53	5.1	5.1
Lithium	2	5	7.10	7.70	0.42	0.19	8.07	7.80	8.1	8.2
Magnesium	20	5	4350	4510	114	51	4610	4520	4624	4630
Manganese	1	5	488	1498	597	267	2021	1620	1952	1960
Mercury	0.005	5	0.0124	0.0212	0.0062	0.0028	0.0267	0.0210	0.0283	0.030
Molybdenum	0.1	5	0.52	0.54	0.02	0.01	0.56	0.53	0.57	0.58
Nickel	0.5	5	13.7	16.0	1.7	0.7	17.4	15.6	17.7	17.8
Phosphorus	50	5	548	837	282	126	1084	690	1174	1200
Potassium	100	5	570	682	111	49	779	660	828	860
Selenium	0.2	0	0.100	0.100	-	-	0.100	0.100	0.100	0.100
Silver	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.05
Sodium	50	5	85	106	16	7	120	104	124	126
Strontium	0.5	5	15.8	23.5	10.8	4.8	33.0	19.5	38	42
Sulfur	1000	0	500	500	-	-	500	500	500	500
Thallium	0.05	5	0.0640	0.0824	0.0129	0.0058	0.094	0.0830	0.0968	0.0990
Tin	2	0	1.00	1.00	-	-	1.00	1.00	1.00	1.00
Titanium	1	5	666	758	68	30	817	763	828	832
Tungsten	0.5	0	0.25	0.25	-	-	0.250	0.25	0.25	0.25
Uranium	0.05	5	0.253	0.29	0.048	0.021	0.33	0.254	0.35	0.4
Vanadium	0.2	5	54.2	58.3	3.3	1.5	61.2	58.0	62.3	62.8
Zinc	2	5	60.2	115	36	16	146	128	148	152
Zirconium	1	4	0.50	1.42	1.08	0.48	2.37	1.10	2.86	3.30

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-4: Summary Statistics of Metal Concentrations in Willow Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Willow, LSA-wide (n = 38; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	38	57.2	65.1	3.8	0.6	66.3	65.6	71.1	74.0
Aluminum	2	38	3.5	39.7	59.9	9.7	58.8	12.5	156	240
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	23	0.010	0.037	0.041	0.007	0.050	0.023	0.107	0.201
Barium	0.05	38	0.93	31.86	29.51	4.79	41.2	21.4	94.4	119
Beryllium	0.01	4	0.005	0.008	-	-	0.012	0.005	0.028	0.053
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	38	2.50	15.7	9.62	1.56	18.8	15.5	32.6	39.9
Cadmium	0.005	38	0.0121	0.964	0.856	0.139	1.24	0.839	2.62	3.59
Calcium	20	38	8110	14951	3783	614	16154	14500	20725	23800
Cesium	0.005	35	0.0025	0.541	2.48	0.403	1.33	0.0209	1.19	15.2
Chromium	0.05	20	0.025	0.078	0.089	0.014	0.106	0.055	0.290	0.346
Cobalt	0.02	38	0.102	0.630	0.736	0.119	0.864	0.449	1.32	4.50
Copper	0.1	38	0.62	3.82	1.09	0.18	4.17	3.72	5.57	6.01
Iron	3	38	35.7	88.7	85.7	13.9	116	56.0	258	408
Lead	0.02	8	0.01	0.0201	-	-	0.0277	0.0100	0.0857	0.0980
Lithium	0.5	2	0.25	0.28	-	-	0.33	0.25	0.25	1.26
Magnesium	2	38	1710	3367	1178	191	3742	3120	5162	7480
Manganese	0.05	38	38	274	272	44	361	223	556	1640
Mercury	0.005	38	0.0053	0.0092	0.0026	0.0004	0.0101	0.0088	0.0127	0.0207
Molybdenum	0.02	38	0.0930	0.784	0.675	0.109	1.00	0.621	2.30	3.27
Nickel	0.2	32	0.10	0.96	0.79	0.13	1.21	0.67	2.41	2.99
Phosphorus	10	38	1590	3025	969	157	3333	2810	4890	5510
Potassium	20	38	4990	14762	4379	710	16155	13950	22395	24500
Rubidium	0.05	38	2.28	14.1	17.1	2.77	19.5	9.42	36.5	95.0
Selenium	0.05	2	0.025	0.028	-	-	0.033	0.025	0.034	0.091
Silver	0.005	8	0.0025	0.0037	-	-	0.0045	0.0025	0.0079	0.0144
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	38	19	98	40	6	111	105	150	216
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	15	0.0010	0.0032	0.0066	0.0011	0.0053	0.0010	0.0074	0.0412
Tin	0.1	7	0.050	0.064	-	-	0.074	0.050	0.132	0.180
Titanium	0.25	38	0.32	1.77	2.81	0.46	2.66	0.60	6.25	14.0
Uranium	0.002	5	0.0010	0.0017	-	-	0.0024	0.0010	0.0052	0.0125
Vanadium	0.1	6	0.050	0.124	-	-	0.192	0.050	0.554	0.960
Zinc	0.5	38	18.7	83.8	48.7	7.9	99.3	78.0	165.4	197.0
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-5: Summary Statistics of Metal Concentrations in Sedge Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Sedge, LSA-wide (n = 31; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	31	52.8	63.9	4.5	0.8	65.5	63.3	70.6	72.1
Aluminum	2	30	1.0	16.2	21.8	3.9	23.9	5.9	70	80
Antimony	0.01	1	0.005	0.006	-	-	0.009	0.005	0.005	0.047
Arsenic	0.02	18	0.010	0.063	0.110	0.020	0.101	0.022	0.178	0.585
Barium	0.05	31	9.44	41.8	23.2	4.17	49.9	36.2	76.1	106
Beryllium	0.01	1	0.005	0.005	-	-	0.006	0.005	0.005	0.013
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	31	1.85	5.9	3.61	0.65	7.2	4.8	12.8	15.4
Cadmium	0.005	21	0.0025	0.015	0.016	0.003	0.021	0.0075	0.055	0.062
Calcium	20	31	3250	5513	1758	316	6131	5100	8455	11000
Cesium	0.005	30	0.0025	1.318	5.82	1.045	3.37	0.1210	1.56	32.6
Chromium	0.05	20	0.025	0.079	0.064	0.011	0.102	0.060	0.188	0.269
Cobalt	0.02	25	0.010	0.066	0.082	0.015	0.095	0.045	0.14	0.46
Copper	0.1	31	0.45	2.61	1.52	0.27	3.14	2.65	4.69	6.55
Iron	3	31	8.2	89.4	81.2	14.6	118	61.1	156	462
Lead	0.02	8	0.01	0.0156	-	-	0.0193	0.0100	0.0385	0.0430
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	31	506	1477	577	104	1680	1440	2610	2830
Manganese	0.05	31	93	469	273	49	566	425	999	1260
Mercury	0.005	25	0.0025	0.0065	0.0025	0.0004	0.0074	0.0066	0.0103	0.0109
Molybdenum	0.02	31	0.1560	3.386	3.256	0.585	4.53	2.280	10.5	12.0
Nickel	0.2	8	0.10	0.16	-	-	0.19	0.10	0.36	0.50
Phosphorus	10	31	768	1746	360	65	1873	1710	2250	2270
Potassium	20	31	6090	14216	3774	678	15544	14600	19700	20700
Rubidium	0.05	31	2.89	13.2	11.3	2.03	17.1	9.83	38.0	48.3
Selenium	0.05	2	0.025	0.031	-	-	0.038	0.025	0.065	0.122
Silver	0.005	10	0.0025	0.0049	-	-	0.0065	0.0025	0.0119	0.0236
Sodium	20	5	10	22	37	7	35	10	107	158
Strontium	0.05	31	17	35	13	2	40	34	59	73
Tellurium	0.02	1	0.010	0.010	-	-	0.011	0.010	0.010	0.023
Thallium	0.002	13	0.0010	0.0035	0.0042	0.0008	0.0050	0.0010	0.0118	0.0178
Tin	0.1	9	0.050	0.113	0.118	0.021	0.155	0.050	0.400	0.430
Titanium	0.25	22	0.13	0.85	1.40	0.25	1.34	0.37	3.71	6.3
Uranium	0.002	4	0.0010	0.0018	-	-	0.0027	0.0010	0.0067	0.0120
Vanadium	0.1	4	0.050	0.078	-	-	0.108	0.050	0.240	0.460
Zinc	0.5	31	8.7	27.6	11.9	2.1	31.7	25.6	46.7	47.8
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-6: Summary Statistics of Metal Concentrations in Labrador Tea Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, LSA-wide (n = 23; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	23	50.4	55.0	3.5	0.7	56.4	54.2	59.2	68.1
Aluminum	2	23	6.3	25.3	14.4	3.0	31.2	23.0	45	72
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	1	0.010	0.010	-	-	0.011	0.010	0.010	0.020
Barium	0.05	23	44.60	72.5	17.1	3.56	79.5	69.7	103.0	114
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	23	3.30	14.9	5.36	1.12	17.1	14.4	23.4	25.1
Cadmium	0.005	4	0.0025	0.0034	-	-	0.0043	0.0025	0.0066	0.012
Calcium	20	23	4040	5157	769	160	5471	4940	6424	6610
Cesium	0.005	23	0.0078	0.079	0.11	0.024	0.13	0.0455	0.38	0.4
Chromium	0.05	9	0.025	0.050	-	-	0.073	0.025	0.086	0.293
Cobalt	0.02	8	0.010	0.016	-	-	0.020	0.010	0.038	0.039
Copper	0.1	23	1.74	2.99	0.55	0.11	3.21	2.96	3.95	3.97
Iron	3	23	25.1	36.6	8.3	1.7	40	34.8	48	53
Lead	0.02	2	0.01	0.0113	-	-	0.0136	0.0100	0.0145	0.0360
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	23	865	1223	202	42	1306	1215	1534	1740
Manganese	0.05	23	225	1240	596	124	1484	1400	2180	2240
Mercury	0.005	23	0.0058	0.0107	0.0023	0.0005	0.0117	0.0111	0.0137	0.0141
Molybdenum	0.02	23	0.0630	0.481	0.539	0.112	0.70	0.285	1.66	2.35
Nickel	0.2	8	0.10	0.17	-	-	0.21	0.10	0.38	0.40
Phosphorus	10	23	1180	1432	188	39	1509	1420	1717	1930
Potassium	20	23	4940	5983	685	143	6263	5810	6779	8110
Rubidium	0.05	23	2.97	9.3	7.1	1.48	12.2	7.53	16.5	37.3
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	23	5.9	19	9	2	23	17	32	41
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	2	0.0010	0.0016	0.0022	0.0005	0.0025	0.0010	0.0044	0.0109
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	23	0.32	0.82	0.40	0.08	0.98	0.72	1.60	1.8
Uranium	0.002	1	0.0010	0.0011	-	-	0.0012	0.0010	0.0010	0.0029
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	23	19.9	25.1	4.3	0.9	26.9	23.4	29.9	39.3
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-6: Summary Statistics of Metal Concentrations in Labrador Tea Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, LSA-wide (n = 23; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation (n = 23)										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-7: Summary Statistics of Metal Concentrations in Huckleberry Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, LSA-wide (n = 12; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	12	82.7	86.9	2.2	0.6	88.2	86.9	89.6	89.7
Aluminum	2	12	18.0	35.1	12.0	3.5	41.9	30.6	55	58
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	1	0.010	0.015	-	-	0.024	0.010	0.038	0.065
Barium	0.05	12	9.58	20.1	8.9	2.58	25.2	19.1	34.4	42
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	12	3.30	8.0	2.69	0.78	9.6	8.0	11.7	13.1
Cadmium	0.005	9	0.0025	0.0124	0.010	0.003	0.0181	0.0095	0.0283	0.036
Calcium	20	12	776	1433	450	130	1687	1385	2161	2260
Cesium	0.005	12	0.0195	0.276	0.63	0.181	0.63	0.0839	1.13	2.3
Chromium	0.05	3	0.025	0.121	-	-	0.253	0.025	0.513	0.834
Cobalt	0.02	2	0.010	0.013	-	-	0.017	0.010	0.028	0.029
Copper	0.1	12	3.50	5.65	1.29	0.37	6.38	5.52	7.46	8.79
Iron	3	12	11.8	19.7	8.0	2.3	24	17.1	35	39
Lead	0.02	2	0.01	0.0148	-	-	0.0187	0.0100	0.0250	0.0250
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	12	500	734	140	40	813	729	940	965
Manganese	0.05	12	158	288	103	30	346	264	473	503
Mercury	0.005	2	0.0025	0.0036	-	-	0.0054	0.0025	0.0084	0.0138
Molybdenum	0.02	12	0.0970	0.396	0.285	0.082	0.56	0.326	0.85	1.14
Nickel	0.2	7	0.10	0.34	0.230	0.066	0.47	0.39	0.63	0.65
Phosphorus	10	12	1200	1807	317	91	1986	1750	2304	2480
Potassium	20	12	5180	8065	1208	349	8748	8040	9586	10400
Rubidium	0.05	12	16.20	27.1	11.7	3.37	33.7	23.40	47.2	53.9
Selenium	0.05	0	0.025	0.029	-	-	0.035	0.025	0.050	0.050
Silver	0.005	1	0.0025	0.0027	-	-	0.0032	0.0025	0.0037	0.0052
Sodium	20	4	10	58	104	30	117	10	252	357
Strontium	0.05	12	1.6	3.9	1.8	0.5	4.9	3.5	6.6	7.4
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	1	0.0010	0.0016	-	-	0.0026	0.0010	0.0040	0.0076
Tin	0.1	4	0.050	1.703	4.140	1.195	4.045	0.050	8.695	14.300
Titanium	0.25	3	0.13	0.29	-	-	0.52	0.13	0.99	1.5
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	12	6.1	9.3	2.7	0.8	10.8	9.0	13.5	15.4
Zirconium	0.2	1	0.10	0.11	-	-	0.13	0.10	0.15	0.22

Table D-7: Summary Statistics of Metal Concentrations in Huckleberry Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, LSA-wide (n = 12; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation (n = 10)										
Arsenate [As V]	0.025	1	0.01250	0.01395	-	-	0.01679	0.01250	0.02048	0.02700
Arsenite [As III]	0.005	2	0.00250	0.00439	-	-	0.00750	0.00250	0.01260	0.01840
Arsenobetaine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-8: Summary Statistics of Metal Concentrations in Soapberry Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, LSA-wide (n = 21; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	21	72.3	78.8	3.0	0.7	80.1	78.7	83.5	83.8
Aluminum	2	19	1.0	22.8	57.6	12.6	47.5	5.1	58	268
Antimony	0.01	1	0.005	0.005	-	-	0.006	0.005	0.005	0.011
Arsenic	0.02	2	0.010	0.014	-	-	0.022	0.010	0.025	0.088
Barium	0.05	21	0.60	2.2	1.7	0.37	2.9	1.7	4.1	8.7
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	21	6.80	11.1	2.56	0.56	12.2	10.7	15.6	16.5
Cadmium	0.005	18	0.0025	0.0086	0.005	0.001	0.0106	0.0083	0.0165	0.017
Calcium	20	21	573	882	215	47	974	832	1150	1500
Cesium	0.005	9	0.0025	0.007	0.01	0.002	0.01	0.0025	0.01	0.1
Chromium	0.05	5	0.025	0.053	-	-	0.086	0.025	0.125	0.375
Cobalt	0.02	8	0.010	0.020	0.020	0.004	0.029	0.010	0.045	0.095
Copper	0.1	21	3.00	4.77	0.87	0.19	5.15	4.91	5.80	6.38
Iron	3	21	17.9	42.3	60.6	13.2	68	24.2	47	304
Lead	0.02	3	0.01	0.0231	-	-	0.0456	0.0100	0.0290	0.2520
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	21	447	586	65	14	614	577	673	710
Manganese	0.05	21	9	16	5	1	18	15	24	34
Mercury	0.005	2	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Molybdenum	0.02	21	0.6820	1.752	0.853	0.186	2.12	1.530	2.27	5.09
Nickel	0.2	21	1.55	2.53	1.048	0.229	2.98	2.30	3.97	6.27
Phosphorus	10	21	1660	2030	204	45	2117	2060	2320	2390
Potassium	20	21	8510	10865	1077	235	11325	10800	12800	13400
Rubidium	0.05	21	4.02	8.1	2.5	0.55	9.2	7.31	12.9	13.5
Selenium	0.05	6	0.025	0.047	-	-	0.065	0.025	0.121	0.169
Silver	0.005	15	0.0025	0.0077	0.005	0.001	0.0096	0.0075	0.0137	0.0186
Sodium	20	2	10	12	-	-	15	10	27	39
Strontium	0.05	21	2.9	5.8	1.7	0.4	6.6	5.5	8.0	10.1
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	1	0.0010	0.0011	-	-	0.0013	0.0010	0.0010	0.0028
Tin	0.1	1	0.050	0.062	-	-	0.085	0.050	0.050	0.300
Titanium	0.25	11	0.13	1.28	3.614	0.789	2.83	0.22	2.94	16.8
Uranium	0.002	1	0.0010	0.0018	-	-	0.0034	0.0010	0.0010	0.0178
Vanadium	0.1	2	0.050	0.094	-	-	0.168	0.050	0.180	0.840
Zinc	0.5	21	7.2	10.3	2.0	0.4	11.2	10.4	13.5	14.6
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-8: Summary Statistics of Metal Concentrations in Soapberry Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, LSA-wide (n = 21; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation (n = 21)										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-9: Summary Statistics of Metal Concentrations in Blueberry Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, LSA-wide (n = 10; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	10	74.6	83.7	4.0	1.3	86.1	84.1	88.5	89.0
Aluminum	2	10	13.3	33.1	20.4	6.5	45.8	27.4	69	76
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	3	0.010	0.013	-	-	0.017	0.010	0.022	0.022
Barium	0.05	10	11.00	14.9	2.6	0.83	16.5	14.7	18.4	19.5
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	10	3.00	8.8	3.23	1.02	10.8	9.7	12.5	13.6
Cadmium	0.005	9	0.0025	0.0089	0.004	0.001	0.0114	0.0090	0.0151	0.017
Calcium	20	10	845	1112	228	72	1253	1040	1483	1600
Cesium	0.005	7	0.0025	0.209	0.63	0.199	0.60	0.0139	1.11	2.0
Chromium	0.05	4	0.025	0.060	0.048	0.015	0.090	0.025	0.134	0.155
Cobalt	0.02	1	0.010	0.012	-	-	0.014	0.010	0.018	0.025
Copper	0.1	10	4.18	5.25	0.75	0.24	5.71	5.24	6.33	6.68
Iron	3	10	14.2	23.6	12.4	3.9	31	17.6	45	54
Lead	0.02	3	0.01	0.0178	-	-	0.0264	0.0100	0.0427	0.0490
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	10	458	650	107	34	716	681	772	774
Manganese	0.05	10	116	295	114	36	365	303	457	534
Mercury	0.005	0	0.0025	0.0025	-	-	0.0026	0.0025	0.0026	0.0027
Molybdenum	0.02	10	0.3520	0.603	0.414	0.131	0.86	0.509	1.24	1.75
Nickel	0.2	7	0.10	0.23	0.102	0.032	0.29	0.25	0.37	0.40
Phosphorus	10	10	1460	1656	96	30	1715	1670	1781	1790
Potassium	20	10	5410	8130	1229	389	8892	8290	9492	9550
Rubidium	0.05	10	4.67	9.5	8.6	2.73	14.9	6.61	23.0	33.4
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	2	0.0025	0.0037	-	-	0.0054	0.0025	0.0087	0.0100
Sodium	20	3	10	18	14.998	4.743	28	10	46	50
Strontium	0.05	10	3.0	5.0	1.6	0.5	6.1	4.8	7.4	7.6
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	4	0.050	0.431	0.523	0.165	0.755	0.050	1.251	1.390
Titanium	0.25	4	0.13	0.51	0.668	0.211	0.93	0.13	1.72	2.1
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	10	5.5	8.1	1.3	0.4	8.8	8.2	9.6	10.1
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-9: Summary Statistics of Metal Concentrations in Blueberry Samples, LSA-wide

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, LSA-wide (n = 10; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation (n = 10)										
Arsenate [As V]	0.025	3	0.01250	0.01685	-	-	0.02120	0.01250	0.02755	0.02800
Arsenite [As III]	0.005	1	0.00250	0.00277	-	-	0.00330	0.00250	0.00399	0.00520
Arsenobetaine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-10: Summary Statistics of Metal Concentrations in Willow Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Willow, Near Field (n = 11; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	11	60.4	65.8	2.7	0.8	67.4	66.5	68.6	69.1
Aluminum	2	11	9.2	51.0	48.4	14.6	79.6	20.1	131	141
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	6	0.010	0.029	0.028	0.008	0.046	0.020	0.083	0.087
Barium	0.05	11	7.92	34.8	28.5	8.6	51.7	26.6	81.9	105
Beryllium	0.01	3	0.005	0.015	0.019	0.006	0.026	0.005	0.052	0.053
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	11	2.50	15.2	8.91	2.69	20.5	13.9	28.4	35.6
Cadmium	0.005	11	0.0121	0.913	0.946	0.285	1.47	0.689	2.53	2.70
Calcium	20	11	8110	13846	3280	989	15784	13800	18850	19000
Cesium	0.005	11	0.0080	0.064	0.08	0.024	0.11	0.0315	0.21	0.3
Chromium	0.05	6	0.025	0.069	0.063	0.019	0.106	0.059	0.177	0.233
Cobalt	0.02	11	0.102	0.885	1.265	0.381	1.633	0.473	3.03	4.50
Copper	0.1	11	3.05	3.85	0.71	0.21	4.27	3.97	4.77	4.89
Iron	3	11	35.7	82.5	67.4	20.3	122	51.1	215	222
Lead	0.02	3	0.01	0.0241	0.029	0.009	0.0411	0.0100	0.0785	0.0980
Lithium	0.5	1	0.25	0.34	-	-	0.52	0.25	0.76	1.26
Magnesium	2	11	1770	3165	1006	303	3759	2920	4593	4820
Manganese	0.05	11	59	372	445	134	635	188	1083	1640
Mercury	0.005	11	0.0053	0.0095	0.0040	0.0012	0.0119	0.0089	0.0156	0.0207
Molybdenum	0.02	11	0.0930	0.628	0.454	0.137	0.90	0.503	1.35	1.79
Nickel	0.2	9	0.10	1.21	0.96	0.29	1.78	1.04	2.68	2.99
Phosphorus	10	11	1590	3210	1156	348	3893	3065	4885	4890
Potassium	20	11	11500	16018	3872	1167	18306	14300	21900	24500
Rubidium	0.05	11	2.28	21.8	27.0	8.14	37.7	11.40	69.6	95.0
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	3	0.0025	0.0036	-	-	0.0047	0.0025	0.0067	0.0075
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	11	19	113	39	12	136	120	151	153
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	5	0.0010	0.0025	0.0026	0.0008	0.0040	0.0010	0.0077	0.0082
Tin	0.1	2	0.050	0.070	-	-	0.097	0.050	0.160	0.180
Titanium	0.25	11	0.36	1.58	1.92	0.58	2.71	0.72	5.40	5.7
Uranium	0.002	2	0.0010	0.0016	-	-	0.0023	0.0010	0.0041	0.0049
Vanadium	0.1	2	0.050	0.098	-	-	0.177	0.050	0.315	0.490
Zinc	0.5	11	25.4	90.9	53.0	16.0	122	88.4	172	190
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-11: Summary Statistics of Metal Concentrations in Sedge Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Sedge, Near Field (n = 8; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.50	8	56.6	63.8	4.3	1.5	66.8	63.0	68.8	68.6
Aluminum	2	8	3.1	4.7	1.8	0.6	5.9	4.1	8	9
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	5	0.010	0.034	0.035	0.012	0.058	0.022	0.092	0.101
Barium	0.05	8	12.00	37.1	22.1	7.81	52.4	26.4	65.1	67
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	8	1.90	4.4	2.87	1.01	6.4	3.4	9.2	7.1
Cadmium	0.005	4	0.0025	0.014	0.017	0.006	0.026	0.0081	0.041	0.016
Calcium	20	8	3250	4971	1832	648	6241	4210	7894	8940
Cesium	0.005	8	0.0168	0.244	0.30	0.105	0.45	0.1370	0.72	0.9
Chromium	0.05	5	0.025	0.091	0.087	0.031	0.151	0.052	0.229	0.154
Cobalt	0.02	5	0.010	0.049	0.043	0.015	0.079	0.037	0.11	0.13
Copper	0.1	8	0.94	2.08	0.97	0.34	2.75	2.05	3.30	3.30
Iron	3	8	32.0	68.4	41.3	14.6	97	52.6	137	149
Lead	0.02	1	0.01	0.0115	-	-	0.0144	0.0100	0.0178	0.0220
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	8	842	1420	457	162	1737	1375	1973	1960
Manganese	0.05	8	117	403	299	106	610	294	889	1010
Mercury	0.005	4	0.0025	0.0050	0.0028	0.0010	0.0069	0.0042	0.0087	0.0090
Molybdenum	0.02	8	0.2780	1.878	1.431	0.506	2.87	1.825	4.0	4.2
Nickel	0.2	1	0.10	0.13	-	-	0.18	0.10	0.24	0.10
Phosphorus	10	8	768	1594	438	155	1897	1655	2084	1960
Potassium	20	8	6090	12674	3351	1185	14996	12450	16485	16800
Rubidium	0.05	8	4.43	12.9	7.0	2.47	17.8	12.50	22.0	21.2
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	3	10	38	52	18	74	10	125	158
Strontium	0.05	8	20	40	16	6	51	36	66	73
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	5	0.0010	0.0056	0.0056	0.0020	0.0095	0.0052	0.0144	0.0178
Tin	0.1	1	0.050	0.061	-	-	0.083	0.050	0.109	0.140
Titanium	0.25	3	0.13	0.20	-	-	0.27	0.13	0.36	0.4
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	8	10.0	23.3	8.3	2.9	29.1	25.3	31.5	29.6
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-12: Summary Statistics of Metal Concentrations in Labrador Tea Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, Near Field (n = 8; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.50	8	51.8	56.0	5.2	1.8	59.6	54.6	64.0	68.1
Aluminum	2	8	17.5	26.9	8.7	3.1	33.0	25.8	38	40
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Barium	0.05	8	54.40	74.6	12.9	4.55	83.5	75.8	90.1	94
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	8	10.40	15.8	4.80	1.70	19.1	14.5	23.5	25.1
Cadmium	0.005	3	0.0025	0.0039	-	-	0.0052	0.0025	0.0066	0.007
Calcium	20	8	4230	4938	605	214	5357	5030	5750	5960
Cesium	0.005	8	0.0162	0.059	0.05	0.017	0.09	0.0511	0.14	0.2
Chromium	0.05	3	0.025	0.039	-	-	0.054	0.025	0.070	0.076
Cobalt	0.02	2	0.010	0.014	-	-	0.018	0.010	0.024	0.025
Copper	0.1	8	2.47	3.02	0.46	0.16	3.33	2.98	3.69	3.91
Iron	3	8	25.6	35.2	9.4	3.3	42	32.4	50	53
Lead	0.02	0	0.01	0.0100	-	-	0.0100	0.0100	0.0100	0.0100
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	8	1030	1251	169	60	1367	1228	1505	1540
Manganese	0.05	8	674	1469	467	165	1793	1683	1803	1820
Mercury	0.005	8	0.0078	0.0119	0.0023	0.0008	0.0135	0.0126	0.0140	0.0141
Molybdenum	0.02	8	0.0630	0.254	0.136	0.048	0.35	0.230	0.46	0.49
Nickel	0.2	4	0.10	0.18	-	-	0.24	0.15	0.32	0.38
Phosphorus	10	8	1180	1398	170	60	1515	1400	1640	1720
Potassium	20	8	5500	5764	302	107	5973	5663	6250	6400
Rubidium	0.05	8	3.00	8.0	3.6	1.26	10.5	6.61	12.8	12.8
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	8	10.9	19	9	3	25	17	33	41
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	8	0.32	0.86	0.51	0.18	1.21	0.69	1.69	1.8
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	8	20.3	24.9	3.4	1.2	27.3	25.1	28.8	28.8
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-12: Summary Statistics of Metal Concentrations in Labrador Tea Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, Near Field (n = 8; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-13: Summary Statistics of Metal Concentrations in Huckleberry Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, Near Field (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.50	5	82.7	86.5	2.9	1.3	89.0	87.3	89.4	89.7
Aluminum	2	5	18.0	40.4	16.3	7.3	54.7	44.0	57	58
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	0	0.010	0.012	-	-	0.014	0.010	0.015	0.015
Barium	0.05	5	18.30	26.4	9.5	4.25	34.7	22.2	39.4	42
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	5	3.40	8.6	3.59	1.61	11.7	8.1	12.6	13.1
Cadmium	0.005	4	0.0025	0.0178	0.013	0.006	0.0288	0.0174	0.0332	0.036
Calcium	20	5	1410	1756	387	173	2095	1560	2224	2260
Cesium	0.005	5	0.0321	0.105	0.07	0.030	0.16	0.0848	0.19	0.2
Chromium	0.05	2	0.025	0.247	0.341	0.152	0.546	0.100	0.717	0.834
Cobalt	0.02	1	0.010	0.013	-	-	0.020	0.010	0.024	0.027
Copper	0.1	5	4.94	6.26	1.51	0.67	7.58	5.82	8.30	8.79
Iron	3	5	15.4	25.2	9.9	4.4	34	21.4	38	39
Lead	0.02	1	0.01	0.0184	-	-	0.0252	0.0220	0.0250	0.0250
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	5	500	761	178	79	917	819	940	965
Manganese	0.05	5	159	338	139	62	460	316	492	503
Mercury	0.005	1	0.0025	0.0048	-	-	0.0092	0.0025	0.0115	0.0138
Molybdenum	0.02	5	0.2560	0.422	0.161	0.072	0.56	0.472	0.60	0.62
Nickel	0.2	4	0.10	0.42	0.213	0.095	0.61	0.52	0.60	0.61
Phosphorus	10	5	1580	1822	216	97	2012	1780	2102	2160
Potassium	20	5	5180	7870	1535	687	9216	8550	8864	8920
Rubidium	0.05	5	17.40	32.1	14.3	6.41	44.7	28.60	50.7	53.9
Selenium	0.05	0	0.025	0.035	-	-	0.047	0.025	0.050	0.050
Silver	0.005	1	0.0025	0.0030	-	-	0.0041	0.0025	0.0047	0.0052
Sodium	20	2	10	111	153	69	245	10	319	357
Strontium	0.05	5	3.3	5.5	1.5	0.7	6.8	5.7	7.1	7.4
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	1	0.0010	0.0023	-	-	0.0049	0.0010	0.0063	0.0076
Tin	0.1	2	0.050	3.71	6.17	2.76	9.12	0.050	12.3	14.3
Titanium	0.25	2	0.13	0.52	0.585	0.261	1.03	0.25	1.32	1.5
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	5	7.1	10.5	3.2	1.4	13.2	9.2	14.6	15.4
Zirconium	0.2	1	0.10	0.12	-	-	0.17	0.10	0.20	0.22

Table D-13: Summary Statistics of Metal Concentrations in Huckleberry Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, Near Field (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation (n = 3)										
Arsenate [As V]	0.025	1	0.01250	0.01733	-	-	0.02681	0.01250	0.02555	0.02700
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-14: Summary Statistics of Metal Concentrations in Soapberry Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Near Field (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.50	5	74.9	80.3	3.3	1.5	83.1	81.3	83.2	83.5
Aluminum	2	4	1.0	60.5	116.2	52.0	162.3	14.4	217	268
Antimony	0.01	1	0.005	0.006	-	-	0.009	0.005	0.010	0.011
Arsenic	0.02	1	0.010	0.026	-	-	0.056	0.010	0.072	0.088
Barium	0.05	5	0.60	3.1	3.2	1.43	5.9	2.0	7.5	8.7
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	5	10.60	12.1	1.41	0.63	13.3	12.3	13.5	13.6
Cadmium	0.005	3	0.0025	0.0053	0.004	0.002	0.0086	0.0042	0.0105	0.012
Calcium	20	5	655	913	337	151	1208	832	1369	1500
Cesium	0.005	2	0.0025	0.013	0.02	0.010	0.03	0.0025	0.04	0.1
Chromium	0.05	1	0.025	0.095	-	-	0.232	0.025	0.305	0.375
Cobalt	0.02	3	0.010	0.035	0.035	0.016	0.066	0.028	0.083	0.095
Copper	0.1	5	3.90	5.15	0.96	0.43	5.99	5.35	6.22	6.38
Iron	3	5	23.1	85.7	122.3	54.7	193	37.9	251	304
Lead	0.02	1	0.01	0.0584	-	-	0.1533	0.0100	0.2036	0.2520
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	5	545	603	67	30	662	579	693	710
Manganese	0.05	5	10	18	9	4	26	15	31	34
Mercury	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Molybdenum	0.02	5	0.6820	1.342	0.443	0.198	1.73	1.390	1.82	1.92
Nickel	0.2	5	2.22	3.27	1.697	0.759	4.75	2.48	5.60	6.27
Phosphorus	10	5	1675	2025	202	90	2202	2070	2172	2180
Potassium	20	5	10650	11370	1153	516	12381	10800	12960	13400
Rubidium	0.05	5	5.10	8.1	3.3	1.48	11.0	7.94	12.5	13.5
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	4	0.0025	0.0077	0.0050	0.0022	0.0120	0.0062	0.0134	0.0137
Sodium	20	1	10	13	8	3	20	10	24	27
Strontium	0.05	5	4.6	7.0	2.4	1.1	9.1	7.7	9.7	10.1
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	1	0.0010	0.0014	-	-	0.0021	0.0010	0.0024	0.0028
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	4	0.13	3.78	7.288	3.259	10.17	0.82	13.6	16.8
Uranium	0.002	1	0.0010	0.0044	-	-	0.0109	0.0010	0.0144	0.0178
Vanadium	0.1	1	0.050	0.208	-	-	0.518	0.050	0.682	0.840
Zinc	0.5	5	8.8	11.3	2.1	1.0	13.1	10.8	14.0	14.6
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-14: Summary Statistics of Metal Concentrations in Soapberry Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Near Field (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation (n = 5)										
Arsenate [As V]	0.025	1	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	1	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	1	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	1	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	1	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	1	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-15: Summary Statistics of Metal Concentrations in Blueberry Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, Near Field (n = 3; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.50	3	74.6	82.2	6.9	4.0	90.0	84.2	87.5	87.9
Aluminum	2	3	19.0	41.8	30.4	17.6	76.2	30.0	72	76
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	2	0.010	0.017	-	-	0.025	0.020	0.022	0.022
Barium	0.05	3	12.50	14.7	2.3	1.33	17.3	14.6	16.9	17.1
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	3	3.00	7.2	3.67	2.12	11.4	9.1	9.6	9.6
Cadmium	0.005	3	0.0058	0.0078	0.002	0.001	0.0101	0.0078	0.0096	0.010
Calcium	20	3	845	977	186	108	1188	896	1161	1190
Cesium	0.005	3	0.0132	0.015	0.00	0.001	0.02	0.0150	0.02	0.0
Chromium	0.05	1	0.025	0.068	-	-	0.153	0.025	0.142	0.155
Cobalt	0.02	1	0.010	0.015	-	-	0.025	0.010	0.024	0.025
Copper	0.1	3	4.33	5.64	1.20	0.69	6.99	5.90	6.60	6.68
Iron	3	3	14.8	28.6	22.0	12.7	54	17.0	50	54
Lead	0.02	1	0.01	0.0183	-	-	0.0347	0.0100	0.0325	0.0350
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	3	458	579	167	96	767	509	743	769
Manganese	0.05	3	116	288	219	126	535	214	502	534
Mercury	0.005	0	0.0025	0.0026	-	-	0.0027	0.0025	0.0027	0.0027
Molybdenum	0.02	3	0.3850	0.425	0.049	0.028	0.48	0.411	0.47	0.48
Nickel	0.2	3	0.22	0.27	0.061	0.035	0.34	0.26	0.33	0.34
Phosphorus	10	3	1630	1673	38	22	1716	1690	1699	1700
Potassium	20	3	5410	7650	1960	1132	9868	8490	8994	9050
Rubidium	0.05	3	5.61	8.4	2.4	1.41	11.2	9.38	10.1	10.2
Selenium	0.05	0	0.025	0.025	0.000	0.000	0.025	0.025	0.025	0.025
Silver	0.005	1	0.0025	0.0050	-	-	0.0099	0.0025	0.0093	0.0100
Sodium	20	2	10	28	20	12	51	23	47	50
Strontium	0.05	3	3.1	4.5	2.2	1.3	7.0	3.4	6.7	7.1
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	1	0.050	0.497	0.774	0.447	1.372	0.050	1.26	1.390
Titanium	0.25	1	0.13	0.78	1.129	0.652	2.05	0.13	1.88	2.1
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	3	5.5	8.2	2.4	1.4	10.8	8.9	10.0	10.1
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-15: Summary Statistics of Metal Concentrations in Blueberry Samples, Near Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, Near Field (n = 3; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation (n = 3)										
Arsenate [As V]	0.025	1	0.01250	0.01733	-	-	0.02681	0.01250	0.02555	0.02700
Arsenite [As III]	0.0050	1	0.00250	0.00340	-	-	0.00516	0.00250	0.00493	0.00520
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-16: Summary Statistics of Metal Concentrations in Willow Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Willow, Mid Field (n = 11; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	11	60.8	65.7	3.2	1.0	67.6	66.6	69.5	70.8
Aluminum	2	11	4.6	14.7	8.7	2.6	19.9	12.7	28	35
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	9	0.010	0.037	0.024	0.007	0.051	0.028	0.070	0.073
Barium	0.05	11	4.36	19.7	12.4	3.7	27.0	19.4	38.0	42
Beryllium	0.01	1	0.005	0.007	-	-	0.010	0.005	0.015	0.024
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	11	2.80	13.9	9.00	2.71	19.3	12.8	26.4	26.4
Cadmium	0.005	11	0.0872	0.897	0.622	0.187	1.26	0.801	1.92	2.21
Calcium	20	11	8540	14245	2974	897	16002	13700	18650	20200
Cesium	0.005	11	0.0071	1.507	4.55	1.372	4.20	0.0214	8.06	15.2
Chromium	0.05	4	0.025	0.042	-	-	0.054	0.025	0.071	0.075
Cobalt	0.02	11	0.160	0.585	0.390	0.117	0.815	0.502	1.23	1.26
Copper	0.1	11	2.87	4.19	0.89	0.27	4.71	4.04	5.45	6.01
Iron	3	11	41.8	64.6	23.8	7.2	79	61.2	103	122
Lead	0.02	2	0.01	0.0127	-	-	0.0164	0.0100	0.0250	0.0280
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	11	1710	3514	1678	506	4505	2780	6410	7480
Manganese	0.05	11	75	290	187	57	401	267	569	723
Mercury	0.005	11	0.0067	0.0094	0.0023	0.0007	0.0108	0.0090	0.0133	0.0140
Molybdenum	0.02	11	0.1710	1.096	1.042	0.314	1.71	0.666	2.84	3.27
Nickel	0.2	9	0.10	0.56	0.45	0.14	0.82	0.46	1.28	1.61
Phosphorus	10	11	1805	2910	923	278	3455	2710	4340	4890
Potassium	20	11	4990	15850	5808	1751	19282	18400	22050	23500
Rubidium	0.05	11	3.10	14.8	12.4	3.74	22.1	11.25	34.1	35.2
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	3	0.0025	0.0042	-	-	0.0057	0.0025	0.0085	0.0092
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	11	39	92	29	9	110	95	129	129
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	7	0.0010	0.0063	0.0118	0.0036	0.0132	0.0024	0.0243	0.0412
Tin	0.1	3	0.050	0.065	-	-	0.080	0.050	0.115	0.120
Titanium	0.25	11	0.32	0.79	0.59	0.18	1.14	0.56	1.94	2.3
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	11	28.3	69.3	48.4	14.6	98	47.8	160	161
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-17: Summary Statistics of Metal Concentrations in Sedge Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Sedge, Mid Field (n = 10; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	10	57.6	62.9	2.8	0.9	64.6	62.6	67.1	67.4
Aluminum	2	10	3.6	10.8	7.5	2.4	15.4	6.5	22	24
Antimony	0.01	1	0.005	0.009	-	-	0.017	0.005	0.028	0.047
Arsenic	0.02	5	0.010	0.094	0.178	0.056	0.204	0.014	0.378	0.585
Barium	0.05	10	9.44	41.8	24.0	7.58	56.7	41.1	72.4	74
Beryllium	0.01	1	0.005	0.006	-	-	0.007	0.005	0.009	0.013
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	10	2.90	6.1	2.35	0.74	7.5	5.4	9.1	9.4
Cadmium	0.005	9	0.0025	0.017	0.016	0.005	0.027	0.0136	0.042	0.057
Calcium	20	10	3440	5786	2327	736	7228	5035	9637	11000
Cesium	0.005	9	0.0025	3.624	10.19	3.224	9.94	0.2445	18.67	32.6
Chromium	0.05	5	0.025	0.043	-	-	0.054	0.038	0.065	0.067
Cobalt	0.02	8	0.010	0.051	0.036	0.011	0.074	0.048	0.11	0.14
Copper	0.1	10	0.77	3.75	1.61	0.51	4.75	4.07	5.81	6.55
Iron	3	10	8.2	79.4	49.4	15.6	110	60.3	150	156
Lead	0.02	2	0.01	0.0129	-	-	0.0168	0.0100	0.0248	0.0270
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	10	730	1504	639	202	1900	1260	2612	2630
Manganese	0.05	10	259	487	220	70	623	410	860	988
Mercury	0.005	10	0.0055	0.0069	0.0014	0.0004	0.0078	0.0065	0.0094	0.0101
Molybdenum	0.02	10	0.1560	4.134	3.453	1.092	6.27	3.985	9.8	9.9
Nickel	0.2	3	0.10	0.19	-	-	0.28	0.10	0.45	0.50
Phosphorus	10	10	1290	1806	345	109	2020	1785	2251	2260
Potassium	20	10	8880	14199	3963	1253	16655	14500	18955	19000
Rubidium	0.05	10	2.91	18.0	17.7	5.60	29.0	11.81	47.2	48.3
Selenium	0.05	1	0.025	0.033	-	-	0.048	0.025	0.068	0.104
Silver	0.005	7	0.0025	0.0084	0.006	0.002	0.0124	0.0072	0.0190	0.0236
Sodium	20	1	10	11	-	-	14	10	17	22
Strontium	0.05	10	17	39	15	5	48	39	60	65
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	4	0.0010	0.0035	0.0047	0.0015	0.0065	0.0010	0.0122	0.0153
Tin	0.1	4	0.050	0.169	0.170	0.054	0.274	0.050	0.421	0.430
Titanium	0.25	8	0.13	0.41	0.209	0.066	0.54	0.39	0.72	0.7
Uranium	0.002	1	0.0010	0.0020	-	-	0.0040	0.0010	0.0065	0.0110
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	10	14.5	32.8	12.1	3.8	40.3	34.6	46.7	46.8
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-18: Summary Statistics of Metal Concentrations in Labrador Tea Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, Mid Field (n = 9; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	9	50.4	54.3	2.6	0.9	56.0	54.1	57.8	59.3
Aluminum	2	9	13.2	26.4	9.6	3.2	32.7	25.6	41	46
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Barium	0.05	9	44.60	71.2	17.7	5.91	82.8	69.2	99.1	104
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	9	3.30	14.5	6.75	2.25	18.9	16.8	22.3	23.7
Cadmium	0.005	1	0.0025	0.0036	-	-	0.0057	0.0025	0.0083	0.012
Calcium	20	9	4040	5041	821	274	5577	4870	6236	6460
Cesium	0.005	9	0.0105	0.072	0.13	0.042	0.15	0.0306	0.27	0.4
Chromium	0.05	3	0.025	0.037	-	-	0.048	0.025	0.064	0.065
Cobalt	0.02	4	0.010	0.019	-	-	0.027	0.010	0.039	0.039
Copper	0.1	9	2.42	3.13	0.59	0.20	3.52	3.02	3.96	3.97
Iron	3	9	28.4	37.8	7.4	2.5	43	35.1	48	48
Lead	0.02	1	0.01	0.0129	-	-	0.0186	0.0100	0.0256	0.0360
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	9	865	1142	184	61	1262	1140	1396	1410
Manganese	0.05	9	310	1220	624	208	1628	1400	2068	2240
Mercury	0.005	9	0.0058	0.0095	0.0025	0.0008	0.0111	0.0106	0.0123	0.0131
Molybdenum	0.02	9	0.0980	0.601	0.696	0.232	1.06	0.357	1.73	2.35
Nickel	0.2	2	0.10	0.16	-	-	0.24	0.10	0.38	0.40
Phosphorus	10	9	1240	1486	212	71	1624	1450	1818	1930
Potassium	20	9	5140	6222	853	284	6779	6225	7466	8110
Rubidium	0.05	9	3.43	10.4	10.5	3.49	17.2	7.71	27.0	37.3
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	9	9.3	19	8	3	24	17	29	29
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	2	0.0010	0.0025	0.003	0.001	0.0047	0.0010	0.0085	0.0109
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	9	0.39	0.80	0.34	0.11	1.02	0.74	1.36	1.6
Uranium	0.002	1	0.0010	0.0012	-	-	0.0016	0.0010	0.0021	0.0029
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	9	19.9	24.9	5.9	2.0	28.7	22.4	34.7	39.3
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-18: Summary Statistics of Metal Concentrations in Labrador Tea Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, Mid Field (n = 9; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-19: Summary Statistics of Metal Concentrations in Huckleberry Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, Mid Field (n = 2; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	2	85.6	85.9	0.4	0.3	86.3	85.9	86.1	86.1
Aluminum	2	2	24.0	26.9	4.1	2.9	32.6	26.9	30	30
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	1	0.010	0.038	-	-	0.091	0.038	0.062	0.065
Barium	0.05	2	9.58	17.4	11.0	7.81	32.7	17.4	24.4	25
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	2	3.30	6.1	3.96	2.80	11.6	6.1	8.6	8.9
Cadmium	0.005	2	0.0093	0.0095	0.000	0.000	0.0099	0.0095	0.0097	0.010
Calcium	20	2	776	1313	759	537	2366	1313	1796	1850
Cesium	0.005	2	0.0829	1.171	1.54	1.089	3.30	1.1715	2.15	2.3
Chromium	0.05	1	0.025	0.045	-	-	0.083	0.045	0.062	0.064
Cobalt	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Copper	0.1	2	5.26	5.43	0.24	0.17	5.76	5.43	5.58	5.60
Iron	3	2	18.8	19.3	0.7	0.5	20	19.3	20	20
Lead	0.02	1	0.01	0.0175	-	-	0.0322	0.0175	0.0243	0.0250
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	2	583	751	238	168	1080	751	902	919
Manganese	0.05	2	250	290	57	40	368	290	326	330
Mercury	0.005	0	0.0025	0.0026	-	-	0.0026	0.0026	0.0026	0.0026
Molybdenum	0.02	2	0.1580	0.311	0.216	0.153	0.61	0.311	0.45	0.46
Nickel	0.2	1	0.10	0.30	-	-	0.68	0.30	0.47	0.49
Phosphorus	10	2	1720	2100	537	380	2845	2100	2442	2480
Potassium	20	2	7890	7955	92	65	8082	7955	8014	8020
Rubidium	0.05	2	24.00	32.9	12.6	8.90	50.3	32.90	40.9	41.8
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	2	35	46	16	11	68	46	56	57
Strontium	0.05	2	1.6	2.6	1.4	1.0	4.5	2.6	3.5	3.6
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	1	0.050	0.71	0.93	0.66	2.00	0.710	1.3	1.4
Titanium	0.25	0	0.13	0.13	-	-	0.13	0.13	0.13	0.1
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	2	7.6	9.8	3.1	2.2	14.1	9.8	11.8	12.0
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-19: Summary Statistics of Metal Concentrations in Huckleberry Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, Mid Field (n = 2; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	1	0.00250	0.01045	-	-	0.02603	0.01045	0.01761	0.01840
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-20: Summary Statistics of Metal Concentrations in Soapberry Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Mid Field (n = 6; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	6	72.3	78.0	3.8	1.6	81.0	77.8	82.7	83.8
Aluminum	2	5	1.0	6.1	5.7	2.3	10.6	4.0	14	16
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Barium	0.05	6	1.20	2.0	1.1	0.45	2.9	1.6	3.6	4.1
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	6	7.90	12.1	3.10	1.27	14.6	12.4	15.8	16.5
Cadmium	0.005	6	0.0051	0.0093	0.005	0.002	0.0137	0.0062	0.0165	0.017
Calcium	20	6	761	904	148	60	1022	882	1093	1120
Cesium	0.005	3	0.0025	0.006	0.00	0.002	0.01	0.0043	0.01	0.0
Chromium	0.05	2	0.025	0.046	-	-	0.078	0.025	0.107	0.125
Cobalt	0.02	2	0.010	0.014	-	-	0.019	0.010	0.023	0.023
Copper	0.1	6	4.05	4.76	0.68	0.28	5.31	4.56	5.69	5.80
Iron	3	6	19.8	25.0	4.9	2.0	29	23.1	32	33
Lead	0.02	1	0.01	0.0132	-	-	0.0194	0.0100	0.0243	0.0290
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	6	530	591	52	21	632	573	656	657
Manganese	0.05	6	10	15	3	1	17	14	18	19
Mercury	0.005	1	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Molybdenum	0.02	6	1.1300	1.561	0.369	0.151	1.86	1.475	2.07	2.17
Nickel	0.2	6	1.59	1.95	0.328	0.134	2.22	1.98	2.29	2.30
Phosphorus	10	6	1800	2037	203	83	2199	2015	2293	2320
Potassium	20	6	8510	10390	1284	524	11417	10665	11875	12200
Rubidium	0.05	6	6.69	8.8	2.3	0.95	10.6	8.24	12.0	12.9
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	5	0.0025	0.0069	0.0027	0.0011	0.0090	0.0076	0.0098	0.0104
Sodium	20	1	10	15	-	-	24	10	32	39
Strontium	0.05	6	4.5	5.8	1.3	0.5	6.8	5.6	7.2	7.3
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	1	0.050	0.092	-	-	0.173	0.050	0.238	0.300
Titanium	0.25	2	0.13	0.25	0.232	0.095	0.43	0.13	0.6	0.7
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	6	9.0	10.6	1.6	0.7	11.9	10.1	12.9	13.5
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-20: Summary Statistics of Metal Concentrations in Soapberry Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Mid Field (n = 6; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-21: Summary Statistics of Metal Concentrations in Blueberry Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, Mid Field (n = 4; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	4	80.6	84.5	3.5	1.7	87.9	84.2	88.3	89.0
Aluminum	2	4	16.1	33.6	19.1	9.5	52.3	29.0	56	60
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	1	0.010	0.013	-	-	0.019	0.010	0.020	0.022
Barium	0.05	4	11.80	15.8	3.3	1.64	19.0	15.9	19.1	19.5
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	4	3.70	7.8	2.90	1.45	10.7	8.9	9.9	9.9
Cadmium	0.005	4	0.0057	0.0092	0.003	0.001	0.0121	0.0090	0.0124	0.013
Calcium	20	4	1010	1155	147	73	1299	1135	1319	1340
Cesium	0.005	3	0.0025	0.509	0.99	0.497	1.48	0.0164	1.70	2.0
Chromium	0.05	2	0.025	0.059	0.041	0.021	0.099	0.050	0.104	0.109
Cobalt	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Copper	0.1	4	4.84	5.22	0.30	0.15	5.51	5.24	5.51	5.55
Iron	3	4	14.2	23.6	8.8	4.4	32	23.6	32	33
Lead	0.02	1	0.01	0.0135	-	-	0.0204	0.0100	0.0219	0.0240
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	4	602	689	70	35	758	690	762	774
Manganese	0.05	4	191	305	77	39	381	334	358	362
Mercury	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0026
Molybdenum	0.02	4	0.3640	0.516	0.107	0.054	0.62	0.541	0.61	0.62
Nickel	0.2	2	0.10	0.18	-	-	0.26	0.17	0.26	0.26
Phosphorus	10	4	1460	1623	139	69	1758	1620	1771	1790
Potassium	20	4	7010	7763	565	283	8317	7895	8234	8250
Rubidium	0.05	4	5.18	13.3	13.5	6.75	26.5	7.31	29.7	33.4
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	1	0.0025	0.0037	-	-	0.0060	0.0025	0.0065	0.0072
Sodium	20	1	10	18	-	-	33	10	36	41
Strontium	0.05	4	3.0	4.7	1.3	0.6	5.9	4.8	6.0	6.2
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	2	0.050	0.410	0.422	0.211	0.824	0.365	0.83	0.860
Titanium	0.25	2	0.13	0.56	0.550	0.275	1.10	0.42	1.19	1.3
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	4	7.4	8.3	0.7	0.4	9.0	8.4	9.0	9.1
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-21: Summary Statistics of Metal Concentrations in Blueberry Samples, Mid Field Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, Mid Field (n = 4; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	2	0.01250	0.01975	-	-	0.02799	0.01925	0.02770	0.02800
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-22: Summary Statistics of Metal Concentrations in Willow Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Willow, Control (n = 11; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	11	60.1	65.8	4.2	1.3	68.3	65.1	73.3	74.0
Aluminum	2	11	3.5	9.1	2.9	0.9	10.8	8.9	13	13
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	2	0.010	0.017	-	-	0.027	0.010	0.047	0.063
Barium	0.05	11	0.93	32.4	32.5	9.8	51.6	20.2	83.8	93
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	11	3.00	14.1	8.45	2.55	19.0	16.2	25.7	28.6
Cadmium	0.005	11	0.0153	1.136	1.151	0.347	1.82	1.170	3.10	3.59
Calcium	20	11	9310	15755	3720	1122	17954	15300	21050	23700
Cesium	0.005	8	0.0025	0.289	0.80	0.240	0.76	0.0183	1.44	2.7
Chromium	0.05	5	0.025	0.062	0.075	0.023	0.106	0.025	0.176	0.281
Cobalt	0.02	11	0.195	0.563	0.352	0.106	0.771	0.447	1.09	1.28
Copper	0.1	11	0.62	3.69	1.66	0.50	4.67	3.78	5.70	5.88
Iron	3	11	37.1	54.1	16.8	5.1	64	52.0	81	97
Lead	0.02	0	0.01	0.0100	-	-	0.0100	0.0100	0.0100	0.0100
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	11	2200	3719	917	277	4261	3950	4800	5130
Manganese	0.05	11	38	208	128	39	284	224	392	419
Mercury	0.005	11	0.0062	0.0087	0.0015	0.0005	0.0096	0.0087	0.0108	0.0120
Molybdenum	0.02	11	0.1420	0.774	0.417	0.126	1.02	0.819	1.32	1.37
Nickel	0.2	9	0.10	1.11	0.73	0.22	1.54	1.42	2.06	2.16
Phosphorus	10	11	1860	2927	1081	326	3566	2580	4650	5510
Potassium	20	11	9970	14065	3439	1037	16098	13100	20000	22200
Rubidium	0.05	11	2.94	10.2	7.8	2.35	14.8	8.32	23.2	26.0
Selenium	0.05	1	0.025	0.030	-	-	0.040	0.025	0.054	0.082
Silver	0.005	2	0.0025	0.0038	-	-	0.0060	0.0025	0.0098	0.0144
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	11	31	90	50	15	120	80	168	216
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	2	0.0010	0.0015	-	-	0.0022	0.0010	0.0037	0.0045
Tin	0.1	1	0.050	0.055	-	-	0.066	0.050	0.080	0.110
Titanium	0.25	11	0.34	0.64	0.21	0.06	0.76	0.59	0.97	1.0
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	11	18.7	86.6	52.4	15.8	118	80.4	169	197
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-23: Summary Statistics of Metal Concentrations in Sedge Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Sedge, Control (n = 8; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	8	61.5	65.9	3.7	1.3	68.5	65.4	70.9	71.7
Aluminum	2	7	1.0	7.0	5.9	2.1	11.1	5.7	16	18
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	4	0.010	0.034	0.045	0.016	0.065	0.016	0.107	0.140
Barium	0.05	8	13.70	40.5	19.2	6.78	53.8	34.3	68.7	78
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	8	1.85	5.5	3.04	1.08	7.6	5.6	9.8	10.5
Cadmium	0.005	4	0.0025	0.008	0.008	0.003	0.013	0.0050	0.021	0.024
Calcium	20	8	4020	5795	1202	425	6628	6210	7111	7300
Cesium	0.005	8	0.0063	0.312	0.47	0.168	0.64	0.1680	1.05	1.5
Chromium	0.05	5	0.025	0.073	0.057	0.020	0.113	0.059	0.165	0.183
Cobalt	0.02	7	0.010	0.060	0.042	0.015	0.089	0.049	0.12	0.15
Copper	0.1	8	0.45	1.58	1.18	0.42	2.40	1.18	3.40	3.44
Iron	3	8	31.8	65.8	31.5	11.1	88	58.4	115	128
Lead	0.02	0	0.01	0.0100	-	-	0.0100	0.0100	0.0100	0.0100
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	8	1075	1613	574	203	2011	1555	2491	2830
Manganese	0.05	8	93	408	149	53	511	433	546	552
Mercury	0.005	6	0.0025	0.0061	0.0026	0.0009	0.0079	0.0064	0.0094	0.0102
Molybdenum	0.02	8	0.2470	4.973	4.432	1.567	8.04	3.450	11.7	12.0
Nickel	0.2	1	0.10	0.12	-	-	0.16	0.10	0.20	0.26
Phosphorus	10	8	1240	1693	363	128	1944	1680	2228	2270
Potassium	20	8	7060	14776	4297	1519	17754	15000	19850	20200
Rubidium	0.05	8	2.89	10.2	5.2	1.85	13.8	8.97	17.2	17.7
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	1	0.0025	0.0035	-	-	0.0053	0.0025	0.0074	0.0101
Sodium	20	1	10	27	-	-	61	10	100	149
Strontium	0.05	8	22	30	8	3	35	27	42	43
Tellurium	0.02	1	0.010	0.012	-	-	0.015	0.010	0.018	0.023
Thallium	0.002	3	0.0010	0.0028	0.0028	0.0010	0.0047	0.0010	0.0074	0.0079
Tin	0.1	4	0.050	0.135	0.101	0.036	0.205	0.100	0.283	0.300
Titanium	0.25	6	0.13	0.47	0.492	0.174	0.81	0.37	1.25	1.6
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	8	8.7	26.1	15.1	5.3	36.5	20.9	46.1	47.8
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-24: Summary Statistics of Metal Concentrations in Labrador Tea Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, Control (n = 6; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	6	51.5	54.7	2.2	0.9	56.4	54.7	57.4	57.8
Aluminum	2	6	6.3	21.4	25.2	10.3	41.5	11.7	59	72
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	1	0.010	0.012	-	-	0.015	0.010	0.018	0.020
Barium	0.05	6	46.30	71.7	23.1	9.45	90.2	69.5	104.0	114
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	6	9.20	14.5	4.40	1.79	18.0	14.3	20.3	21.3
Cadmium	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.003
Calcium	20	6	4490	5623	807	330	6269	5860	6483	6610
Cesium	0.005	6	0.0078	0.117	0.16	0.065	0.25	0.0544	0.36	0.4
Chromium	0.05	3	0.025	0.085	0.104	0.043	0.169	0.042	0.241	0.293
Cobalt	0.02	2	0.010	0.015	-	-	0.022	0.010	0.029	0.033
Copper	0.1	6	1.74	2.73	0.59	0.24	3.20	2.82	3.33	3.36
Iron	3	6	25.1	36.6	9.3	3.8	44	39.2	46	47
Lead	0.02	1	0.01	0.0108	-	-	0.0125	0.0100	0.0138	0.0150
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	6	1090	1308	254	104	1511	1218	1675	1740
Manganese	0.05	6	225	964	676	276	1505	823	1920	2220
Mercury	0.005	6	0.0099	0.0112	0.0010	0.0004	0.0119	0.0114	0.0121	0.0121
Molybdenum	0.02	6	0.0820	0.604	0.592	0.242	1.08	0.458	1.46	1.76
Nickel	0.2	2	0.10	0.16	-	-	0.24	0.10	0.31	0.34
Phosphorus	10	6	1220	1398	188	77	1548	1345	1653	1690
Potassium	20	6	4940	5918	769	314	6532	6098	6718	6810
Rubidium	0.05	6	2.97	9.5	5.0	2.02	13.5	8.92	15.9	16.9
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	6	5.9	20	11	4	28	20	32	33
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	6	0.46	0.80	0.37	0.15	1.10	0.73	1.27	1.3
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	6	23.2	25.9	3.0	1.2	28.3	25.4	29.5	30.0
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-24: Summary Statistics of Metal Concentrations in Labrador Tea Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Labrador Tea, Control (n = 6; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-25: Summary Statistics of Metal Concentrations in Huckleberry Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, Control (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	5	86.0	87.8	1.6	0.7	89.2	88.5	89.4	89.6
Aluminum	2	5	24.4	33.1	7.5	3.3	39.6	30.7	42	44
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Barium	0.05	5	10.80	15.0	3.6	1.59	18.1	13.6	19.3	20
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	5	7.30	8.3	0.83	0.37	9.0	7.9	9.1	9.2
Cadmium	0.005	3	0.0025	0.0081	0.008	0.004	0.0150	0.0058	0.0189	0.022
Calcium	20	5	978	1158	172	77	1308	1090	1352	1360
Cesium	0.005	5	0.0195	0.090	0.08	0.035	0.16	0.0827	0.19	0.2
Chromium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Cobalt	0.02	1	0.010	0.014	0.008	0.004	0.021	0.010	0.025	0.029
Copper	0.1	5	3.50	5.13	1.22	0.54	6.19	5.43	6.31	6.37
Iron	3	5	11.8	14.4	1.8	0.8	16	14.8	16	16
Lead	0.02	0	0.01	0.0100	-	-	0.0100	0.0100	0.0100	0.0100
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	5	616	699	75	34	764	718	781	791
Manganese	0.05	5	158	236	53	23	282	254	288	294
Mercury	0.005	1	0.0025	0.0029	-	-	0.0034	0.0025	0.0037	0.0040
Molybdenum	0.02	5	0.0970	0.404	0.426	0.190	0.78	0.220	0.99	1.14
Nickel	0.2	2	0.10	0.28	0.259	0.116	0.51	0.10	0.61	0.65
Phosphorus	10	5	1200	1675	303	136	1941	1680	1954	1965
Potassium	20	5	7200	8303	1237	553	9387	8010	9969	10400
Rubidium	0.05	5	16.20	19.9	3.9	1.75	23.3	18.80	25.1	26.6
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	5	1.8	2.8	0.9	0.4	3.6	3.3	3.6	3.6
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	1	0.050	0.09	0.09	0.04	0.17	0.050	0.2	0.3
Titanium	0.25	1	0.13	0.13	0.000	0.000	0.13	0.13	0.13	0.1
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	5	6.1	8.0	1.8	0.8	9.6	8.1	10.1	10.4
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-25: Summary Statistics of Metal Concentrations in Huckleberry Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Huckleberry, Control (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	1	0.00250	0.00310	-	-	0.00428	0.00250	0.00490	0.00550
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-26: Summary Statistics of Metal Concentrations in Soapberry Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Control (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	5	76.1	78.9	3.2	1.4	81.7	77.7	82.7	83.1
Aluminum	2	5	2.3	2.9	0.4	0.2	3.3	3.0	3	3
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Barium	0.05	5	0.79	1.5	0.5	0.22	1.9	1.4	2.0	2.2
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	5	8.70	11.3	2.71	1.21	13.7	11.5	14.8	15.6
Cadmium	0.005	4	0.0025	0.0077	0.004	0.002	0.0109	0.0094	0.0109	0.011
Calcium	20	5	573	846	220	98	1039	827	1111	1150
Cesium	0.005	0	0.0025	0.003	-	-	0.00	0.0025	0.00	0.0
Chromium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Cobalt	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Copper	0.1	5	3.00	4.16	1.13	0.51	5.15	3.70	5.51	5.61
Iron	3	5	17.9	23.7	5.2	2.3	28	23.8	30	32
Lead	0.02	0	0.01	0.0100	-	-	0.0100	0.0100	0.0100	0.0100
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	5	484	588	72	32	651	606	656	660
Manganese	0.05	5	9	13	2	1	15	13	15	15
Mercury	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Molybdenum	0.02	5	1.4200	2.518	1.471	0.658	3.81	2.010	4.53	5.09
Nickel	0.2	5	1.84	2.82	0.781	0.349	3.50	2.65	3.79	3.97
Phosphorus	10	5	1730	1988	183	82	2148	1940	2168	2170
Potassium	20	5	10700	11360	835	374	12092	11100	12500	12800
Rubidium	0.05	5	4.02	8.7	3.2	1.43	11.5	8.65	12.1	12.4
Selenium	0.05	2	0.025	0.067	0.064	0.029	0.123	0.025	0.153	0.169
Silver	0.005	1	0.0025	0.0043	-	-	0.0079	0.0025	0.0099	0.0117
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	5	2.9	4.8	1.3	0.6	5.9	4.5	6.3	6.5
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	0	0.13	0.13	-	-	0.13	0.13	0.1	0.1
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	5	7.7	9.3	1.9	0.8	11.0	8.3	11.6	11.8
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-26: Summary Statistics of Metal Concentrations in Soapberry Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Control (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-27: Summary Statistics of Metal Concentrations in Blueberry Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, Control (n = 3; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	3	83.3	84.1	0.9	0.5	85.1	83.8	85.0	85.1
Aluminum	2	3	13.3	23.9	12.8	7.4	38.4	20.4	36	38
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Barium	0.05	3	11.00	13.8	2.5	1.45	16.6	14.4	15.8	15.9
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	3	10.20	11.7	1.75	1.01	13.6	11.2	13.4	13.6
Cadmium	0.005	2	0.0025	0.0096	0.007	0.004	0.0177	0.0093	0.0161	0.017
Calcium	20	3	957	1189	357	206	1593	1010	1541	1600
Cesium	0.005	1	0.0025	0.004	-	-	0.01	0.0025	0.01	0.0
Chromium	0.05	1	0.025	0.052	-	-	0.105	0.025	0.098	0.106
Cobalt	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Copper	0.1	3	4.18	4.90	0.73	0.42	5.73	4.88	5.56	5.64
Iron	3	3	16.6	18.6	3.2	1.9	22	16.9	22	22
Lead	0.02	1	0.01	0.0230	-	-	0.0485	0.0100	0.0451	0.0490
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	3	602	671	68	39	747	674	731	737
Manganese	0.05	3	254	287	29	17	320	296	309	310
Mercury	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Molybdenum	0.02	3	0.3520	0.898	0.748	0.432	1.74	0.592	1.63	1.75
Nickel	0.2	2	0.10	0.25	0.150	0.087	0.42	0.25	0.39	0.40
Phosphorus	10	3	1600	1683	85	49	1780	1680	1761	1770
Potassium	20	3	8330	9100	670	387	9858	9420	9537	9550
Rubidium	0.05	3	4.67	5.6	1.5	0.89	7.4	4.81	7.1	7.4
Selenium	0.05	0	0.025	0.025	-	-	0.025	0.025	0.025	0.025
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	3	4.6	6.1	1.5	0.9	7.8	5.9	7.5	7.6
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	1	0.050	0.393	-	-	1.066	0.050	0.98	1.080
Titanium	0.25	1	0.13	0.18	-	-	0.30	0.13	0.28	0.3
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Zinc	0.5	3	6.9	7.6	0.6	0.4	8.3	7.8	8.1	8.1
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-27: Summary Statistics of Metal Concentrations in Blueberry Samples, Control Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Blueberry, Control (n = 3; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	3	83.3	84.1	0.9	0.5	85.1	83.8	85.0	85.1
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.0050	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-28: Summary Statistics of Metal Concentrations in Willow Samples, Road Transect Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Willow, Road Transect (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	5	57.2	60.6	3.8	1.7	63.9	59.5	65.7	67.0
Aluminum	2	5	24.8	137.6	102.3	45.8	227.3	138.0	240	240
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	5	0.022	0.098	0.073	0.033	0.162	0.103	0.186	0.201
Barium	0.05	5	4.13	50.9	46.1	20.6	91.3	30.7	110.3	119
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	5	8.80	24.6	12.69	5.67	35.7	27.4	38.3	39.9
Cadmium	0.005	5	0.1960	0.845	0.385	0.172	1.18	1.000	1.12	1.13
Calcium	20	5	8130	17166	6012	2689	22436	19600	22980	23800
Cesium	0.005	5	0.0063	0.018	0.01	0.005	0.03	0.0204	0.03	0.0
Chromium	0.05	5	0.054	0.214	0.143	0.064	0.339	0.256	0.345	0.346
Cobalt	0.02	5	0.278	0.312	0.029	0.013	0.337	0.314	0.35	0.35
Copper	0.1	5	2.93	3.25	0.28	0.13	3.49	3.31	3.55	3.58
Iron	3	5	63.8	232	155	69	367	241	398	408
Lead	0.02	3	0.01	0.0498	0.040	0.018	0.0848	0.0500	0.0928	0.0950
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	5	2360	2716	365	163	3036	2620	3204	3320
Manganese	0.05	5	73	171	92	41	252	196	270	281
Mercury	0.005	5	0.0068	0.0094	0.0021	0.0009	0.0112	0.0090	0.0120	0.0124
Molybdenum	0.02	5	0.2350	0.464	0.283	0.126	0.71	0.291	0.84	0.90
Nickel	0.2	5	0.36	0.94	0.99	0.44	1.80	0.56	2.28	2.69
Phosphorus	10	5	2680	3086	379	169	3418	3000	3566	3640
Potassium	20	5	10100	11140	823	368	11862	11600	11800	11800
Rubidium	0.05	5	2.61	4.4	2.8	1.27	6.9	3.20	8.3	9.5
Selenium	0.05	1	0.025	0.038	-	-	0.064	0.025	0.078	0.091
Silver	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	5	41	97	37	17	130	113	132	137
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	2	0.0010	0.0016	-	-	0.0024	0.0010	0.0027	0.0028
Tin	0.1	1	0.050	0.066	-	-	0.097	0.050	0.114	0.130
Titanium	0.25	5	1.89	6.80	5.00	2.24	11.19	5.65	13.11	14.0
Uranium	0.002	3	0.0010	0.0050	0.005	0.002	0.0093	0.0038	0.0114	0.0125
Vanadium	0.1	4	0.050	0.506	0.406	0.182	0.862	0.500	0.940	0.960
Zinc	0.5	5	51.6	93.9	36.9	16.5	126	93.8	139	147
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-29: Summary Statistics of Metal Concentrations in Sedge Samples, Road Transect Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Sedge, Road Transect (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	5	52.8	63.0	8.0	3.6	70.0	65.0	71.3	72.1
Aluminum	2	5	28.3	60.2	21.0	9.4	78.6	62.7	80	80
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	4	0.010	0.091	0.085	0.038	0.166	0.066	0.200	0.215
Barium	0.05	5	17.00	51.0	33.3	14.88	80.2	40.2	95.2	106
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	5	2.00	8.6	6.39	2.86	14.2	7.5	15.3	15.4
Cadmium	0.005	4	0.0025	0.025	0.024	0.011	0.046	0.0183	0.057	0.062
Calcium	20	5	3890	5380	1274	570	6497	5690	6584	6600
Cesium	0.005	5	0.0092	0.032	0.02	0.010	0.05	0.0341	0.06	0.1
Chromium	0.05	5	0.082	0.144	0.041	0.018	0.180	0.144	0.187	0.192
Cobalt	0.02	5	0.036	0.136	0.184	0.082	0.296	0.063	0.38	0.46
Copper	0.1	5	1.39	2.80	1.16	0.52	3.83	2.96	3.95	3.97
Iron	3	5	57.8	181	163	73	323	148	401	462
Lead	0.02	5	0.03	0.0368	0.005	0.002	0.0415	0.0350	0.0428	0.0430
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	5	506	1294	738	330	1941	1460	2046	2090
Manganese	0.05	5	221	639	449	201	1033	526	1195	1260
Mercury	0.005	5	0.0060	0.0087	0.0020	0.0009	0.0105	0.0088	0.0108	0.0109
Molybdenum	0.02	5	1.0900	1.760	0.644	0.288	2.32	1.600	2.6	2.8
Nickel	0.2	3	0.10	0.20	0.105	0.047	0.30	0.21	0.33	0.34
Phosphorus	10	5	1710	1954	156	70	2090	1940	2090	2090
Potassium	20	5	12600	15820	3306	1478	18717	14900	20060	20700
Rubidium	0.05	5	3.73	8.5	3.5	1.55	11.6	8.39	12.2	12.5
Selenium	0.05	1	0.025	0.044	-	-	0.082	0.025	0.103	0.122
Silver	0.005	2	0.0025	0.0041	-	-	0.0061	0.0025	0.0068	0.0069
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	5	21	30	8	4	37	27	40	42
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	1	0.0010	0.0013	-	-	0.0020	0.0010	0.0024	0.0027
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	5	1.52	3.38	2.118	0.947	5.23	2.62	6.03	6.3
Uranium	0.002	3	0.0010	0.0037	0.005	0.002	0.0078	0.0022	0.0101	0.0120
Vanadium	0.1	4	0.050	0.224	0.156	0.070	0.361	0.210	0.422	0.460
Zinc	0.5	5	14.1	26.4	10.1	4.5	35.2	25.1	38.7	40.6
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

Table D-30: Summary Statistics of Metal Concentrations in Soapberry Samples, Road Transect Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Road Transect (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Moisture (%)	0.5	5	76.8	78.2	1.1	0.5	79.2	78.6	79.3	79.5
Aluminum	2	5	10.0	25.2	19.4	8.7	42.2	19.6	52	58
Antimony	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Arsenic	0.02	1	0.010	0.013	-	-	0.019	0.010	0.022	0.025
Barium	0.05	5	1.33	2.3	0.8	0.34	3.0	2.3	3.2	3
Beryllium	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Bismuth	0.01	0	0.005	0.005	-	-	0.005	0.005	0.005	0.005
Boron	1	5	6.80	8.8	1.44	0.64	10.1	9.3	10.2	10.4
Cadmium	0.005	5	0.0083	0.0120	0.003	0.001	0.0146	0.0117	0.0156	0.017
Calcium	20	5	606	862	193	86	1031	912	1055	1070
Cesium	0.005	4	0.0025	0.008	0.00	0.002	0.01	0.0083	0.01	0.0
Chromium	0.05	2	0.025	0.047	-	-	0.073	0.025	0.083	0.086
Cobalt	0.02	3	0.010	0.022	0.014	0.006	0.035	0.022	0.041	0.045
Copper	0.1	5	4.31	5.04	0.50	0.22	5.47	4.99	5.58	5.65
Iron	3	5	24.2	38.4	9.1	4.1	46	39.7	47	47
Lead	0.02	1	0.01	0.0128	-	-	0.0183	0.0100	0.0212	0.0240
Lithium	0.5	0	0.25	0.25	-	-	0.25	0.25	0.25	0.25
Magnesium	2	5	447	563	83	37	635	577	656	673
Manganese	0.05	5	13	17	4	2	21	18	23	24
Mercury	0.005	0	0.0025	0.0025	-	-	0.0025	0.0025	0.0025	0.0025
Molybdenum	0.02	5	1.3000	1.624	0.296	0.132	1.88	1.530	1.94	1.95
Nickel	0.2	5	1.55	2.18	0.658	0.294	2.76	2.19	2.98	3.09
Phosphorus	10	5	1660	2068	280	125	2314	2040	2364	2390
Potassium	20	5	9470	10434	719	322	11064	10200	11180	11200
Rubidium	0.05	5	6.01	6.7	0.5	0.24	7.1	6.77	7.3	7.3
Selenium	0.05	4	0.025	0.076	0.041	0.018	0.112	0.072	0.119	0.121
Silver	0.005	5	0.0066	0.0119	0.004	0.002	0.0157	0.0108	0.0174	0.0186
Sodium	20	0	10	10	-	-	10	10	10	10
Strontium	0.05	5	4.0	6	1	1	7	6	7	7
Tellurium	0.02	0	0.010	0.010	-	-	0.010	0.010	0.010	0.010
Thallium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Tin	0.1	0	0.050	0.050	-	-	0.050	0.050	0.050	0.050
Titanium	0.25	5	0.41	1.18	1.03	0.46	2.08	0.95	2.57	2.9
Uranium	0.002	0	0.0010	0.0010	-	-	0.0010	0.0010	0.0010	0.0010
Vanadium	0.1	1	0.050	0.076	-	-	0.127	0.050	0.154	0.180
Zinc	0.5	5	7.2	10.2	2.3	1.0	12.2	10.5	12.7	12.9
Zirconium	0.2	0	0.10	0.10	-	-	0.10	0.10	0.10	0.10

Table D-30: Summary Statistics of Metal Concentrations in Soapberry Samples, Road Transect Sites

Parameter	Detection Limit (DL)	Samples with Concentrations > DL	Concentration in Soapberry, Road Transect (n = 5; mg/kg dry weight)							
			Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Arsenic Speciation										
Arsenate [As V]	0.025	0	0.01250	0.01250	-	-	0.01250	0.01250	0.01250	0.01250
Arsenite [As III]	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenobetaine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Arsenocholine	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Dimethylarsinic	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250
Monomethylarso	0.005	0	0.00250	0.00250	-	-	0.00250	0.00250	0.00250	0.00250

Notes:

Concentrations are provided in mg/kg dry weight, unless otherwise indicated.

Concentrations below the detection limit have been replaced with 0.5 x detection limit.

"-" means that standard deviation and standard error have not been calculated as mean concentrations were lower than the detection limit or more than 70% of samples were below detection limit.

APPENDIX E RESULTS OF RELATIVE PERCENT DIFFERENCE CALCULATIONS FOR 2021 QA/QC SAMPLES

Table E-1: Relative Percent Differences for Field Split Duplicate Samples of Soil

	Sample ID:	CFMP-SV21-013-Soil and CFMP-QAQC-2021-003-Soil			CFMP-SV21-021-Soil U and CFMP-QAQC-2021-002-Soil U			CFMP-SV21-021-Soil W and CFMP-QAQC-2021-002-Soil W			CFMP-SV-033-Soil and CFMP-QAQC-2021-001-Soil		
	Sample Date:	11-Aug-21			11-Aug-21			11-Aug-21			10-Aug-21		
Parameter	Detection Limit	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)
pH (pH units)	0.1	4.91	4.93	0.4	4.93	4.89	0.8	6.69	6.50	2.9	4.57	4.59	0.4
Aluminum	50	6600	7770	16.3	10000	9850	1.5	449	545	19.3	17600	14900	16.6
Antimony	0.1	0.2	0.22	-	0.22	0.24	-	**0.05**	0.14	-	0.41	0.4	-
Arsenic	0.1	1.71	2.2	25.1	1.81	1.87	3.3	0.42	0.99	80.9	5.6	4.88	13.7
Barium	0.5	41.5	46.8	12.0	44.6	51.8	14.9	57	327	140.6	69	55.9	21.0
Beryllium	0.1	0.13	0.16	-	0.18	0.21	-	**0.05**	**0.05**	-	0.27	0.23	-
Bismuth	0.2	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-
Boron	5	**2.5**	**2.5**	-	**2.5**	**2.5**	-	**2.5**	**2.5**	-	**2.5**	**2.5**	-
Cadmium	0.02	**0.04**	**0.04**	-	0.05	0.06	-	0.15	0.15	2.0	0.08	0.06	-
Calcium	50	1710	2050	18.1	1690	1690	0.0	26900	21800	20.9	1990	1650	18.7
Chromium	0.5	9.64	11.6	18.5	10.3	11.3	9.3	0.52	1.25	-	29.4	22	28.8
Cobalt	0.1	2.26	3.74	49.3	3.38	3.41	0.9	0.36	2.07	140.7	6.59	5.56	17.0
Copper	0.5	3.26	3.74	13.7	3.74	3.64	2.7	2.32	2.52	8.3	10.5	8.38	22.5
Iron	50	11600	15300	27.5	15800	17000	7.3	972	5960	143.9	34900	29900	15.4
Lead	0.5	5.31	6.3	17.1	5.14	5.91	13.9	**0.25**	0.57	-	7.61	7.08	7.2
Lithium	2	3.9	4.7	-	6	6.5	-	**1**	**1**	-	6.8	5.9	-
Magnesium	20	1180	2050	53.9	1660	1500	10.1	2180	1930	12.2	2920	2480	16.3
Manganese	1	128	299	80.1	237	220	7.4	692	6640	162.3	225	204	9.8
Mercury	0.005	0.02	0.02	-	0.03	0.03	6.2	0.06	0.06	15.3	0.05	0.04	22.2
Molybdenum	0.1	0.53	0.63	17.2	0.69	0.81	16.0	0.95	4.5	130.3	1.22	1.03	16.9
Nickel	0.5	4.08	5.12	22.6	5.35	4.95	7.8	0.97	1.51	-	13.2	10.1	26.6
Phosphorus	50	327	382	15.5	650	623	4.2	397	751	61.7	794	610	26.2
Potassium	100	360	490	-	490	460	-	180	260	-	580	500	14.8
Selenium	0.2	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	0.33	-	**0.1**	**0.1**	-
Silver	0.1	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-	0.13	**0.05**	-
Sodium	50	72	89	-	73	70	-	65	59	-	100	92	-
Strontium	0.5	15.5	17.2	10.4	12	13.3	10.3	155	133	15.3	20.8	15.2	31.1
Sulfur	1000	**500**	**500**	-	**500**	**500**	-	**500**	1600	-	**500**	**500**	-
Thallium	0.05	0.05	0.07	-	0.07	0.08	-	**0.025**	**0.025**	-	0.08	0.07	-
Tin	2	**1**	**1**	-	**1**	**1**	-	**1**	**1**	-	**1**	**1**	-
Titanium	1	488	611	22.4	616	506	19.6	12.5	16.4	27.0	1890	1670	12.4
Tungsten	0.5	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-
Uranium	0.05	0.32	0.49	40.0	0.28	0.31	9.6	**0.025**	0.06	-	0.34	0.29	16.7
Vanadium	0.2	30.7	40	26.3	42.1	43	2.1	2.72	1.54	55.4	87.5	77.1	12.6
Zinc	2	25.4	34.4	30.1	50.6	53.2	5.0	30.7	19.1	46.6	61.9	51.8	17.8
Zirconium	1	1.4	1.7	-	2.8	2.5	-	**0.5**	**0.5**	-	8.6	7.6	12.4

Notes:

Concentrations shown in bold font were less than the detection limit (DL). The DL was replaced with concentrations of 0.5 x DL for calculation purposes.

"-" means that relative percent difference (RPD) was not calculated; RPD was only calculated for concentrations greater than 5 x DL (BC ENV 2013).

RPDs higher than 60% shown in red font to identify parameters with high RPDs (as per CCME 2016).

Table E-2: Relative Percent Differences for Field Split Duplicate Samples of Plants and Berries

	Sample ID:	CFMP-SV21-013-WILL and CFMP-QAQC-2021-003-WILL			CFMP-SV21-013-SOAP and CFMP-QAQC-2021-003-SOAP			CFMP-SV21-013-TEA and CFMP-QAQC-2021-003-TEA			CFMP-SV21-021-WILL and CFMP-QAQC-2021-002-WILL			CFMP-SV21-021-SEDG and CFMP-QAQC-2021-002-SEGDE			CFMP-SV21-021-TEA and CFMP-QAQC-2021-002-TEA		
	Sample Date:	11-Aug-21			11-Aug-21			11-Aug-21			11-Aug-21			11-Aug-21			11-Aug-21		
Parameter	Detection Limit	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)
Moisture (%)	0.5	63.9	67.6	5.6	81.4	81.2	0.3	54.7	81.5	39.4	68.0	66.6	2.1	64.5	61.2	5.3	55.4	55.8	0.7
Aluminum	2	11.0	12.6	13.6	5.8	3.1	-	36.9	32.9	11.5	15.0	21.0	33.3	4.6	5.7	-	18.8	21.6	13.9
Antimony	0.01	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-
Arsenic	0.02	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	0.025	**0.010**	-	**0.010**	**0.010**	-
Barium	0.05	13.4	14.1	5.1	1.9	2.1	9.3	53.2	55.6	4.4	3.5	5.9	51.5	52.9	52.2	1.3	77.6	70.4	9.7
Beryllium	0.01	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-
Bismuth	0.01	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-
Boron	1	17.8	21.6	19.3	10.5	10.9	3.7	14.2	13.7	3.6	19.4	20.3	4.5	6.2	5.8	6.7	23.9	23.4	2.1
Cadmium	0.005	0.8140	0.5630	36.5	**0.0025**	0.0059	-	**0.0025**	**0.0025**	-	0.1600	0.0559	96.4	0.0116	0.0267	78.9	**0.0025**	**0.0025**	-
Calcium	20	16400	16200	1.2	822	841	2.3	4450	4040	9.7	11100	15000	29.9	7040	6500	8.0	5550	5940	6.8
Cesium	0.005	0.0110	0.0122	-	**0.0025**	**0.0025**	-	0.0462	0.0447	3.3	0.0230	0.0197	-	0.0713	0.0491	36.9	0.0124	0.0103	-
Chromium	0.05	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	0.065	-	0.054	0.072	-	0.102	**0.025**	-
Cobalt	0.02	0.467	0.478	2.3	**0.010**	**0.010**	-	0.023	0.024	-	0.239	0.188	23.9	**0.010**	**0.010**	-	**0.010**	**0.010**	-
Copper	0.1	4.12	4.30	4.3	4.42	4.59	3.8	3.62	4.20	14.8	2.67	3.06	13.6	3.53	4.68	28.0	2.54	2.82	10.5
Iron	3	43.2	46.4	7.1	24.0	22.1	8.2	47.4	45.4	4.3	71.6	83.2	15.0	58.8	52.9	10.6	47.2	49.5	4.8
Lead	0.02	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-
Lithium	0.5	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-
Magnesium	2	4100	4630	12.1	551	558	1.3	1240	1150	7.5	3720	4340	15.4	1530	1410	8.2	1380	1370	0.7
Manganese	0.05	103	140	30.5	14	16	10.6	1850	1580	15.7	180	192	6.5	362	426	16.2	718	627	13.5
Mercury	0.005	0.0085	0.0092	-	**0.0025**	**0.0025**	-	0.0101	0.0121	-	0.0073	0.0092	-	0.0068	0.0069	-	0.0129	0.0133	-
Molybdenum	0.02	0.45	0.56	21.1	0.68	0.68	0.6	0.24	0.28	14.5	0.63	0.47	28.3	0.99	0.78	23.5	0.41	0.30	30.6
Nickel	0.2	0.66	0.45	-	2.80	3.01	7.2	0.20	0.21	-	**0.10**	**0.10**	-	**0.10**	**0.10**	-	**0.10**	**0.10**	-
Phosphorus	10	3300	2830	15.3	1610	1740	7.8	1500	1420	5.5	2090	1520	31.6	1570	1690	7.4	1340	1260	6.2
Potassium	20	14200	13600	4.3	11100	10200	8.5	5270	5920	11.6	20500	19600	4.5	14300	17900	22.4	6110	6340	3.7
Rubidium	0.05	4.19	4.53	7.8	8.22	8.29	0.9	5.23	5.66	7.9	11.9	10.6	11.6	8.18	9.45	14.4	4.49	4.31	4.1
Selenium	0.05	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-
Silver	0.005	**0.0025**	**0.0025**	-	**0.0025**	0.0053	-	**0.0025**	**0.0025**	-	0.0065	**0.0025**	-	0.0051	0.0076	-	**0.0025**	**0.0025**	-
Sodium	20	**10**	**10**	-	**10**	**10**	-	**10**	**10**	-	**10**	**10**	-	**10**	**10**	-	**10**	**10**	-
Strontium	0.05	106	104	1.9	7.4	8.0	7.7	11.0	10.7	2.8	50.4	64.1	23.9	45.2	40.7	10.5	27.2	31.0	13.1
Tellurium	0.02	**0.01**	**0.01**	-	**0.01**	**0.01**	-	**0.01**	**0.01**	-	**0.01**	**0.01**	-	**0.01**	**0.01**	-	**0.01**	**0.01**	-
Thallium	0.002	**0.001**	0.002	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-
Tin	0.1	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-	0.11	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-
Titanium	0.25	0.960	1.120	-	0.320	**0.125**	-	1.520	1.540	1.3	1.320	1.920	37.0	0.360	0.460	-	1.380	1.830	28.0
Uranium	0.002	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-
Vanadium	0.1	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-
Zinc	0.5	84.0	68.8	19.9	8.1	9.5	15.7	28.1	29.5	4.9	27.2	29.4	7.8	29.3	26.1	11.6	39.7	38.8	2.3
Zirconium	0.2	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-
Arsenic Speciation (Labrador tea and berries only)																			
Arsenate [As V]	0.025				**0.0125**	**0.0125**	-	**0.0125**	**0.0125**	-							**0.0125**	**0.0125**	-
Arsenite [As III]	0.005				**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-
Arsenobetaine [AsB], (as As)	0.005				**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-
Arsenocholine [AsC], (as As)	0.005				**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-
Dimethylarsinic acid [DMA], (as As)	0.005				**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-
Monomethylarsonic acid [MMA], (as As)	0.005				**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-

Notes:

Concentrations shown in bold font were less than the detection limit (DL). The DL was replaced with concentrations of 0.5 x DL for calculation purposes.

"-" means that relative percent difference (RPD) was not calculated; RPD was only calculated for concentrations greater than 5 x DL (BC ENV 2013).

RPDs higher than 60% shown in red font to identify parameters with high RPDs (as per CCME 2016).

Table E-2: Relative Percent Differences for Field Split Duplicate Samples of Plants and Berries

	Sample ID:	CFMP-SV21-021-SOAP and CFMP-QAQC-2021-002-SOAP			CFMP-SV-033-WILL and CFMP-QAQC-2021-001-WILL			CFMP-SV-033-SEDG and CFMP-QAQC-2021-001-SEDG			CFMP-SV-033-TEA and CFMP-QAQC-2021-001-TEA			CFMP-SV-033-HUCK and CFMP-QAQC-2021-001-HUCK		
	Sample Date:	11-Aug-21			10-Aug-21			10-Aug-21			10-Aug-21			10-Aug-21		
Parameter	Detection Limit	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)
Moisture (%)	0.5	80.6	77	4.6	69.9	61	13.6	65.2	67.4	3.3	56.4	59.2	4.8	89.4	88	1.6
Aluminum	2	22.1	10.3	72.8	5.9	6.7	-	2.1	2.6	-	7.6	9.7	-	36.1	36.7	1.7
Antimony	0.01	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-
Arsenic	0.02	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-
Barium	0.05	1.6	1.8	14.6	7.4	4.5	49.5	33.4	31.4	6.2	70.1	77.6	10.2	19.9	19.8	0.5
Beryllium	0.01	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-
Bismuth	0.01	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-	**0.005**	**0.005**	-
Boron	1	11.7	11.4	2.6	9.3	5.6	49.7	1.8	1.9	-	17.1	17.2	0.6	9.2	9.1	1.1
Cadmium	0.005	0.0059	0.0053	-	0.0106	0.0199	-	**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-	0.0058	0.0057	-
Calcium	20	791	821	3.7	17600	13000	30.1	6230	5770	7.7	5610	5930	5.6	1350	1290	4.6
Cesium	0.005	**0.0025**	**0.0025**	-	0.2140	0.1740	20.6	0.2150	0.2150	0.0	0.1070	0.1190	10.6	0.1000	0.0990	1.0
Chromium	0.05	**0.025**	0.224	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	0.560	182.9	**0.025**	**0.025**	-
Cobalt	0.02	0.023	0.023	-	0.368	0.526	35.4	0.188	0.107	54.9	**0.010**	0.023	-	**0.010**	**0.010**	-
Copper	0.1	4.85	5.88	19.2	1.44	1.00	36.1	1.04	0.95	9.1	3.32	3.13	5.9	6.54	6.19	5.5
Iron	3	32.0	33.0	3.1	92.6	102.0	9.7	67.2	64.9	3.5	35.5	50.2	34.3	16.6	15.4	7.5
Lead	0.02	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	**0.010**	-	**0.010**	0.020	-	**0.010**	**0.010**	-
Lithium	0.5	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-	**0.25**	**0.25**	-
Magnesium	2	546	608	10.8	4540	3050	39.3	1110	1040	6.5	1150	1280	10.7	720	715	0.7
Manganese	0.05	25	11	75.1	338	499	38.5	478	392	19.8	898	1010	11.7	261	247	5.5
Mercury	0.005	**0.0025**	**0.0025**	-	0.0138	0.0101	-	0.0106	0.0098	-	0.0105	0.0135	-	0.0054	**0.0025**	-
Molybdenum	0.02	1.95	2.38	19.9	1.06	1.11	4.6	3.18	2.98	6.5	0.58	0.58	0.5	0.24	0.21	13.6
Nickel	0.2	2.10	2.39	12.9	**0.10**	**0.10**	-	**0.10**	**0.10**	-	**0.10**	**0.10**	-	0.50	0.43	-
Phosphorus	10	1750	2150	20.5	2850	2120	29.4	1380	1540	11.0	1440	1640	13.0	2000	1930	3.6
Potassium	20	11300	9760	14.6	15900	12600	23.2	10500	11400	8.2	6260	6610	5.4	8180	8310	1.6
Rubidium	0.05	7.31	7.05	3.6	22.8	18.0	23.5	16.40	16.2	1.2	16.8	17.0	1.2	26.4	26.7	1.1
Selenium	0.05	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-	**0.025**	**0.025**	-
Silver	0.005	0.0053	0.0058	-	**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-
Sodium	20	**10**	**10**	-	**10**	**10**	-	174	124	33.6	**10**	**10**	-	**10**	**10**	-
Strontium	0.05	3.9	5.0	25.4	60.6	45.6	28.3	22.1	21.6	2.3	16.9	18.2	7.4	3.4	3.7	8.6
Tellurium	0.02	**0.01**	**0.01**	-	**0.01**	**0.01**	-	**0.01**	**0.01**	-	**0.01**	**0.01**	-	**0.01**	**0.01**	-
Thallium	0.002	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-
Tin	0.1	**0.05**	**0.05**	-	**0.05**	**0.05**	-	0.31	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-
Titanium	0.25	0.790	0.620	-	0.500	0.590	-	**0.125**	**0.125**	-	0.420	0.620	-	**0.125**	**0.125**	-
Uranium	0.002	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-	**0.001**	**0.001**	-
Vanadium	0.1	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-	**0.05**	**0.05**	-
Zinc	0.5	9.4	10.9	14.7	62.4	76.1	19.8	22.1	24.0	8.2	26.3	28.6	8.4	9.3	8.7	6.2
Zirconium	0.2	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-	**0.1**	**0.1**	-
Arsenic Speciation (Labrador tea and berries only)																
Arsenate [As V]	0.025	**0.0125**	**0.0125**	-							**0.0125**	**0.0125**	-	**0.0125**	**0.0125**	-
Arsenite [As III]	0.005	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-
Arsenobetaine [AsB], (as As)	0.005	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-
Arsenocholine [AsC], (as As)	0.005	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-
Dimethylarsinic acid [DMA], (as As)	0.005	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-
Monomethylarsonic acid [MMA], (as As)	0.005	**0.0025**	**0.0025**	-							**0.0025**	**0.0025**	-	**0.0025**	**0.0025**	-

Notes:

Concentrations shown in bold font were less than the detection limit (DL). The DL was replaced with concentrations of 0.5 x DL for calculation purposes.

"-" means that relative percent difference (RPD) was not calculated; RPD was only calculated for concentrations greater than 5 x DL (BC ENV 2013).

RPDs higher than 60% shown in red font to identify parameters with high RPDs (as per CCME 2016).

APPENDIX F STATISTICAL ANALYSIS REPORT

Appendix F: Statistical Analysis Report

1. DATA SETUP

Soil samples collected in 2021 at U (upland) and W (wetland) at locations CFMP-SV-016, CFMP-SV-028, CFMP-SV-032 and CFMP-SV21-021 were considered as independent samples. QAQC samples collected from CFMP-SV-021, CFMP-SV-013, and CFMP-SV-033 were averaged prior to the analysis.

Concentration data were log transformed to reduce the skewness of the original data. Tables F-1 and F-2 show the number of samples collected for each analyte, species, location, and year.

Table F-1: Number of Sites Included in 2021

Field Location	Soil	Blueberry	Huckleberry	Labrador Tea	Sedge	Soapberry	Willow
Far	13	3	5	6	8	5	11
Mid	13	4	2	9	10	6	11
Near	11	3	5	8	8	5	11
Road	5	0	0	0	5	5	5

Table F-2: Number of Sites Included in 2011/2012

Field Location	Soil	Black Huckleberry	Scrub Birch	Willow
Far	2	0	0	2
Mid	5	0	3	4
Near	13	6	1	8

2. PARAMETER EXCLUSIONS

The following parameters were removed from Soil in 2011/2012 dataset: aluminum, boron, calcium, iron, magnesium, manganese, sodium, strontium and sulfur, as data for these parameters were derived from BC ENV's Background Soil Database and not directly measured.

In each analysis, highly censored parameters (i.e., more than 70% of data below the MDL) were considered unreliable and were not used in any statistical analysis (as per Section 5.2 of the Country Foods Monitoring Plan).

In each analysis the number of samples in each group was calculated. The analysis was performed on the parameters that have at least 8 samples in each group. For smaller samples (n<8), the power of the statistical tests are lower and unable to detect any differences across the groups.

In 2021, data were collected from 'Road' sub location and was used in the LSA-wide statistical comparisons.

3. STATISTICAL ANALYSIS

1) Has soil quality changed between the 2011/2012 dataset and the 2021 dataset?

Methodology: After excluding the parameters as mentioned above, the statistical comparisons were carried on 12 parameters. For each parameter, the data were tested for Normality distributed. In most

cases the assumption was not satisfied, so non-parametric test was used instead of t tests to compare before and after data (Mann-whitney test). In order to control for multiple testing, a Bonferroni correction was applied and each test was assessed relative to a significance level of 0.004.

a. At the LSA-wide level (i.e., all samples in dataset)?

Table F-3 shows the results for each parameter.

Table F-3: Statistical Results for Soil Quality – All

Analyte	Species	Variable	Before_ sample_ size	After_ sample_ size	Normality	Test_ statistic	p_value	Is_ different
Soil	Soil	Arsenic	20	42	FALSE	231.0	0.0045	FALSE
		Barium	20	42	TRUE	141.5	0.0000	TRUE
		Beryllium	20	42	FALSE	279.0	0.0338	FALSE
		Cadmium	20	42	FALSE	386.5	0.6185	FALSE
		Chromium	20	42	FALSE	180.0	0.0003	TRUE
		Cobalt	20	42	FALSE	205.5	0.0013	TRUE
		Copper	20	42	TRUE	349.0	0.2884	FALSE
		Lead	20	42	FALSE	524.0	0.1191	FALSE
		Molybdenum	20	42	FALSE	480.5	0.3659	FALSE
		Nickel	20	42	TRUE	174.0	0.0002	TRUE
		Vanadium	20	42	FALSE	152.0	0.0001	TRUE
		Zinc	20	42	TRUE	116.0	0.0000	TRUE

Conclusions: 50% of the parameters are statistically different between 2011/2012 and 2021.

b. At the sub-area level (i.e., near, mid, control)?

Only “Near” samples were considered in the analysis as there’s no sufficient sample sizes (<8) to conduct statistical analysis in “Mid” and “Far” areas.

Table F-4 shows the results for each parameter.

Table F-4: Statistical Results for Soil Quality – By Locations

Analyte	Species	Location	Variable	Before_ sample_ size	After_ sample_ size	Normality	Test_ statistic	p_value	Is_ different
Soil	Soil	Near	Arsenic	13	11	FALSE	39.0	0.0635	FALSE
			Barium	13	11	FALSE	52.5	0.2837	FALSE
			Beryllium	13	11	FALSE	55.0	0.3440	FALSE
			Cadmium	13	11	FALSE	80.0	0.6408	FALSE
			Chromium	13	11	TRUE	24.0	0.0065	FALSE
			Cobalt	13	11	TRUE	37.0	0.0488	FALSE
			Copper	13	11	FALSE	68.0	0.8620	FALSE
			Lead	13	11	TRUE	78.0	0.7281	FALSE
			Molybdenum	13	11	TRUE	78.0	0.7267	FALSE

Analyte	Species	Location	Variable	Before_ sample_ size	After_ sample_ size	Normality	Test_ statistic	p_value	Is_ different
			Nickel	13	11	TRUE	42.0	0.0929	FALSE
			Vanadium	13	11	TRUE	15.0	0.0012	TRUE
			Zinc	13	11	TRUE	24.0	0.0065	FALSE

Conclusions: Only Vanadium is significantly different between 2011/2012 and 2021.

2) Has plant tissue quality changed between the 2011/2012 dataset and the 2021 dataset?

Only Willow samples was considered in the statistical analysis, as it's the only one sampled both before and after.

Methodology: After excluding the parameters as mentioned above, the statistical comparisons were carried on 16 parameters. For each parameter, the data were tested for Normality distributed. In most cases the assumption was not satisfied, so non-parametric test was used instead of t tests to compare before and after data (Mann-whitney test). In order to control for multiple testing, a Bonferroni correction was applied and each test was assessed relative to a significance level of 0.003.

a. At the LSA-wide level (i.e., all samples in dataset)?

Table F-5 shows the results for each parameter.

Table F-5: Statistical Results for Plant Tissue Quality – All

Analyte	Species	Variable	Before_ sample_ size	After_ sample_ size	Normality	Test_ statistic	p_value	Is_ different
Vege	Willow	Aluminum	14	38	FALSE	290.5	0.6205	FALSE
		Barium	14	38	FALSE	109.0	0.0012	TRUE
		Boron	14	38	FALSE	127.5	0.0044	FALSE
		Cadmium	14	38	FALSE	126.0	0.0040	FALSE
		Calcium	14	38	TRUE	106.0	0.0010	TRUE
		Copper	14	38	FALSE	279.0	0.7965	FALSE
		Iron	14	38	FALSE	270.5	0.9342	FALSE
		Magnesium	14	38	TRUE	196.0	0.1516	FALSE
		Manganese	14	38	TRUE	303.0	0.4514	FALSE
		Mercury	14	38	FALSE	486.0	0.0000	TRUE
		Molybdenum	14	38	TRUE	303.5	0.4453	FALSE
		Phosphorus	14	38	TRUE	167.5	0.0432	FALSE
		Potassium	14	38	TRUE	154.5	0.0220	FALSE
		Strontium	14	38	FALSE	184.5	0.0947	FALSE
		Titanium	14	38	FALSE	403.5	0.0047	FALSE
		Zinc	14	38	FALSE	406.5	0.0039	FALSE

Conclusions: Barium, Calcium and Mercury were significantly different between 2011/2012 and 2021.

b. At the sub-area level (i.e., near, mid, control)?

Only “Near” samples were considered in the analysis as there’s no sufficient sample sizes (<8) to conduct statistical analysis in “mid” and “Far” areas.

Table F-6 shows the results for each parameter.

Table F-6: Statistical Results for Plant Tissue Quality – By Locations*

Analyte	Species	Location	Variable	Before_ sample_ size	After_ sample_ size	Normality	Test_ statistic	p_value	Is_ different
Vege	Willow	Near	Aluminum	8	11	FALSE	42.5	0.9342	FALSE
			Barium	8	11	FALSE	11.0	0.0073	FALSE
			Boron	8	11	TRUE	20.0	0.0521	FALSE
			Cadmium	8	11	TRUE	29.0	0.2312	FALSE
			Calcium	8	11	TRUE	25.5	0.1370	FALSE
			Copper	8	11	FALSE	52.0	0.5355	FALSE
			Iron	8	11	FALSE	48.0	0.7726	FALSE
			Magnesium	8	11	TRUE	40.0	0.7725	FALSE
			Manganese	8	11	TRUE	51.0	0.5915	FALSE
			Mercury	8	11	TRUE	81.0	0.0025	TRUE
			Molybdenum	8	11	TRUE	41.0	0.8364	FALSE
			Phosphorus	8	11	TRUE	25.0	0.1266	FALSE
			Potassium	8	11	TRUE	26.5	0.1602	FALSE
			Strontium	8	11	FALSE	18.0	0.0352	FALSE
			Titanium	8	11	FALSE	67.0	0.0626	FALSE
			Zinc	8	11	TRUE	67.0	0.0627	FALSE

Conclusion: Only Mercury was significantly different in the “Near” area willow samples between 2011/2012 and 2021.

3) Are there any differences between the sub-area levels (i.e., near, mid, control) in Soil?

a. For Soil in 2021 data

Methodology: After excluding the parameters as mentioned in the exclusion criteria, the statistical comparisons across the locations were carried on 30 parameters. For each parameter, the data were tested for Normality distributed. In most cases the assumption was not satisfied, so non-parametric test was used instead of F tests to compare the data (Kruskal-Wallis test). In order to control for multiple testing, a Bonferroni correction was applied and each test was assessed relative to a significance level of 0.002.

Table F-7 shows the results for each parameter.

Table F-7: Statistical Results for Soil Quality in 2021

Analyte	Species	Period	Variable	Near_ sample _size	Mid_ sample _size	Far_ sample _size	Normality	Test_ statistic	p_ value	Is_ different
Soil	Soil	After	Aluminum	11	13	13	FALSE	0.8529	0.6528	FALSE
			Antimony	11	13	13	TRUE	2.9638	0.2272	FALSE
			Arsenic	11	13	13	FALSE	0.9314	0.6277	FALSE
			Barium	11	13	13	FALSE	6.2053	0.0449	FALSE
			Beryllium	11	13	13	TRUE	1.1703	0.5570	FALSE
			Cadmium	11	13	13	TRUE	0.6020	0.7401	FALSE
			Calcium	11	13	13	TRUE	4.5555	0.1025	FALSE
			Chromium	11	13	13	FALSE	1.9601	0.3753	FALSE
			Cobalt	11	13	13	FALSE	5.3562	0.0687	FALSE
			Copper	11	13	13	FALSE	2.7549	0.2522	FALSE
			Iron	11	13	13	FALSE	9.3795	0.0092	FALSE
			Lead	11	13	13	FALSE	0.9683	0.6162	FALSE
			Lithium	11	13	13	FALSE	0.6845	0.7102	FALSE
			Magnesium	11	13	13	FALSE	5.3630	0.0685	FALSE
			Manganese	11	13	13	FALSE	3.5956	0.1657	FALSE
			Mercury	11	13	13	TRUE	1.4261	0.4901	FALSE
			Molybdenum	11	13	13	FALSE	2.5892	0.2740	FALSE
			Nickel	11	13	13	FALSE	5.3112	0.0703	FALSE
			Ph (1:2 Soil:water)	11	13	13	TRUE	8.1516	0.0170	FALSE
			Phosphorus	11	13	13	TRUE	4.4030	0.1106	FALSE
			Potassium	11	13	13	FALSE	1.5339	0.4644	FALSE
			Silver	11	13	13	FALSE	1.4039	0.4956	FALSE
			Sodium	11	13	13	TRUE	1.7332	0.4204	FALSE
			Strontium	11	13	13	TRUE	4.9411	0.0845	FALSE
			Thallium	11	13	13	FALSE	2.7189	0.2568	FALSE
			Titanium	11	13	13	FALSE	4.2516	0.1193	FALSE
			Uranium	11	13	13	FALSE	4.2911	0.1170	FALSE
			Vanadium	11	13	13	FALSE	2.0549	0.3579	FALSE
			Zinc	11	13	13	FALSE	2.5781	0.2755	FALSE
			Zirconium	11	13	13	FALSE	4.0437	0.1324	FALSE

Conclusion: None of the parameters were significantly different across the sub locations for 2021 Soil data.

b. For Soil in 2011/2012 data

There were no sufficient number of soil samples to perform statistical comparisons across sub locations.

4) Are there any differences between the sub-area levels (i.e., near, mid, control) in Plants?

a. For Plants in 2021 data

Methodology: Only Willows and Sedge species were considered for analysis as the other species did not have a sufficient number of samples in each sub location (n<8) to perform statistical comparisons.
After excluding the parameters as mentioned in the exclusion criteria, the statistical comparisons across the locations were carried on 23 parameters from Sedge and 22 parameters from Willows. For each parameter, the data were tested for Normality distributed. In most cases the assumption was not satisfied, so non-parametric test was used instead of F tests to compare the data (Kruskal-Wallis test). In order to control for multiple testing, a Bonferroni correction was applied and each test was assessed relative to a significance level of 0.001.

Table F-8 shows the results for each parameter.

Table F-8: Statistical Results for Plant Tissue Quality in 2021

Analyte	Species	Period	Variable	Near_ sample_ size	Mid_ sample_ size	Far_ sample_ size	Normality	Test_ statistic	p_ value	Is_ different
Vege	Sedge	After	Aluminum	8	10	8	TRUE	4.8362	0.0891	FALSE
			Arsenic	8	10	8	FALSE	0.0859	0.9580	FALSE
			Barium	8	10	8	TRUE	0.4385	0.8031	FALSE
			Boron	8	10	8	TRUE	2.6594	0.2646	FALSE
			Cadmium	8	10	8	FALSE	2.9611	0.2275	FALSE
			Calcium	8	10	8	TRUE	2.0206	0.3641	FALSE
			Cesium	8	10	8	TRUE	0.1949	0.9072	FALSE
			Chromium	8	10	8	FALSE	1.3355	0.5129	FALSE
			Cobalt	8	10	8	TRUE	0.4892	0.7830	FALSE
			Copper	8	10	8	FALSE	9.1854	0.0101	FALSE
			Iron	8	10	8	TRUE	0.3628	0.8341	FALSE
			Magnesium	8	10	8	TRUE	0.4115	0.8140	FALSE
			Manganese	8	10	8	FALSE	1.2282	0.5411	FALSE
			Mercury	8	10	8	FALSE	1.2730	0.5291	FALSE
			Moisture	8	10	8	TRUE	2.9025	0.2343	FALSE
			Molybdenum	8	10	8	TRUE	2.8295	0.2430	FALSE
			Phosphorus	8	10	8	TRUE	0.7979	0.6710	FALSE
			Potassium	8	10	8	TRUE	1.3115	0.5190	FALSE
			Rubidium	8	10	8	TRUE	0.5615	0.7552	FALSE
			Strontium	8	10	8	TRUE	2.0957	0.3507	FALSE
			Thallium	8	10	8	FALSE	1.5620	0.4579	FALSE
			Titanium	8	10	8	FALSE	5.4247	0.0664	FALSE
			Zinc	8	10	8	FALSE	2.7987	0.2468	FALSE
	Willow		Aluminum	11	11	11	FALSE	9.9426	0.0069	FALSE
			Barium	11	11	11	TRUE	1.5613	0.4581	FALSE
			Boron	11	11	11	TRUE	0.0933	0.9544	FALSE

Analyte	Species	Period	Variable	Near_ sample_ size	Mid_ sample_ size	Far_ sample_ size	Normality	Test_ statistic	p_ value	Is_ different
			Cadmium	11	11	11	FALSE	0.2470	0.8838	FALSE
			Calcium	11	11	11	TRUE	1.9867	0.3703	FALSE
			Cesium	11	11	11	FALSE	0.6480	0.7233	FALSE
			Chromium	11	11	11	FALSE	1.1563	0.5609	FALSE
			Cobalt	11	11	11	TRUE	0.0122	0.9939	FALSE
			Copper	11	11	11	FALSE	0.8029	0.6694	FALSE
			Iron	11	11	11	FALSE	0.9003	0.6375	FALSE
			Magnesium	11	11	11	TRUE	1.8438	0.3978	FALSE
			Manganese	11	11	11	TRUE	1.0870	0.5807	FALSE
			Mercury	11	11	11	TRUE	0.2717	0.8730	FALSE
			Moisture	11	11	11	TRUE	0.3098	0.8565	FALSE
			Molybdenum	11	11	11	FALSE	1.3612	0.5063	FALSE
			Nickel	11	11	11	FALSE	3.9827	0.1365	FALSE
			Phosphorus	11	11	11	TRUE	0.5754	0.7500	FALSE
			Potassium	11	11	11	FALSE	1.9387	0.3793	FALSE
			Rubidium	11	11	11	TRUE	1.4358	0.4878	FALSE
			Strontium	11	11	11	FALSE	4.4006	0.1108	FALSE
			Titanium	11	11	11	FALSE	0.5274	0.7682	FALSE
			Zinc	11	11	11	TRUE	0.9703	0.6156	FALSE

Conclusion: None of the parameters were significantly different across the sub locations for 2021 plants tissue data.

b. For Plants in 2011/2012 data

There were no sufficient number of plant tissue samples to perform statistical comparisons across sub locations.