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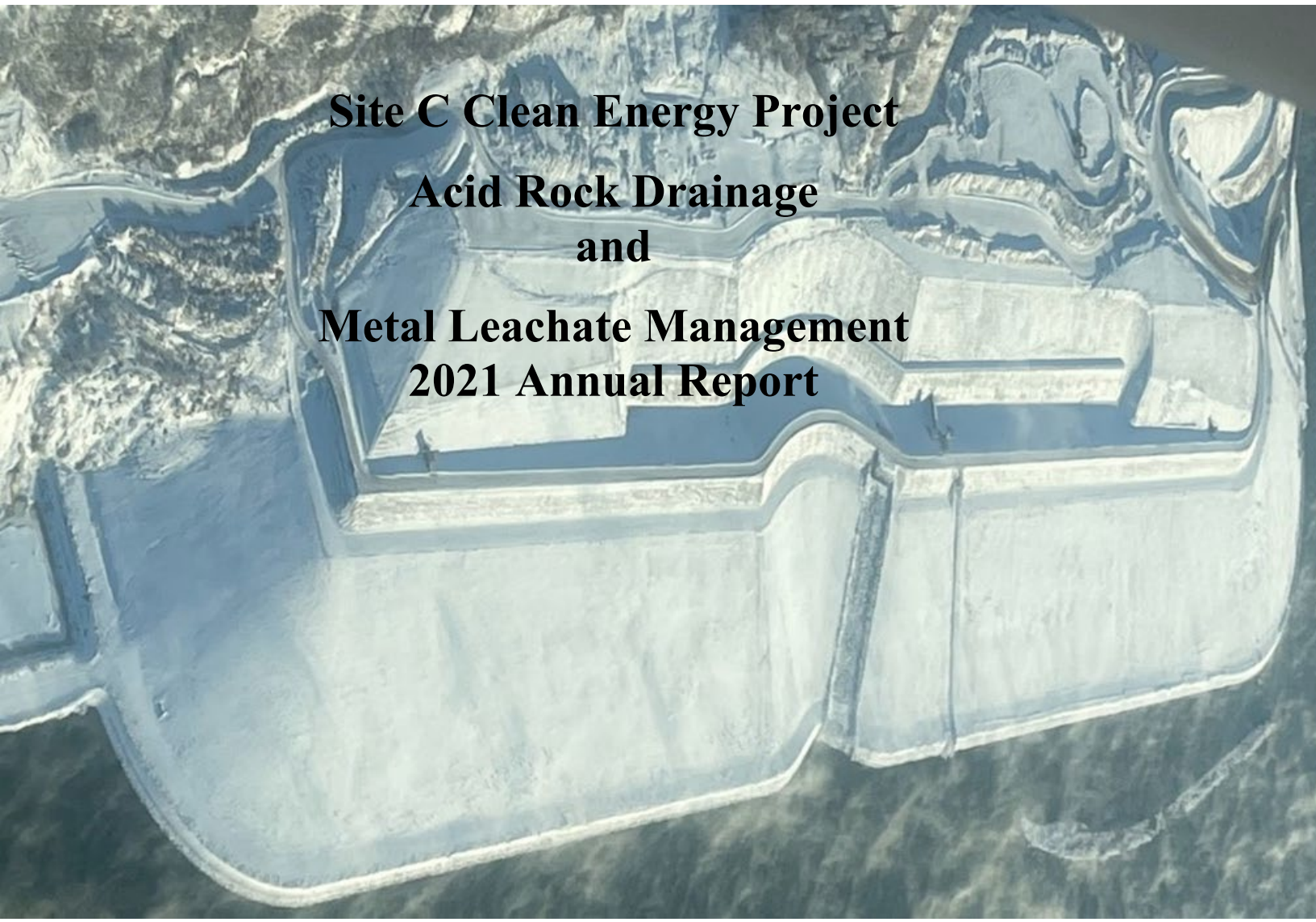

Site C Clean Energy Project

Acid Rock Drainage and Metal Leachate Management 2021 Annual Report

Project No. A416-1

March 1, 2022

LORAX ENVIRONMENTAL

Executive Summary

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HYDRO PARTNERS

Executive Summary

This report summarizes the results of acid rock drainage and metal leachate (ARD/ML) monitoring undertaken in 2021 as part of the Main Civil Works Contract for the Site C Clean Energy Project ('the Project'). This report has been prepared for Peace River Hydro Partners (PRHP), which holds the Main Civil Works Contract, by Lorax Environmental Services Ltd. (Lorax), PRHP's Qualified Professional (QP) for ARD/ML.

This report is intended to summarize the results of monitoring undertaken by PRHP to meet the requirements of the ARD/ML Management Plan prepared by BC Hydro for the Project (BC Hydro, 2016a), which is included as Appendix E of the Construction Environmental Management Plan (CEMP; BC Hydro, 2016b). This report has been prepared to address the annual reporting requirements, which are set out in Section 7.5 of the ARD/ML Management Plan. It describes monitoring from January 1st to December 31st, 2021.

This report summarizes:

- Observations and tests to assess the geochemical characteristics of bedrock that has been disturbed in the course of construction, including bedrock that has been exposed and excavated and relocated, and also crusher sediment pond dredgate and sludge removed from the mobile water treatment facility reactors and settling ponds (Section 2);
- Monitoring of surface water quality within the construction site (Section 3);
- A summary of key findings, including turbidity – TSS relationship at RSEM sediment pond discharge, onset of ARD/ML within the site, mitigation measures employed, the ML/ARD risk levels, a summary of exceedances of project-specific water quality discharge limits, and metal loads discharged to the Peace River (Section 4); and
- Conclusions and recommendations (Section 5).

Surface water quality monitoring for areas outside of PRHP's work areas, and additional monitoring in the Peace River, is undertaken by others on behalf of BC Hydro, and is reported under separate cover.

Excavations and Deposition

The CEMP states that bedrock at the Dam Site has a high potential for ARD and should be managed as potentially acid generating (PAG) or acid generating (AG) material. A total of 1,690,486 m^3 of bedrock was excavated in 2021. This included approximately 1,314,746 m^3 on the Right Bank, mostly from the Approach Channel and Spillway,

373,977 m^3 in the Earthfill Dam area, mostly from the main excavation of the Core Trench, and 1,763 m^3 on the Left Bank, mostly from the Left Bank Drainage Adit. The material excavated in 2021 was placed primarily in RSEM Area R5A and Zone 8 within the Earthfill Dam footprint.

PAG Bedrock Monitoring

ARD/ML monitoring is undertaken in areas where bedrock is exposed or where these materials are stored. Appropriate sampling locations are determined as construction activities proceed (rather than routinely sampling at fixed monitoring stations).

Geochemical analysis of samples collected during the monitoring program include onsite rinse pH measurements to determine surface pH, as well as acid-base accounting (ABA) and metal analysis conducted at an offsite analytical laboratory. In 2021, a total of 270 samples were collected for rinse pH analysis from various locations from the Earthfill Dam and the Left and Right Banks. Of these, approximately 10% of the samples underwent more extensive geochemical testing including ABA and metals analysis. The program was effective at identifying the onset of ARD/ML, and at identifying areas where mitigation is needed, or is likely to be required.

Any bedrock exposed or excavated as part of the Main Civil Works Contract is expected to be PAG, with most stratigraphic units expected to become acidic within one year of being exposed to the atmosphere. Geochemical monitoring undertaken to date has confirmed that this is the case in several locations on both the Left and Right Banks.

Left Bank samples collected from exposed surfaces in AG material were identified in RSEM Area L5 and the Left Bank Excavation (LBEX). RSEM Area L5 is mostly covered with NPAG material, which restricts widespread ARD development from facility. However, the final reconfiguration of the RSEM and placement of cover material is yet to be completed.

Monitoring in the Earthfill Dam indicated that the Core Trench Excavation remained non-AG for the duration of the exposure until it was filled by the Dam Core construction. PAG material placed in Zone 8 showed early signs of ARD progression in 2021 Q3 but has been covered with fresh PAG rock with neutral pH. Monitoring conducted ensured that PAG rock placed as a temporary thermal barrier over the Earthfill Dam Core was pH neutral when placed in 2021 Q4.

On the Right Bank, AG material was identified in the Approach Channel, RSEM Area R5A, and exposures within the RSEM Area R5B catchment. The AG bedrock exposed in the Approach Channel was excavated and placed in RSEM Area R5A. AG samples from RSEM Area R5A were generally clustered at the northwest end of the RSEM area. Continued placement of fresh PAG in Q4 2021 limited AG exposures in RSEM Area R5A.

AG bedrock exposed in the RSEM Area R5B catchment are associated with natural bedrock exposures and inactive roads. The runoff from this area is collected in the Phase 2 R5B Sump, and monitored and treated, if necessary.

Surface Water Quality Monitoring

Surface water quality sampling was undertaken at a total of 74 stations in 2021, including 11 stations on the Left Bank, 12 stations on the Earthfill Dam and river and 51 stations on the Right Bank. Laboratory results for a total of 1,364 surface water quality samples and 216 quality control samples obtained in 2021 from these stations are summarized in this report. The program was effective in identifying trends and anticipating areas where mitigation is required.

In addition, instruments and dataloggers were installed and record continuous *in situ* measurements of surface water quality (pH, conductivity, and turbidity) in the RSEM Area L5, L6, R5A and R6 sediment ponds during times that the ponds were managed to discharge. Field measurements of these parameters were also obtained at the RSEM ponds and other locations to provide insight into conditions across the site.

End-of-pipe (EOP) discharge limits from RSEM sediment ponds for pH, TSS, Cd, Co, Cu and Zn are set out in Table 2 in the BC Hydro ARD/ML Management Plan (BC Hydro, 2016a). Any exceedance of these limits in water discharged from RSEM sediment ponds to the Peace River is reported within 24 hours of receiving analytical results from the laboratory, and all exceedances in RSEM sediment ponds, whether discharged or not, are noted in weekly reports. The project-specific discharge limits for TSS, Cd, Cu and Zn are based on an assumed hardness of 50 mg/L as $CaCO_3$. The hardness of water discharged from the RSEM ponds, and in the Peace River is generally higher. Consequently, minor exceedances of discharge limits for these parameters do not necessarily reflect any meaningful effect on aquatic community health. PAG-contact water discharges are also authorized from the Earthfill Dam but these discharges are required to meet the short-term BC Water Quality Guidelines for the Protection of Aquatic Life. The exceedance of the selenium long-term BC WQG in the Area 30 sediment pond triggered additional monitoring in the adjacent beaver pond.

There were occasions where water discharged to the Peace River from the Earthfill Dam or PAG-containing RSEM sediment ponds had water quality that was reported to have exceeded BC Water Quality Guidelines or EOP discharge limits in 2021. None of these events are attributed to ARD/ML. There were three events including: (i) a single-day concentration spike of T-Zn from the RSEM Area R6E pond on January 6th attributed to sample contamination; (ii) multi-day discharge from the RSEM Area R6W sediment pond during cold winter freeze in November and December attributed to corrosion of a metal culvert; and (iii) discharge from the Earthfill Dam West Sump in early July attributed to

analytical error (D-Al) and an isolated-instance of iron-rich sediment into the water sample that may have been due to sample contamination (T-Fe). These are discussed in detail in the Report.

Mitigation

Mitigation measures that are being implemented to minimize exceedances of EOP discharge limits due to ARD/ML include material management (excavating or covering bedrock exposures), water management to contain water that may be influenced by ARD/ML, and water treatment to neutralize pH and remove total and dissolved metals.

Material management is the primary ARD/ML mitigation strategy to limit the exposure of AG material and the generation of PAG contact water that may trigger the implementation of additional water management. Weathered material that has been exposed for several months and is becoming acidic is monitored to determine when mitigation is required. In addition, material that is placed in RSEM disposal areas is monitored, and weathered material is covered with recently excavated bedrock or overburden.

Weathered PAG material was excavated or covered to minimize potential ARD/ML in the Earthfill Dam and the Right Bank. Exposed PAG in the Dam Core, Zone 8, and RSEM Area R5A was covered with fresh PAG and overburden. Weathered AG bedrock was excavated from the Approach Channel and placed in RSEM Area R5A in 2021.

Water management is a secondary mitigation strategy. Non-contact run-off from above the project is diverted to bypass the construction site such as Garbage Creek. Also, major advancements to the construction of the Right Bank diversion ditch that intercepts upgradient runoff and directs it to the Moberly River were undertaken in 2021. Contact water is managed so that as much as possible is retained within the site. Water that must be released is directed to RSEM sediment control ponds or monitored and discharged from the Earthfill Dam, from where it is discharged to the Peace River. AG bedrock exposed above RSEM Area R5B is associated with natural bedrock exposures and inactive roads. The runoff from exposures in this area and the Approach Channel is managed through storage in the Phase 2 R5B Sump.

Water treatment is the tertiary management strategy. Contact water that is not anticipated to meet EOP discharge limits is conveyed to a water treatment facility. The mobile water treatment facility (MWTF) is positioned at RSEM Area R6 and discharges treated effluent through a series of sludge settling cells and ultimately to the RSEM R6W sediment pond.

PAG-contact water from LBEX, Approach Channel and Dam Core was managed effectively in 2021, by trucking to the MWTF or retaining it within the site and avoiding discharge. Effective mitigation of ARD/ML and preventing exceedance of the project-specific discharge limits during snowmelt and storm events will require the continued excavation or covering of weathered PAG material, and adequate water retention capacity.

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Acronyms

PEACE RIVER
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Acronyms

ABA	Acid-Base Accounting
ACA	Average Crustal Abundance
ACDC	Approach Channel Drainage Channel
AG	Acid Generating
AP	Acid Potential
ARD/ML	Acid Rock Drainage and Metal Leachate
asl	Above Sea Level
BV	Bureau Veritas Laboratories, Burnaby, Canada
CALA	Canadian Association for Laboratory Accreditation
CBE	Charge Balance Error
CCME	Canadian Council of Ministers of the Environment
CEMP	Construction Environmental Management Plan
CoA	Certificate of Analysis
CSR	B.C. Contaminated Sites Regulation
CVC	Conventional Vibrated Concrete
DI	De-ionized Water
DIC	Diversion Inlet Cofferdam
DOC	Diversion Outlet Cofferdam
DQO	Data Quality Objective
DTIP	Diversion Tunnel Inlet Portal
DTOP	Diversion Tunnel Outlet Portal
EOP	End-of-Pipe
FLNRO	B.C. Ministry of Forests, Lands and Natural Resource Operations
IDZ	Initial Dilution Zone
IEM	Independent Environmental Monitor
LBEX	Left Bank Excavation
MDL	Method Detection Limit
MOE	B.C. Ministry of Environment and Climate Change Strategy
MWTF	Mobile Water Treatment Facility
NP	Neutralization Potential

NPAG	Not Potentially Acid Generating
NPR	Net Potential Ratio
PAG	Potentially Acid Generating
PRHP	Peace River Hydro Partners
QA/QC	Quality Assurance / Quality Control
QP	Qualified Professional
RBCD	Right Bank Cofferdam
RBCT	Right Bank Core Trench
RBDT	Right Bank Drainage Tunnel
RCC	Roller Compacted Concrete
RDL	Reported Detection Limit
RPD	Relative Percent Difference
RSEM	Relocated Surplus Excavated Material
SBIAR	South Bank Initial Access Road
SC	Specific Conductance
SWE	Surface Water Equivalent
TPSA	Temporary PAG Stockpile Area
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
WQG	B.C. water quality guideline for the protection of aquatic life

Chemical elements are generally referred to using their one or two letter atomic symbol. Cd denotes cadmium, for example. A T- or D- preceding the symbol denotes the total or dissolved fraction, respectively (D-Cd, for example). Molecules, functional groups, or polyatomic ions may be referred to either by name (*e.g.*, sulphate) or chemical formula (*e.g.,* SO_4).

1. Introduction

PEACE RIVER
HYDRO PARTNERS

1. Introduction

This report summarizes the results of acid rock drainage and metal leaching (ARD/ML) monitoring undertaken in 2021 as part of the Main Civil Works Contract for the Site C Clean Energy Project ('the Project'). This report has been prepared for Peace River Hydro Partners (PRHP) by Lorax Environmental Services Ltd. (Lorax), the Qualified Professional (QP) for Acid Rock Drainage (ARD) for the Main Civil Works Contract.

1.1 Purpose

ARD/ML monitoring is undertaken in accordance with the requirements of the ARD/ML Management Plan for the Project. The ARD/ML Management Plan is documented in Appendix E (Revision 5.2, dated July 26, 2016; BC Hydro, 2016a) of BC Hydro's Construction Environmental Management Plan ('CEMP', Rev. 4, BC Hydro, 2016b). In addition to the requirements outlined in the CEMP, this report is also intended to address information requirements that PRHP has received from BC Hydro to meet requests from the Independent Environmental Monitor (IEM) and B.C. Ministry of Forests, Lands and Natural Resources (FLNRO) Comptroller of Water Rights, since the last revision of the CEMP.

1.2 Scope and Outline

This report has been prepared to address the annual reporting requirements, which are set out in Section 7.5 of the ARD/ML Management Plan. It describes monitoring activities within the Main Civil Works contract work, as well as analytical results and interpretation, from January 1st to December 31st, 2021.

The ARD/ML monitoring program includes five main components:

- Observations and tests to assess the geochemical characteristics of bedrock that has been disturbed in the course of construction, including bedrock that has been exposed and excavated and relocated (Section 2).
- Monitoring of surface water quality within PRHP work areas (Section 3).
- Compiling and reviewing this information to assess the onset of ARD/ML, the effectiveness of mitigation measures including water treatment, surface water quality exceedances, and metal loads discharged to the Peace River (Section 5).
- Identifying relevant conclusions and recommendations (Section 6).

More specifically, this report includes a summary of:

- Monitoring of rinse pH and Acid Base Accounting (ABA) of acid generating (AG) and potentially acid generating (PAG) material excavated, and placed in RSEM areas, in accordance with Section 5.2.1.2 of the BC Hydro ARD/ML Management Plan (Appendix E of the CEMP).
- Water quality monitoring results in RSEM area sumps and sediment ponds, which receive water that has contacted PAG material. This monitoring is required pursuant to Sections 7.3.2 and 7.5.2 of the BC Hydro ARD/ML Management Plan.
- Monitoring at Dam Site road cuts in accordance with Section 5.2.1.7 of the BC Hydro ARD/ML Management Plan.
- Work conducted in 2020 in support of the planning, management, and implementation of a progressive water treatment program, based on the results of rinse pH testing and contact water quality monitoring, in accordance with Section 5.2.1.2 of the BC Hydro ARD/ML Management Plan.

This report summarizes the results of surface water quality monitoring that is undertaken by PRHP upstream and downstream of the Earthfill Dam, since PRHP starting discharging water directly from this area in July 2021. The results of other monitoring in the Peace River may also be noted or summarized to provide context for exceedance of discharge limits and estimated metal loading from RSEM area sediment ponds.

This report does not include the results of any other monitoring undertaken in the Peace River, or any surface water quality monitoring that is undertaken by PRHP or others for purposes other than ARD/ML management. Other monitoring programs and reporting for the Project are undertaken by PRHP, and by others, on behalf of BC Hydro.

Information on geochemical monitoring is provided in Section 2, and the results of surface water quality monitoring are discussed in Section 3. In addition, this report includes in Section 4:

- The relationship that has been established between turbidity (as measured using portable instruments in RSEM area PAG-contact sediment ponds) and total suspended solids (TSS), as determined from laboratory analysis of water quality samples (Section 4.1).
- The status in 2021 of the onset of ARD/ML (Section 4.2).
- A summary of work conducted to mitigate ARD/ML, including water management, an evaluation of water treatment requirements, and a summary of water treatment undertaken (Section 4.3).

- A comparison of measured and predicted metal concentrations at RSEM Area Pond discharges and an evaluation of ML/ARD risk levels (Section 4.4).
- A summary of any exceedances of end-of-pipe (EOP) discharge limits in water discharged from PAG-contact RSEM area sediment ponds, and information on any exceedances of applicable B.C. water quality guidelines for the protection of freshwater aquatic life (WQG) at other discharge locations (Section 4.5).
- An estimation of metal loads discharged from the construction site to the Peace River, from all discharge points on both the Left Bank and Right Bank, and a comparison with metal loads carried by the Peace River (Section 4.6).

Section 5 summarizes conclusions related to the geochemical monitoring program (Section 5.1), the water quality monitoring program (Section 5.2), and mitigation (Section 5.3). Recommendations are outlined in Section 5.4.

1.3 Site Conditions

Weather conditions are relevant to the ARD/ML monitoring program. Weather affects the timing, volume and dilution of ARD/ML products that are generated and rinsed from bedrock.

In general, Site C experiences four distinct seasons, during which relatively consistent conditions occur:

- Winter – the site is mostly frozen from December until mid-March, and a snowpack accumulates. Ice accumulates over open water, except on the Peace River which does not entirely freeze over. Intermittent thaws may occur (usually only lasting a few days) that diminish the snowpack.
- Spring – snow and ice melt from roughly mid-March to mid-April (the timing and duration vary from year to year). This time of year is normally relatively dry.
- Summer – infrequent, relatively intense rainstorms occur, contrasting with otherwise warm and dry weather. These relatively large rain events account for a large proportion of annual precipitation at Site C. Eight storm events from May to September resulting in precipitation of more than 10 mm over the course of a few days accounted for 50% of the total annual precipitation measured at the Site C weather station (166 mm of rain of a total of 335 mm in 2021).
- Autumn – infrequent storms occur. This season may include colder weather (with or without precipitation) that may result in the development of a thin snowpack, alternating with warmer weather that may result in melting of accumulated snow.

Surface water freezes with the onset of cold weather in November or December, except the Peace River which does not freeze, as noted above.

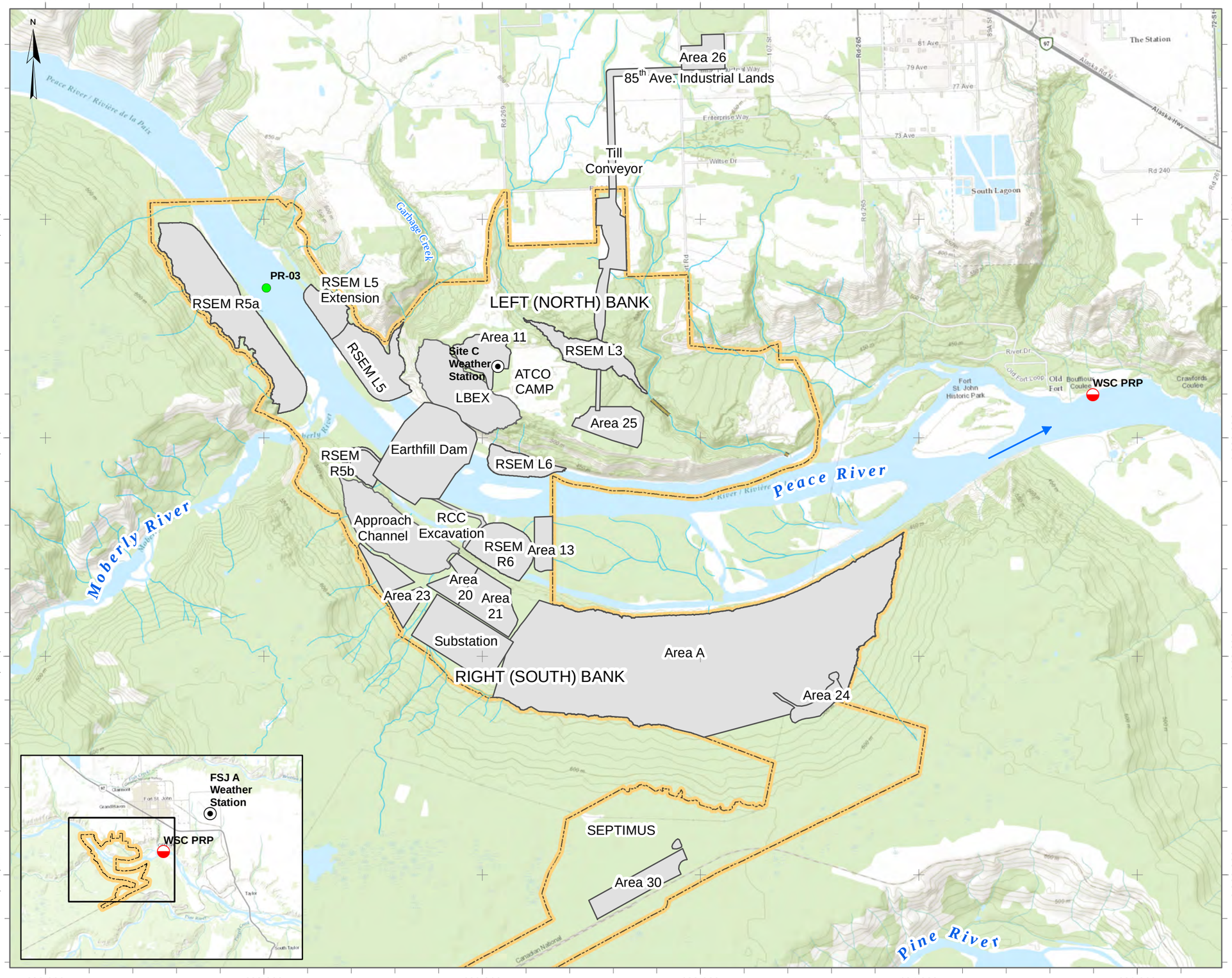
The area in which the Project is located is relatively dry, with average annual precipitation of 444.7 mm, based on Canadian Climate Normals from 1981-2010 (Government of Canada, 2017) at the Fort St. John Airport (FSJA) weather station. This station is located approximately 11 km ENE of Site C, at an elevation of 695 m asl. A weather station has also been installed on the Left Bank at Site C (*i.e.*, the North Camp station), near the ATCO Two Rivers Lodge, at an elevation of 583 m asl (Figure 1-1) below.

1.3.1 Temperature

Daily temperature maximum and minimum values are recorded at the Site C weather station. Monthly average, maximum and minimum temperatures for 2021 are presented in Table 1-1 below. Daily maximum and minimum temperature values for 2021 are also shown in Figure 1-2.

Table 1-1:
Comparison of 2021 Average Min. and Max. Temperatures at Site C Weather Station to Min. and Max. Temperatures at Fort St. John Airport (FSJA) Weather Station and Canadian Climate Normals at FSJA

	2021 Daily Average Temperature at Site C Station (°C)		2021 Daily Average Temperature at FSJA Station (°C)		Long-Term (1981-2010) Average Temperature at FSJA Station (°C)	
Month	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
January	-3.1	-9.4	-4.0	-10.7	-8.7	-16.9
February	-11.6	-18.8	-12.1	-19.6	-5.1	-14
March	3.4	-6.3	1.9	-7.9	0.1	-9.2
April	9.9	-1.6	8.7	-3.1	9.1	-1.3
May	17.0	5.7	16.5	4.1	15.5	4
June	23.8	12.0	23.2	11.0	19.6	8.6
July	24.0	12.6	23.0	11.5	21.7	10.7
August	21.8	11.9	21.0	10.4	20.5	9.2
September	16.8	6.9	16.3	5.6	15.2	4.9
October	7.3	1.0	6.9	-0.8	7.7	-0.6
November	0.7	-7.3	0.6	-8.2	-2.9	-10.2
December	-13.2	-19.9	-13.5	-21.2	-7.4	-15.3





Legend

- Site C Boundary
- Work Area
- Water Survey of Canada, Peace River @ Pine Hydrometric Station
- Weather Station
- Water Quality Station

0 0.5 1 1.5 Km

1:35,000

DATE SAVED:	Aug 23, 2021	**REVIEWED:**	NM
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CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2021 Annual Report

TITLE:

Site Map of Site C Main Civil Works Area

PROJECT #:	A416-1	*FIGURE:*	1-1

Coordinate System: *NAD 1983 UTM Zone 10N* ***Datum:*** *North American 1983* ***Units:*** *Meter*

Path: *P:\@Drafting\SiteC\Drafting Figures\MXD\2021_Q2_Report\Fig 1_5_Overall_SiteMap_20210823.mxd*

In general, monthly average temperatures are a bit warmer at Site C than at FSJA. This was true of both the daily average maximum and minimum temperatures in every month in 2021. In 2020, monthly maximum and minimum temperatures were generally within a few degrees of the long-term average. January and June were warmer at FSJA than the long-term average. February and December were colder.

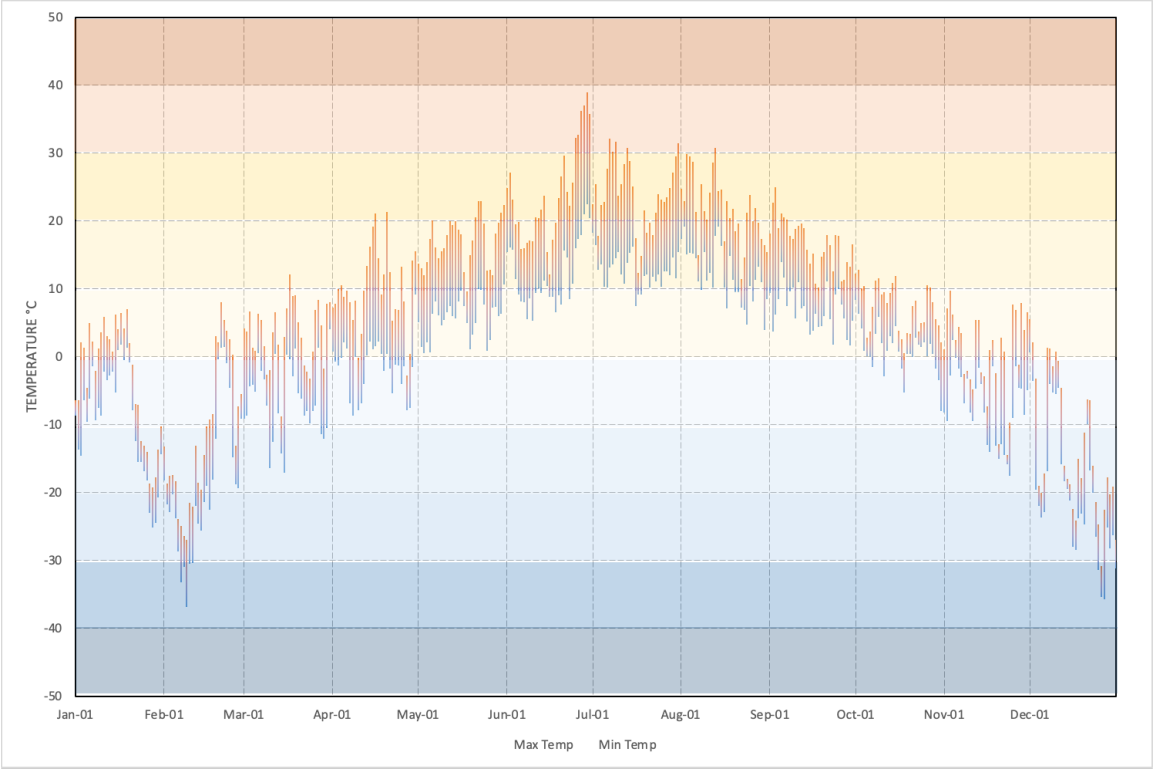


Figure 1-2: Daily Temperature Range at Site C – 2021

Daily temperature ranges indicate that there was a very cold period (below -20°C) from mid-January through mid-February. Temperatures were exceptionally warm (above 30°C) in late June and remained quite high in the first half of July and first half of August. Temperatures were very cold again in late December.

1.3.2 Precipitation

Precipitation affected the timing and magnitude of surface water runoff that rinsed ARD/ML products from acid-generating rock in 2021. The snowpack, daily precipitation, as measured at both FSJA and Site C weather stations, and maximum temperature recorded at Site C are shown in Figure 1-3 below. Snow accumulated during freezing periods and melted during brief thaws. The FSJA weather station was snow-free from early April, with the exception of a few days in late April, until early November. The snowpack and magnitude of precipitation events is shown in Figure 1-4 (January through April), Figure 1-5 (May through August), and Figure 1-6 (September through December) below.

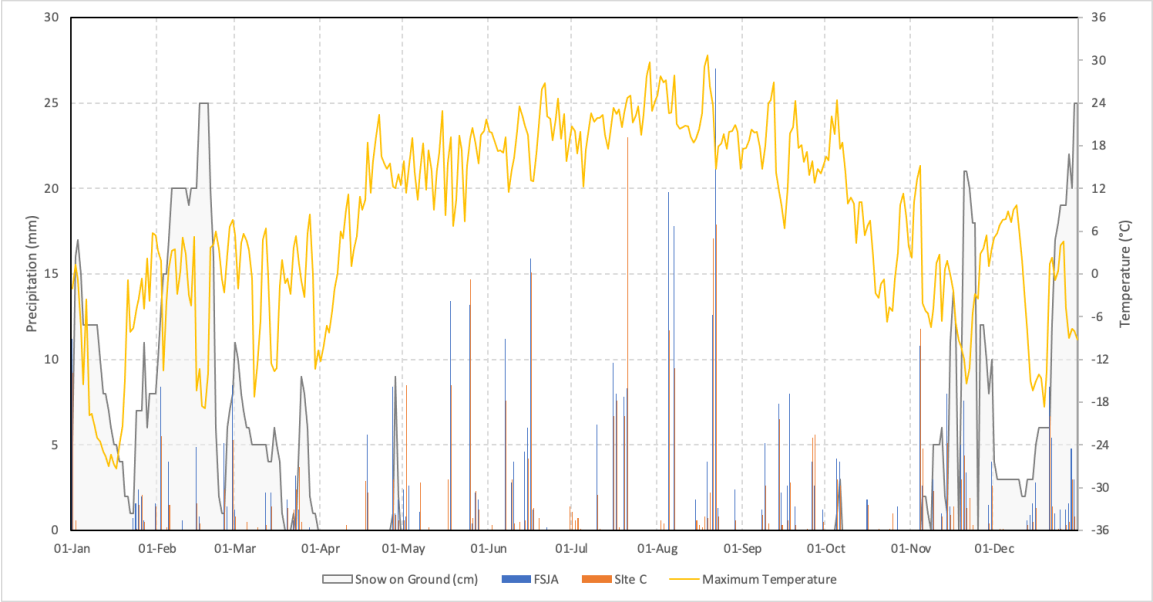


Figure 1-3: Maximum Temperature at Site C; Daily Precipitation – FSJA and Site C; and Snow on Ground at FSJA – 2021

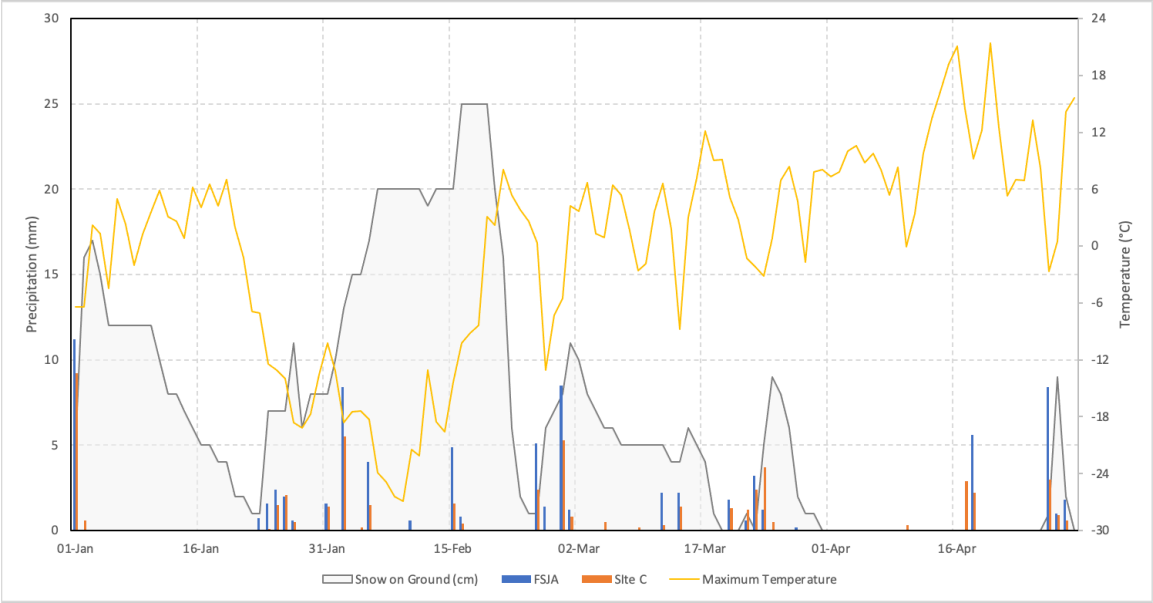


Figure 1-4: Maximum Temperature at Site C; Daily Precipitation – FSJA and Site C; and Snow on Ground at FSJA – January through April 2021

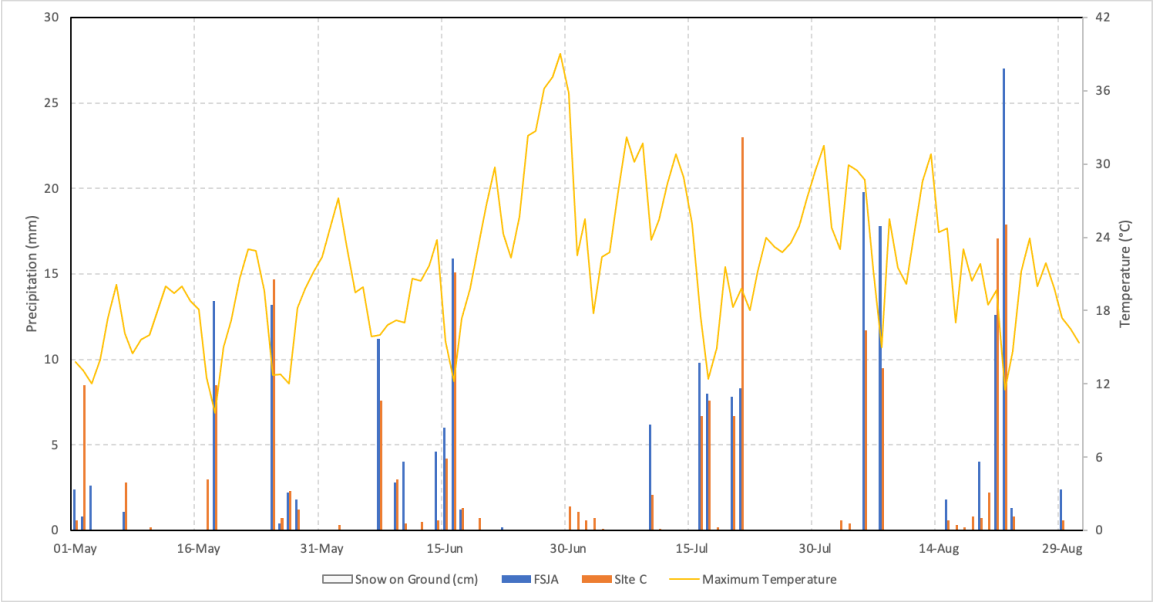


Figure 1-5: Maximum Temperature at Site C; Daily Precipitation – FSJA and Site C; and Snow on Ground at FSJA – May through August 2021

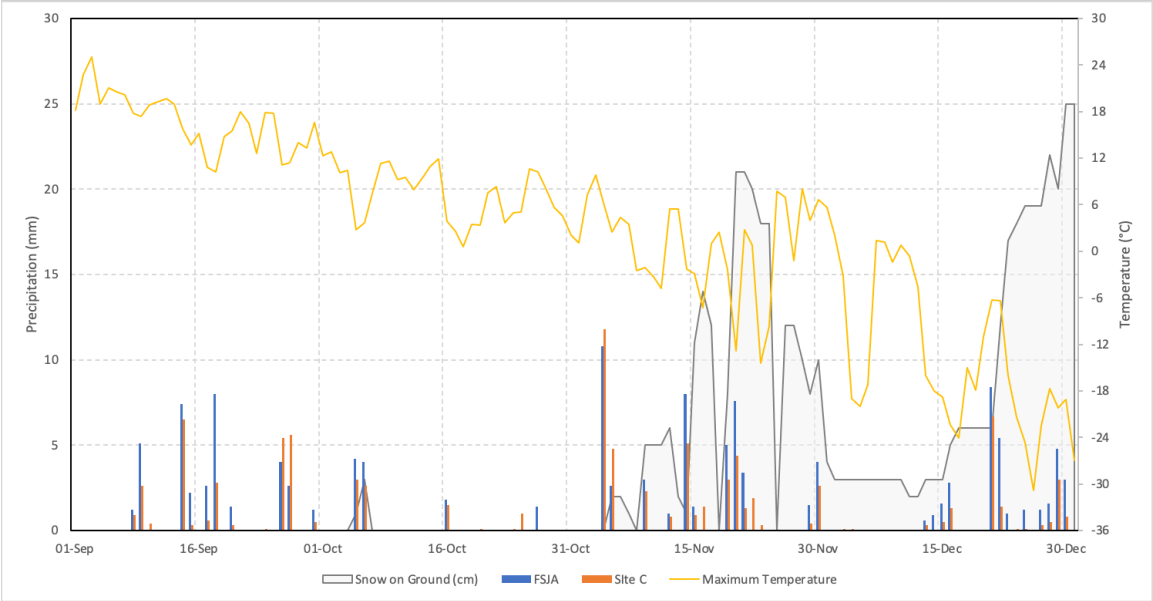


Figure 1-6: Maximum Temperature at Site C; Daily Precipitation – FSJA and Site C; and Snow on Ground at FSJA – September through December 2021

There was a variable snowpack from the beginning of the year through to the end of April. The snowpack varied from a few centimetres to about 25 cm and reached its maximum depth in late February. A snowpack accumulated for a few days in late April. The snowpack began to accumulate again in early November, as noted above.

Periods of rapid snowmelt and heavy rain are noteworthy as they typically generate ARD/ML and can result in exceedances of end-of-pipe limits if the water management system does not have adequate storage at the time that these events occur.

There were 3 occasions during which rapid snowmelt was measured at FSJA in 2021:

- The snowpack declined from 25 cm at FSJA to 1 cm from February 19-24;
- The snowpack declined from 14 cm at FSJA to 0 cm from November 16-18; and
- The snowpack declined from 18 cm at FSJA to 0 cm from November 24-25.

These melting events coincided with short-term thaws which increased daily maximum temperatures well above 0°C.

These melting events were measured at FSJA. The snowpack is generally less at Site C. Therefore, the magnitude of the snowmelt was likely less at Site C. However, the timing and relative proportion of the snowpack that melted is expected to be similar.

There were a few periods of heavier precipitation (>10 mm) from mid-May through early November. These included a total of nine (9) events, three in Q2, five in Q3, and one in Q4. The largest events (>30 mm) occurred in late July and late August. It is typical for the highest frequency and magnitude of large precipitation events to occur in the summer months. The events are summarized in Table 1-2 below.

Table 1-2:
Major Precipitation Events (>10 mm) Recorded at Site C Weather Station - 2021

Q1		Q2		Q3	
Date	**Precipitation (mm)**	**Date**	**Precipitation (mm)**	**Date**	**Precipitation (mm)**
May 17-18	11.5	July 16-17	14.3	November 4-5	16.6
May 25-29	18.9	July 20-21	30.7		
June 15-17	20.6	August 5-7	21.2		
		August 20-23	38.0		
		September 26-27	11.0		

Although there were exceedances of end-of-pile limits and BC Water Quality Guidelines, the 2021 exceedances were not directly triggered by these precipitation events. This is due in part to the mitigation measures that have been implemented by PRHP at site. Exceedances are discussed in more detail in Section 4.4 below.

Monthly precipitation totals recorded at the FSJA and Site C weather stations are shown in Figure 1-7 below, along with the FSJA long-term monthly average precipitation from the 1981-2010 Canadian Climate Normals.

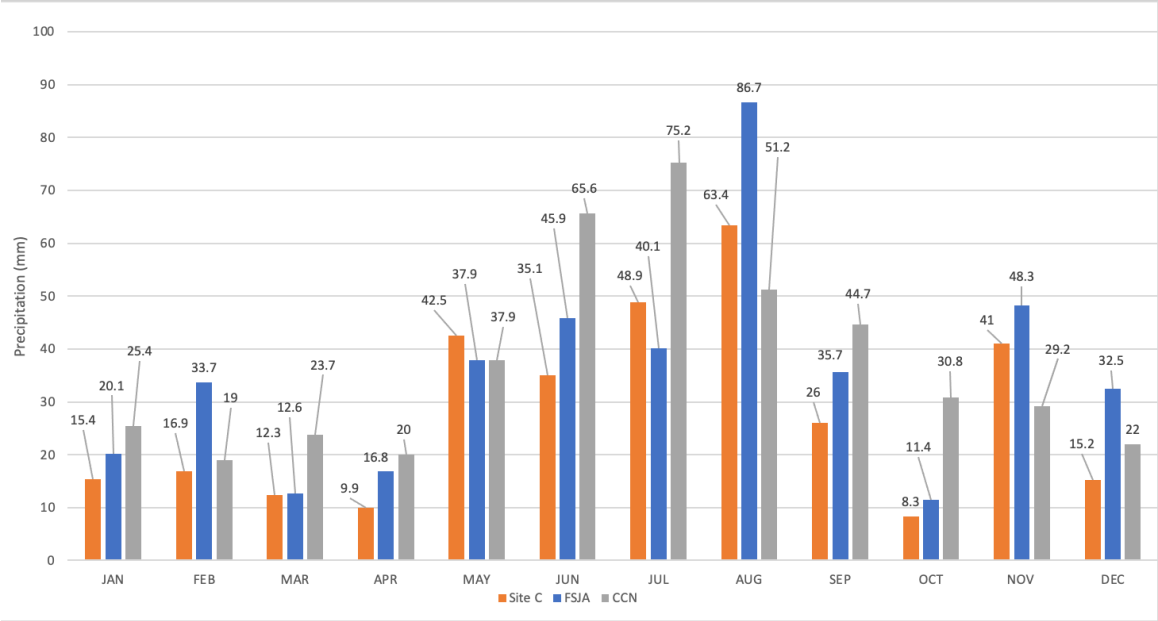


Figure 1-7: Monthly Precipitation at FSJA, Canadian Climate Normals (CCN) for FSJA and Monthly Precipitation at Site C – 2021

Total monthly precipitation measured at Site C and FSJA in 2021 are generally similar to the long-term average in most months except:

- February had more snowfall than average at FSJA;
- March, June, July and October were drier than normal at both Site C and FSJA;
- August and November were wetter than normal at both Site C and FJSA.

Overall, the total precipitation measured at Site C (334.9 mm) was well below the FSJA long-term average (444.7 mm). Total precipitation at FSJA (421.7 mm) was about 5% below the long-term average.

Measurements of precipitation vary between the Site C and FSJA stations. In general, less precipitation is measured at Site C. The discrepancy may be due to three potential factors:

- The difference in elevation between the two sites. The lower elevation of the Site C station is expected to generally result in less precipitation at that station, due to the orographic effect.
- The localized nature of summer rain events, which may result in more or less rainfall at Site C as compared with FJSA. Significantly higher precipitation is evident at both Site C and FSJA at from individual rain events (Figure 1-2) and for specific months in summer (Figure 1-3).

- Differences in the methodology employed at the two stations to measure snowfall. It is measured independently and converted to precipitation at a ratio of 10:1 at the FSJA station, while snowfall is melted and converted to surface water equivalent (SWE) at Site C.

1.3.3 Peace River Flow

The flow in the Peace River determines available assimilative capacity and is managed by BC Hydro primarily in response to energy demand (BC Hydro, 2009). The average daily flow in the Peace River at the Water Survey of Canada Station on the Peace River near Taylor (Station 07FD002) is shown in Figure 1-8 below (daily data is not tabulated in this report).

The discharge values varied significantly through the year. More specifically:

- The flow in the Peace River was relatively high from mid-March to mid-July, generally exceeding 1,500 m^3/s and occasionally exceeding 2000 m^3/s;
- The flow dropped significantly through July and remained relatively low, below 1,500 m3/s, through mid-November; and
- The flow gradually increased from September to the end of the year.

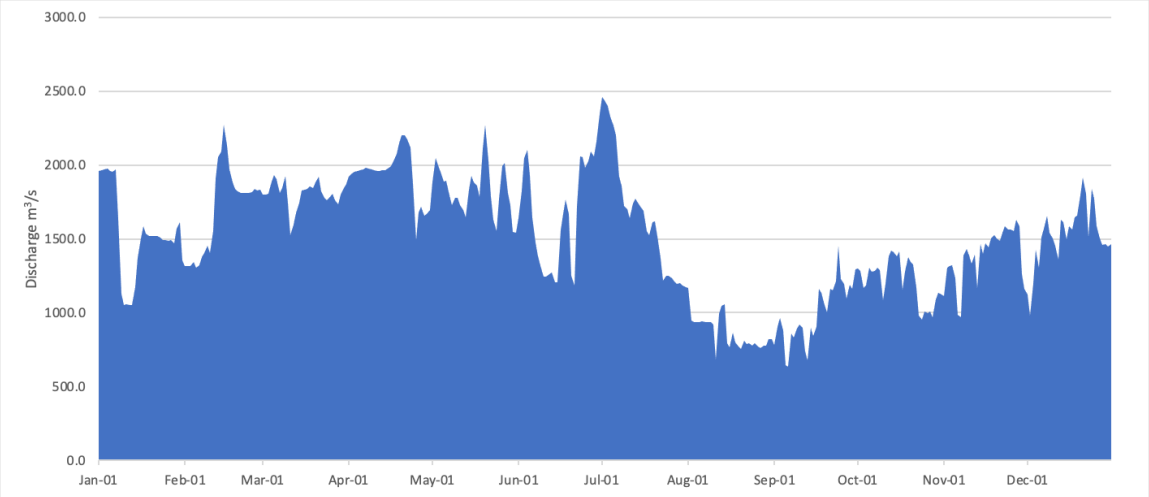


Figure 1-8: Average Daily Flow Rate at Peace River Near Taylor, Station 07FD002 (from Water Survey of Canada, 2021)

Mixing within the IDZ for each sediment pond discharge occurs with only a portion of the total flow in the Peace River. Mixing in IDZs has been assessed by Ecofish Research Ltd. (Ganshorn *et al*., 2017a, 2017b, 2019) on behalf of BC Hydro. Water quality monitoring in the Peace River is also undertaken by Ecofish and reported monthly.

1.4 Construction Activity

Construction of the Site C Clean Energy Project was initiated by BC Hydro in July 2015 and is scheduled to be completed in 2024. The general progression of construction has involved site preparation and construction of access roads, preparation of RSEM disposal areas and excavations on both banks of the river, and excavation of twin diversion tunnels on the left bank. The river was diverted through the diversion tunnels as scheduled in Q3 2020, the isolated section of the river channel was dewatered, and the dam core is now being placed and compacted. Once the dam core is in place, the dam, generating station, and spillways will be completed. More information is available from BC Hydro at https://www.sitecproject.com/construction-activities.

RSEM areas are designated for disposal of excavated materials that are unsuitable for use in construction. Minimizing potential ARD/ML from this material is an important environmental protection measure for the project, as discussed in Section 5.0 of the CEMP (BC Hydro, 2016b). During construction, sediment ponds established within each RSEM area capture surface water runoff that contacts PAG or acid generating (AG) material. This water is then sampled, and treated if necessary, prior to discharge.

The majority of PAG and AG material will be stored within the future reservoir footprint. This is to slow reaction rates, and ARD/ML to minimal levels, once the material is permanently submerged in the reservoir.

A brief summary of construction activity and ARD/ML monitoring undertaken in 2021 is provided below. The volumes of PAG material excavated are discussed in Section 2.2. A plan showing the construction site and the main areas within it is included as Figure 1-1.

The relatively minor excavations on the Left Bank in 2021 was from within the Left Bank Cofferdam and the Left Bank Drainage Adit. The excavated material was placed in the RSEM Area L5 and RSEM Area R5A.

PAG excavation from the Earthfill Dam Core Trench, Ramp and Foundation Prep. The excavated material was placed in RSEM Area R5A and Zone 8.

On the Right Bank, a large volume of PAG material was excavated from the Approach Channel and Spillway. Relatively minor quantities were excavated from the Dam Core Buttress, Right Bank Drainage Tunnel, Laydown Area 32A and 32B, and RCC Buttress. Right Bank material was placed in RSEM Area R5A and Zone 8.

1.5 Water Management

The water management system is continuously adapted as earthworks are undertaken. The site is subdivided into a series of catchment areas for the purpose of water management.

Surface water runoff and other contact water from these areas is collected and conveyed to a series of RSEM area sediment ponds (Figure 1-9). Water is transferred to the Mobile Water Treatment Facility (MWTF) for treatment, as needed. Transfers between catchments are also occasionally undertaken to improve water management efficiency and ensure contact waters are routed through an RSEM sediment control pond prior to discharge.

1.5.1 Left Bank

There are two large and one smaller catchment areas on the Left Bank. Contact water catchments on the Left Bank are:

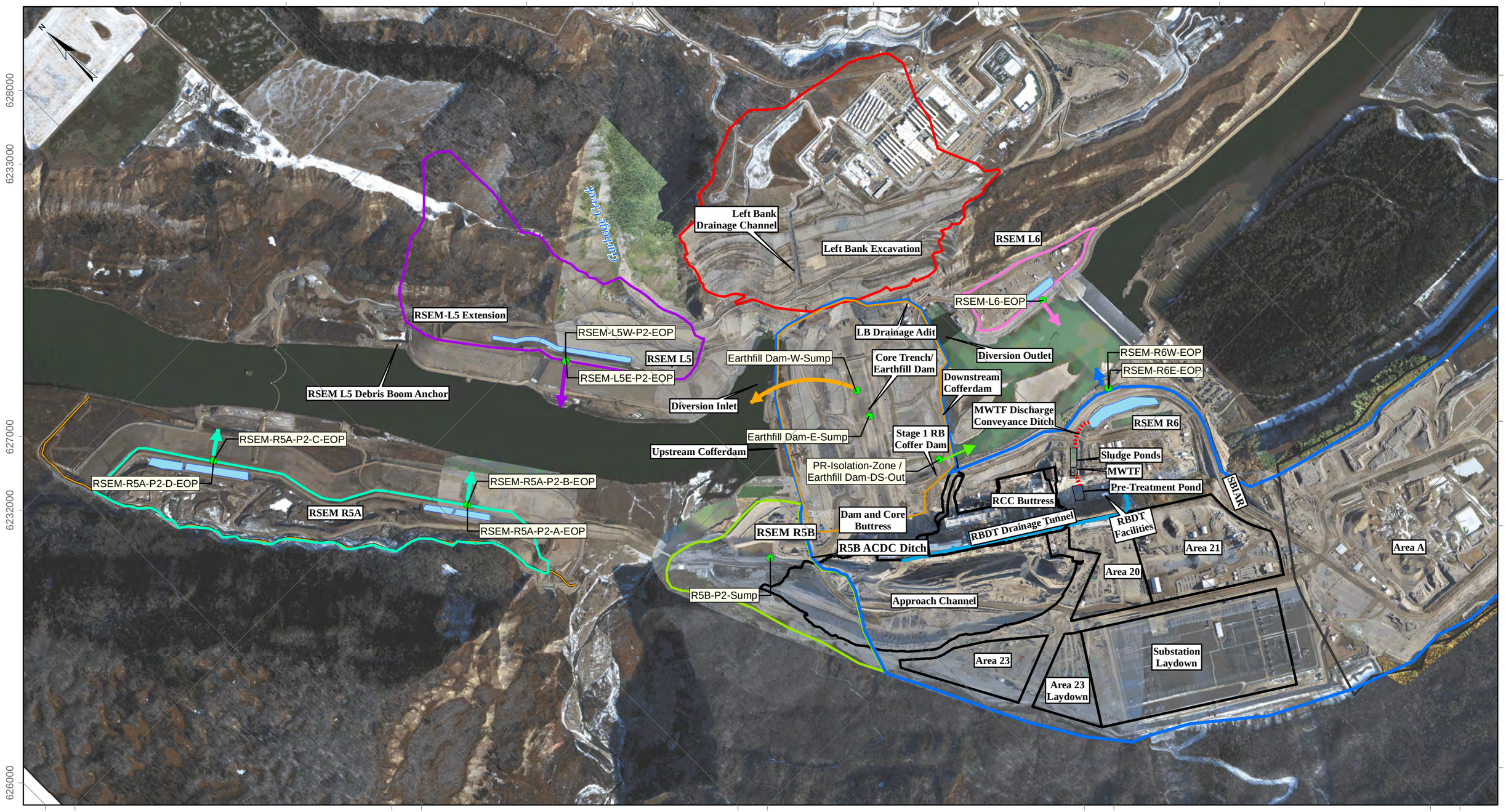
- The RSEM Area L5 catchment area contact water is conveyed to the RSEM Area L5 Phase 2 sediment control ponds;
- The Left Bank Excavation (LBEX) catchment area contact water is directed to the RSEM Area L5 East sediment control pond. Contact water from exposed AG bedrock exposed on Bench 0 is directed to the MWTF;
- The small RSEM Area L6, from which contact water is generally conveyed to the RSEM Area L6 sediment pond.

The Diversion Inlet and Diversion Outlet Tunnels are complete, and the Peace River is diverted through the tunnels. Garbage Creek water is diverted through the construction site via lined ditches and pipes. RSEM Area L3 that contains non-PAG material is managed by BC Hydro.

1.5.2 Earthfill Dam

Water management within the Earthfill Dam footprint includes the collection of runoff and river seepage water to keep the Core Trench dewatered via:

- The Left Bank Core Trench (LBCT) area, in which surface water runoff is collected in baker tanks and directed to the MWTF;
- River water that may contact PAG material in the dam core is captured by sumps and pumped to RSEM Area R6 West pond or to the river over the Upstream Cofferdam; and
- The Isolation Zone contains river water seepage that is isolated in the thalweg between upstream and downstream coffer dams. This area is dewatered to the river over the Downstream Cofferdam.



Legend

- Water Quality Sampling Location
- Water Conveyance Pipe
- Non-Contact Diversion
- RSEM-L5-P2 Catchment
- RSEM-L6 Catchment
- Earthfill Dam
- Left Bank Excavation
- RSEM-R5A-P2 Catchment
- RSEM-R5B Catchment
- RSEM-R6 Catchment
- Sediment Pond

DATE SAVED:	Feb 03, 2022
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VERSION:	1

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

0 200 400
Meters

CLIENT: PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT: **Site C Clean Energy Project ARDML 2021 Annual Report**

TITLE: RSEM Sediment Control Pond Catchment Areas

PROJECT #: A416-1 FIGURE: 1-9

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1.5.3 Right Bank

There are five catchment areas within the construction site on the Right Bank:

- Area A (a large area to the east of the SBIAR in which aggregates are being extracted for use at the construction site), contact water from the western portion of the area is directed to North ditch and transferred to the R6 sediment control ponds or crusher, as needed and groundwater intercepted in the eastern portion is dewatered to vegetation;
- RSEM Area R6 (which includes Area 20/21, the RBDT and associated facilities to the south, and Earthfill Dam, as well as the Approach Channel above it), from which contact water is conveyed to the RSEM Area R6 sediment ponds;
- RSEM Area R5A (which includes the area where the majority of excavated PAG material will be deposited on the west side of the Moberly River), from which contact water is conveyed to the RSEM Area R5A sediment ponds. Water is periodically pumped between the ponds to minimize discharge.
- The RSEM Area R5B sediment pond was decommissioned and backfilled. The majority of water that previously reported to the RSEM R5B sediment pond is now conveyed to the RSEM R6 ponds. Contact water immediately south of RSEM Area R5B and the western extents of the Approach Channel accumulate in the RSEM Area R5B Phase 2 Sump.
- Area 30 sediment pond – Runoff from the stockpiled aggregates in Area 30 accumulate in the Area 30 sediment control pond. The pond discharges to the adjacent wetlands through a rip-rap lined channel.

1.6 RSEM Area Sediment Pond Discharge

1.6.1 Left Bank

A total of just over 16,000 m^3 of water was discharged from the Left Bank in 2021. The majority of this was from the RSEM Area L5E sediment control pond from June through September. The total volumes discharged from the Left Bank ponds are shown in Table 1-3 below, and the daily volumes for each pond are presented in Appendix 1-A.

RSEM L5E discharged intermittently from June through September, with peak discharge (greater than 10 L/s) occurring for only a few days in late September. The daily discharge from RSEM L5E is shown in Figure 1-10 below.

Table 1-3:
Total Volume of PAG Contact Water Discharged (m3) from the Left Bank - 2021

Month	RSEM-L5E	RSEM-L5W	RSEM-L6
January			
February			
March			
April			918
May			
June	347		
July	1,941		
August	2,039	406	
September	9,465	158	
October			
November			1,008
December			
TOTAL	13,793	564	1,926

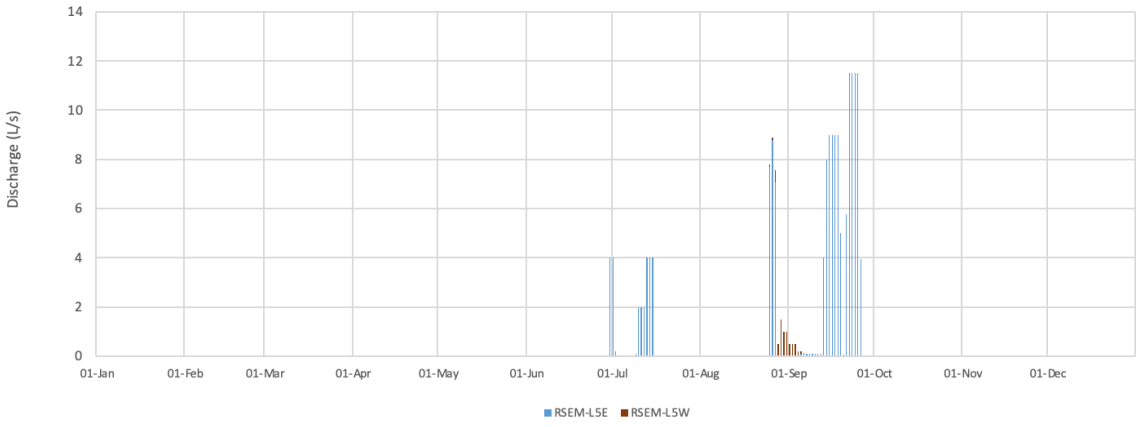

Figure 1-10: Average Daily Discharge from Left Bank (RSEM-L5E, RSEM-L5W) Sediment Control Ponds – 2021

1.6.2 Right Bank

A total volume of just over 800,000 m^3 of water was discharged from the Right Bank in 2021. This included approximately 202,000 m^3 from the RSEM Area R6 East sediment control pond and slightly under 625,000 m^3 from the RSEM Area R6 West sediment control pond (RSEM R6E and RSEM R6W). The discharge from the RSEM R6 East pond in 2021 was reduced by approximately 40% in 2021 compared to 2020. The total volumes

discharged from the sediment control ponds on the Right Bank in 2021 are shown in Table 1-4 below. Daily volumes for each pond are presented in Appendix 1-A.

Table 1-4:
Total Volume of PAG Contact Water Discharged (m^3) from Right Bank - 2021

Month	RSEM R6E	RSEM R6W
January	14,554	11,360
February	3,819	15,738
March	9,826	141,766
April	26,403	103,052
May	10,843	91,839
June	4,465	64,614
July	4,185	53,827
August	24,691	47,223
September	36,843	44,289
October	40,705	30,143
November	26,410	21,596
December	6,197	10,013
TOTAL	208,941	635,461

The combined discharge from the RSEM R6E and R6W ponds generally exceeded 40 L/s in March and the first half of April, and generally exceeded 20 L/s through October. The individual and total average daily discharge rates to the Peace River from the Right Bank (RSEM R6E and R6W ponds) in 2021 are shown in Figure 1-11.

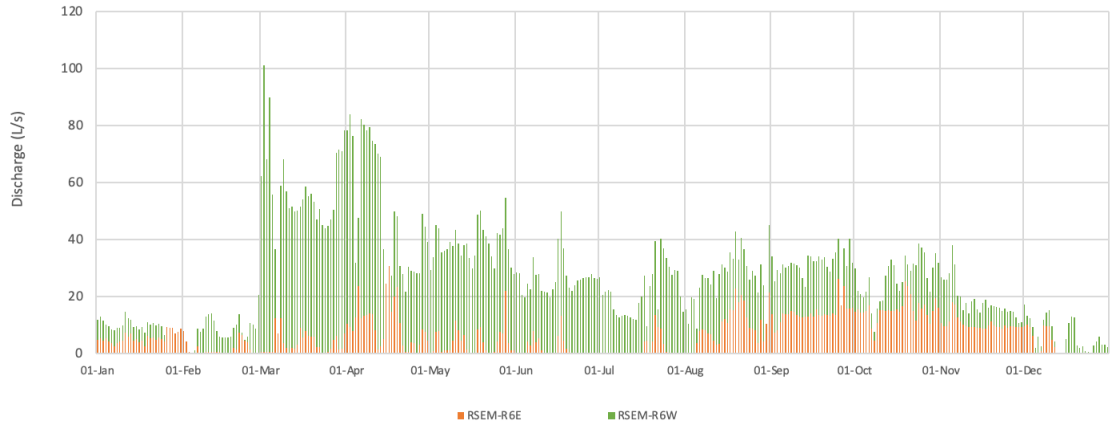

Figure 1-11: Total of Average Daily Discharge Rates (L/s) from Right Bank (RSEM-R6E, RSEM-R6W) Sediment Control Ponds – 2021

Note: Graph shows combined flow from RSEM R6W and R6E (stacked bars) on days when there was discharge from both ponds.

1.7 Data Management

A large volume of monitoring data has been compiled since the ARD/ML monitoring program was initiated in autumn 2016. Data from the Bureau Veritas (BV, formerly Maxxam Analytics) laboratory in Burnaby, B.C. is provided in database-ready Electronic Data Deliverable (EDD) format to streamline data entry and minimize potential data entry errors. A customized water quality EDD format was developed by BV to include data for early detection of QA/QC issues. EDDs are imported directly into a proprietary database system called EQWin that is capable of efficient data retrieval and reporting, and erroneous or invalid data detection. A customized data entry program called CERES, developed by Lorax using Microsoft Access software, allows multiple PRHP staff to simultaneously enter field water quality, flow measurements and sample metadata while scrutinizing the data for potential transcriptions errors. The CERES data is further imported into EQWin to create an aggregated database of laboratory analytical and field water quality data. Both solid phase (ARD/ML analytical results, including the results of rinse pH, ABA and metals analyses) and surface water quality results (both field and laboratory measurements) are stored in the EQWin database.

2. PAG Bedrock Monitoring

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2. PAG Bedrock Monitoring

2.1 Purpose and Objectives

PRHP is required to monitor AG and PAG rock exposures and excavations in areas affected by work undertaken as part of the Main Civil Works Contract in accordance with the BC Hydro and PRHP Acid Rock Drainage and Metal Leaching Management Plans (Appendix E of the CEMP; BC Hydro, 2016a and Appendix A of EMP; Rev. 9, PRHP, 2017a, respectively). The specific objectives of this monitoring program are to:

- Confirm that the ARD/ML potential of bedrock is consistent with the original geochemical characterization work undertaken for the project that was used as the basis for the Environmental Assessment and water quality predictions;
- Monitor PAG rock exposures to provide early warning of any that have become acidic;
- Provide continuous geochemical characterization of excavated material disposed in various RSEM facilities; and
- Monitor the effectiveness of mitigation measures that have been implemented.

The baseline geochemical characterization of bedrock determined that all bedrock units that will be disturbed by dam site construction activities are PAG (KCB, 2015). This report specifies that bedrock should be assumed to be PAG or AG, unless direct sampling and analyses determine otherwise. ARD/ML monitoring is recommended for areas where bedrock is excavated and where these materials are stored. A summary of the material excavated and disposed in 2021 is included in Section 2.2.

2.2 Material Balance

Bedrock material excavation and disposal was tracked throughout 2021. A total of 1,690,486 m^3 was excavated in 2021. This included 1,314,746 m^3 on the Right Bank, mostly from the Approach Channel and Spillway, 373,977 m^3 in the Earthfill Dam area, mostly from the main excavation of the Core Trench, and 1,763 m^3 on the Left Bank, mostly from the Left Bank Drainage Adit. On the Right Bank, most of the material was placed in RSEM Area R5A. Material excavated on the Left Bank was placed in RSEM Area L5. Most of the material from the Earthfill Dam area was placed in RSEM Area R5A and Zone 8. In general, material excavated on the Left and Right Banks is deposited on the same bank on which excavation occurs; however, once the river was diverted through the tunnels and a section of the river was dewatered some material was transported between banks. The locations of site facilities where excavation and monitoring have occurred are illustrated in Figure 2-1.

627,000 628,000 629,000 630,000 631,000

6,231,000

6,230,000

6,229,000

RSEM Area R5A

RSEM Area L5 Extension

RSEM Area L5

Earthfill Dam Excavation (345,764 m^3)
Earthfill Dam - Ramp (16,899 m^3)
Earthfill Dam - Foundation Prep (11,314 m^3)
-Deposited in RSEM-L5, RSEM R5A and Zone 8

Left Bank Drainage Adit (1,488 m^3)
-Deposited in RSEM-L5,
RSEM-R5A

Zone 8

Dam Core/Central Cofferdam (275 m^3)
-Deposited in RSEM-L5,
RSEM R5A

RSEM R5B Area (198 m^3)
-Deposited in RSEM-R5A

Earthfill Dam

RSEM Area L6

Dam and Core Buttress (18,161 m^3)
RCC Buttress and Powerhouse (16,587 m^3)
Laydown Area 32A/32B (1,828 m^3)
-Deposited in RSEM-R5A, RSEM-L5

Approach Channel and
Spillway (1,276,527 m^3)
-Deposited in RSEM R5A and Zone 8

RBDT (1,319 m^3)
-Deposited in RSEM R5A

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LEGEND

- Excavation Area
- Deposition Area

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

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DATE SAVED:	Jan 26, 2022
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REVIEWED:	NM
VERSION:	1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE: Site Facility Layout Map Showing Excavations and Deposition Areas

PROJECT #: A416-2 *FIGURE:* 2-1

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2.2.1 Left Bank

Excavations on the Left Bank in 2021 occurred as a result of construction activities around the Left Bank Drainage Adit and the Dam Core/Central Cofferdam. In 2021, a total of 1,488 m^3 was excavated from the Left Bank Drainage Adit (Table 2-1). Excavation in the Left Bank Drainage Adit occurred in Q1 2021, with the largest volumes excavated in January (Figure 2-2). A total of 275 m^3 was excavated from the Dam Core/Central Cofferdam in January 2021.

In total, 3,929 m^3 of PAG material was stockpiled on the Left Bank in 2021. All of the PAG material was placed in RSEM Area L5. At the end of the year, RSEM Area L5 contained 1,013,037 m^3, the RSEM Area L5 Extension contained 495,240 m^3, L5 Garbage Creek contained 24,240 m^3, the RSEM Area L5 Starter Dyke contained 4,869 m^3, the Left Bank Dam Core contained 12,345 m^3, and the RSEM Area L6 contained 64,345 m^3. (Table 2-2; Figure 2-3).

Table 2-1:
Summary of excavated PAG volumes on the Left Bank in 2021

Excavation Site	Material Excavated (m^3)				
	Q1	Q2	Q3	Q4	Total
Dam Core/Central Cofferdam	275	0	0	0	275
Left Bank Drainage Adit	1,488	0	0	0	1,488
Total	1,763	0	0	0	1,763

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from January 3 to March 27, 2021, "Q2" includes volumes excavated from March 28 to July 3, 2021, "Q3" includes volumes excavated from July 4 to October 9, 2021, and "Q4" includes volumes excavated from October 10, 2021 to January 1, 2022.

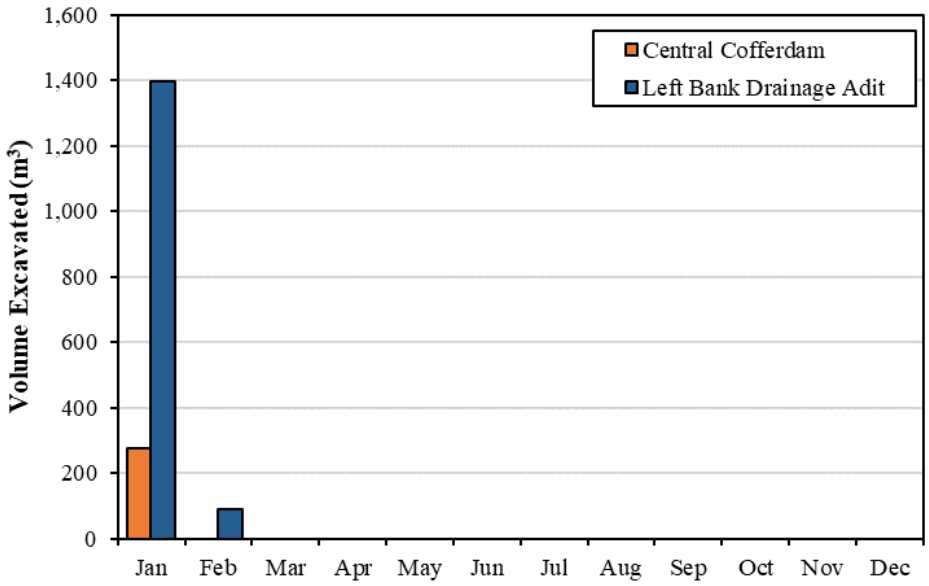


Figure 2-2: Overview of PAG bedrock excavations on the Left Bank in 2021.

Table 2-2:
Summary of cumulative volumes of PAG material in Left Bank stockpiles at the end of each quarter in 2021

Stockpile	Cumulative Volume Stockpiled (m^3)			
	Q1	Q2	Q3	Q4
RSEM Area L5	1,010,746	1,013,037	1,013,037	1,013,037
RSEM Area L5 Extension	495,240	495,240	495,240	495,240
RSEM Area L6	64,345	64,345	64,345	64,345
L5 Garbage Creek	24,240	24,240	24,240	24,240
Left Bank Dam Core	12,345	12,345	12,345	12,345
RSEM Area L5 Starter Dyke	4,869	4,869	4,869	4,869
Cumulative total	1,611,785	1,614,076	1,614,076	1,614,076

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from January 3 to March 27, 2021, "Q2" includes volumes excavated from March 28 to July 3, 2021, "Q3" includes volumes excavated from July 4 to October 9, 2021, and "Q4" includes volumes excavated from October 10, 2021 to January 1, 2022.

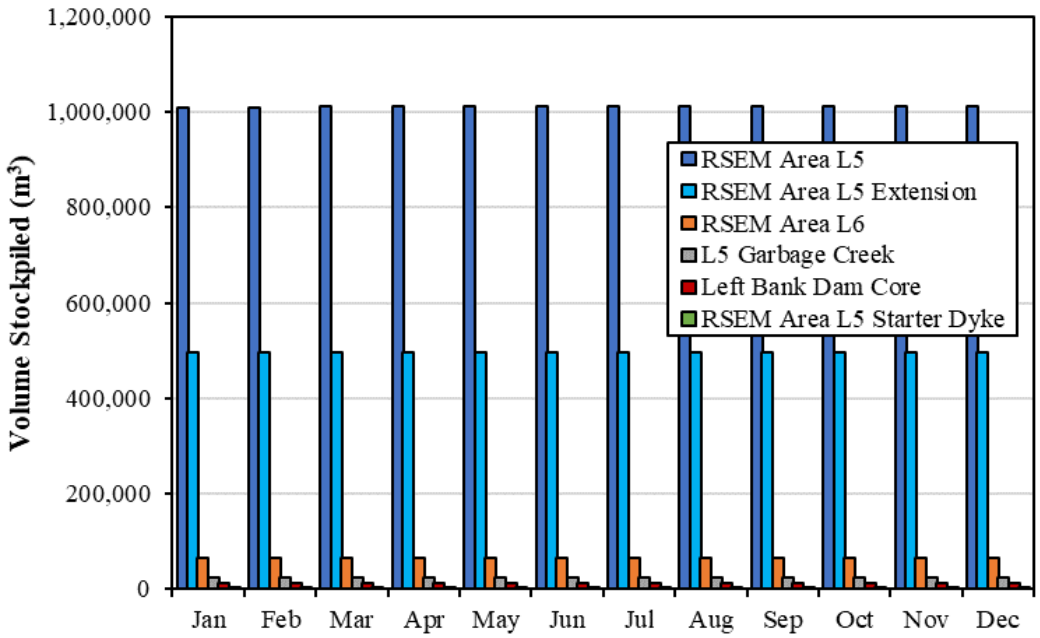


Figure 2-3: Overview of cumulative PAG material volumes stored on the Left Bank through 2021.

2.2.2 Earthfill Dam

Excavation of PAG bedrock from the Earthfill Dam area began in March 2021. In 2021, a total of 373,977 m^3 of PAG material was excavated (Table 2-3). The majority of the PAG material originated from the main excavation (345,764 m^3) while the remaining volumes were excavated from the ramp (16,899 m^3) and foundation preparation (11,314 m^3)

(Figure 2-4). Throughout 2021, this material was placed in RSEM Area R5A and Zone 8, while some of the material was transported to RSEM Area L5.

Zone 8 is an area within the upstream side of the Earthfill Dam approved for the placement of PAG material. The majority of PAG material placement in this area occurred in Q4 2021. At the end of 2021, Zone 8 contained 1,017,497 m^3 of PAG bedrock (Table 2-4; Figure 2-5). In Q4 2021, PAG material was also placed in the Dam Core Temporary Blanket (77,678 m^3) and in temporary ramps (24,222 m^3).

Table 2-3:
Summary of excavated PAG volumes in Earthfill Dam area in 2021

Excavation Site	Material Excavated (m^3)				
	Q1	Q2	Q3	Q4	Total
Earthfill Dam Excavation	88,102	209,069	45,591	3,002	345,764
Earthfill Dam – Ramp	3,190	6,401	7,308	0	16,899
Earthfill Dam – Foundation Prep	0	11,314	0	0	11,314
Total	91,292	226,784	52,899	3,002	373,977

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from January 3 to March 27, 2021, "Q2" includes volumes excavated from March 28 to July 3, 2021, "Q3" includes volumes excavated from July 4 to October 9, 2021, and "Q4" includes volumes excavated from October 10, 2021 to January 1, 2022.

Table 2-4:
Summary of cumulative volumes of PAG material in Zone 8 at the end of each quarter in 2021

Stockpile	Cumulative Volume Stockpiled (m^3)			
	Q1	Q2	Q3	Q4
Zone 8	12,345	141,489	163,526	1,017,497
Dam Core Temporary Blanket	0	0	0	77,678
Temporary Ramps	0	0	0	24,222
Cumulative total	12,345	141,489	163,526	1,119,397

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from January 3 to March 27, 2021, "Q2" includes volumes excavated from March 28 to July 3, 2021, "Q3" includes volumes excavated from July 4 to October 9, 2021, and "Q4" includes volumes excavated from October 10, 2021 to January 1, 2022.

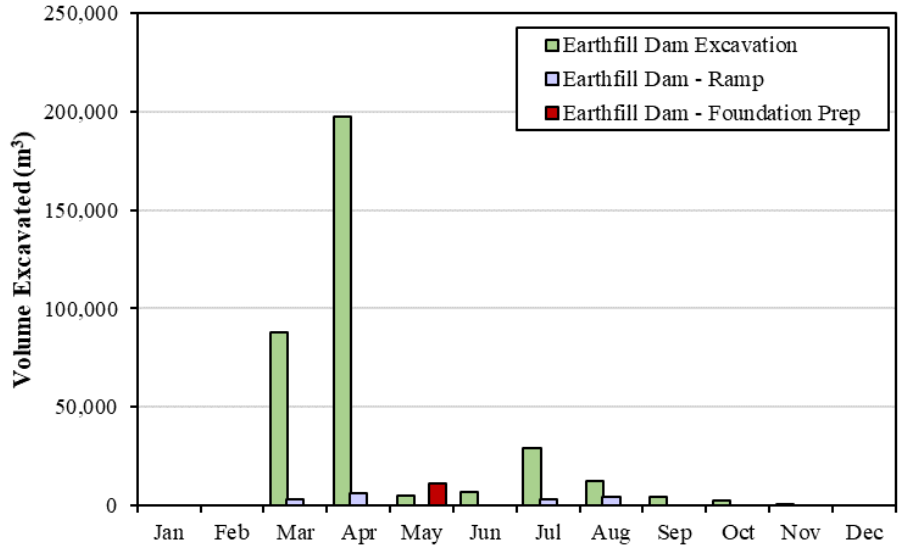


Figure 2-4: Overview of PAG bedrock excavations in Earthfill Dam area in 2021.

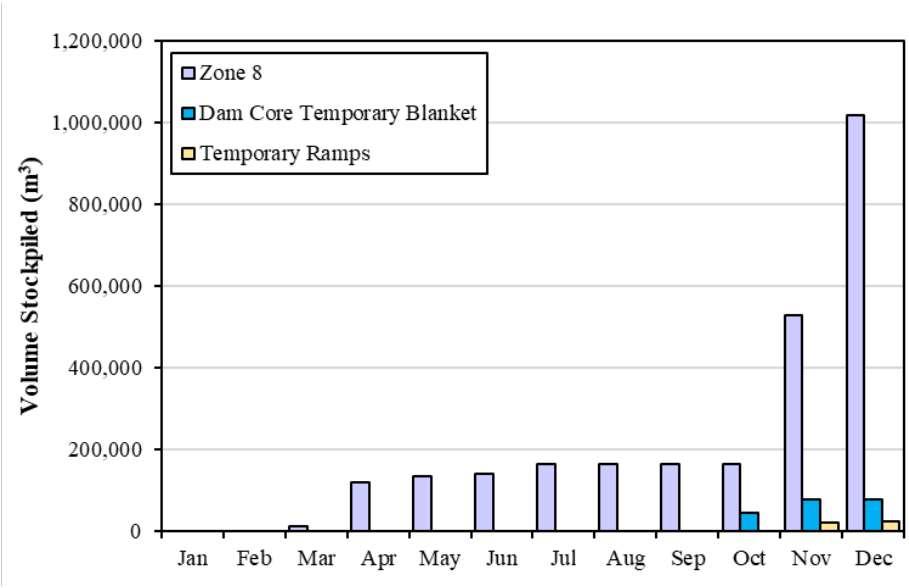


Figure 2-5: Overview of cumulative PAG material volumes stored in the Earthfill Dam area through 2021.

2.2.3 Right Bank

Excavations on the Right Bank in 2021 amounted to a total of 1,314,746 m^3 of PAG bedrock. Much of this material was produced from excavations in the Approach Channel and Spillway (1,276,527 m^3), primarily in Q4 2021 (Table 2-5; Figure 2-6(a)). The remaining volume was excavated from the Dam and Core Buttress (18,161 m^3), the RCC Buttress and Powerhouse (16,587 m^3), Laydown Areas 32A and 32B (1,888 m^3), the Right Bank Drainage Tunnel (RBDT; 1,319 m^3), RSEM Area R5B (198 m^3), and Area A (66 m^3) (Figure 2-6(b)).

Most of the material excavated on the Right Bank was deposited in RSEM Area R5A which, at the end of 2021, contained 6,035,554 m^3 of PAG rock (Table 2-6; Figure 2-7). In 2021, no additional PAG material was placed at the RSEM Area R5B, which contained 363,618 m^3, and the RSEM Area R5A Starter Dyke, which contained 57,232 m^3 of PAG rock. Roughly 374 m^3 of PAG material related to a hydrocarbon spill was placed in the Area A temporary stockpile in April and later moved off site in Q2 2021.

Table 2-5:
Summary of excavated PAG volumes on the Right Bank in 2021

Excavation Site	Material Excavated (m^3)				
	Q1	Q2	Q3	Q4	Total
Dam and Core Buttress (including Core Trench)	7,634	10,527	0	0	18,161
Approach Channel and Spillway	0	78,696	0	1,197,831	1,276,527
Right Bank Drainage Tunnel (RBDT)	371	360	588	0	1,319
RSEM Area R5B	110	0	88	0	198
Laydown Area 32A and 32B	0	1,828	0	60	1,888
Area A	0	66	0	0	66
RCC Buttress and Powerhouse	0	16,587	0	0	16,587
Total	8,115	108,064	676	1,197,891	1,314,746

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from January 3 to March 27, 2021, "Q2" includes volumes excavated from March 28 to July 3, 2021, "Q3" includes volumes excavated from July 4 to October 9, 2021, and "Q4" includes volumes excavated from October 10, 2021 to January 1, 2022.

Table 2-6:
Summary of cumulative volume of PAG material in the Right Bank stockpiles at the end of each quarter in 2021

Stockpile	Cumulative Volume Stockpiled (m3)			
	Q1	Q2	Q3	Q4
RSEM Area R5A	5,555,955	5,758,994	5,790,532	6,035,554
RSEM Area R5A Starter Dyke	57,232	57,232	57,232	57,232
RSEM Area R5B	363,618	363,618	363,618	363,618
Cumulative total	5,976,805	6,179,844	6,211,382	6,456,404

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from January 3 to March 27, 2021, "Q2" includes volumes excavated from March 28 to July 3, 2021, "Q3" includes volumes excavated from July 4 to October 9, 2021, and "Q4" includes volumes excavated from October 10, 2021 to January 1, 2022.

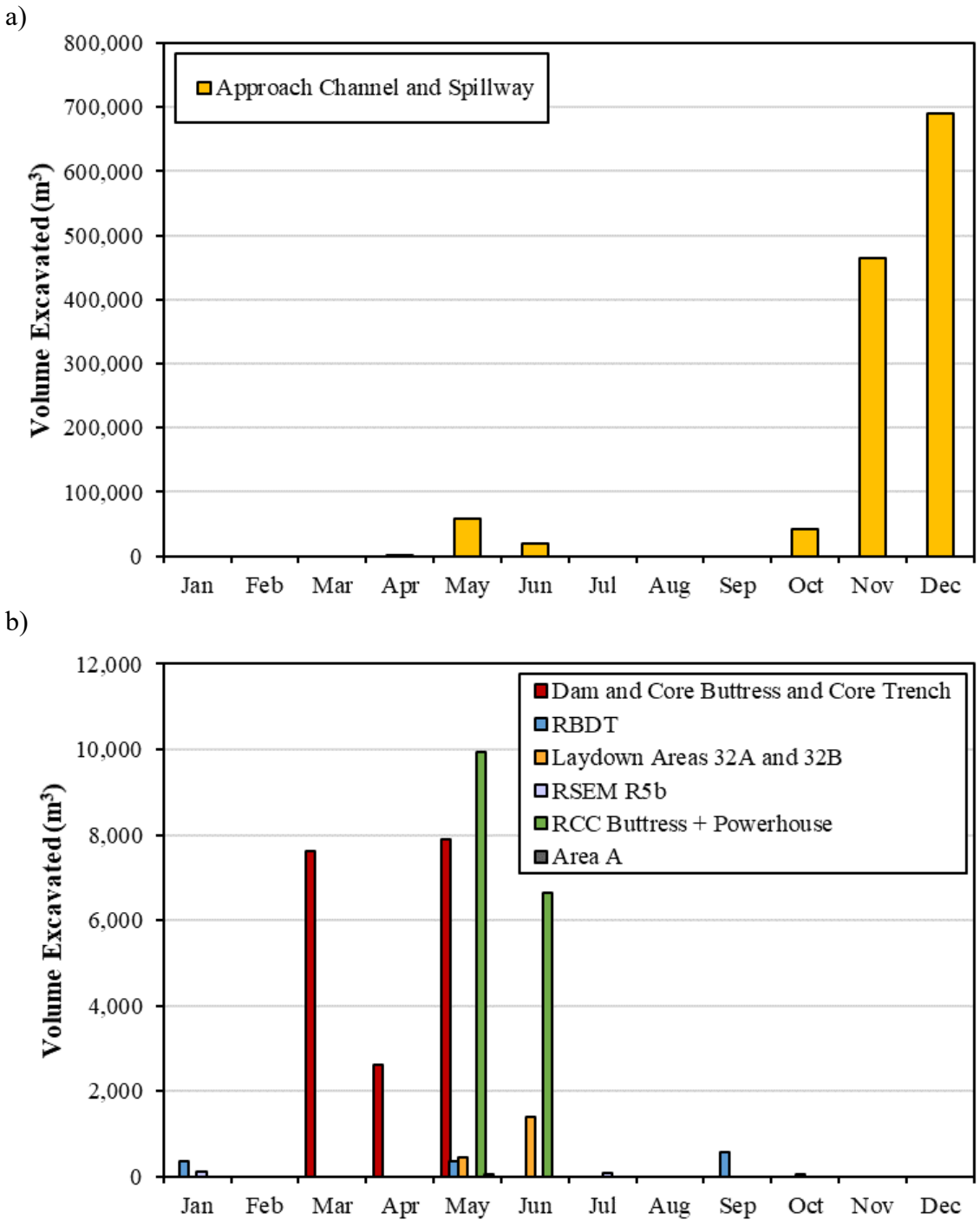


Figure 2-6: Overview of PAG bedrock excavations on the Right Bank in 2021, (a) shows major excavations and (b) shows minor excavations.

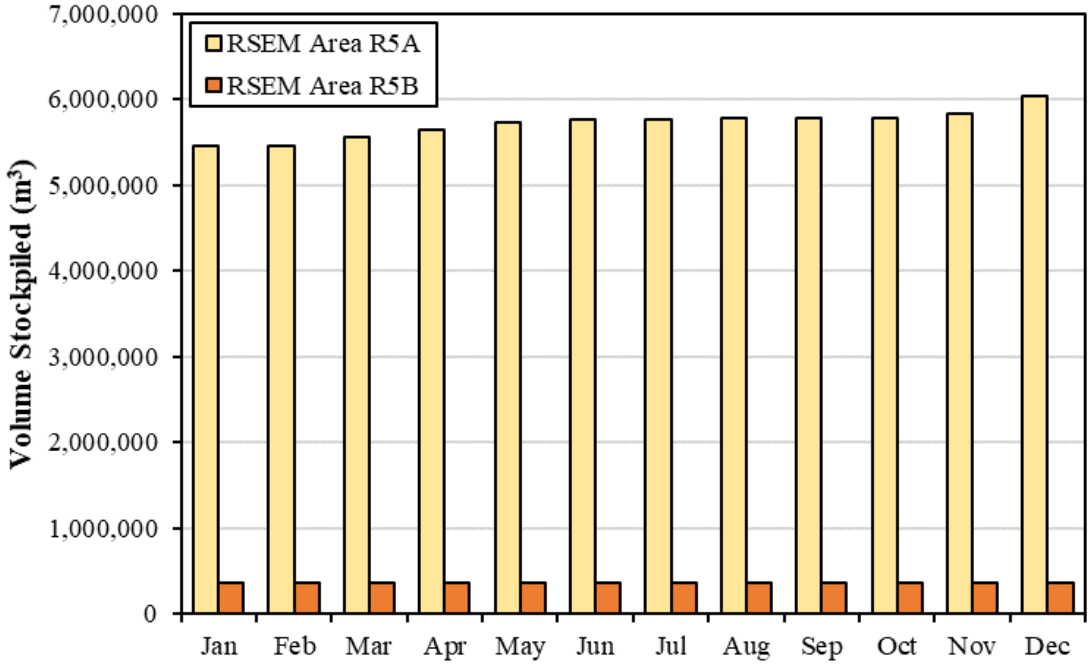


Figure 2-7: Overview of cumulative PAG material volumes stored in the RSEM R5A and RSEM R5B disposal areas in 2021.

2.3 Monitoring Program Summary

ARD/ML monitoring is undertaken in areas where bedrock is excavated or where these materials are deposited. Appropriate sampling locations are determined as construction activities proceed rather than routinely sampling at fixed monitoring stations.

Geochemical analysis of samples collected during the monitoring program include rinse pH measurements to determine surface pH, as well as acid-base accounting (ABA) and solid phase metals analysis. Rinse pH monitoring is generally focussed where samples were previously identified to produce circumneutral to alkaline drainage (rinse pH > 5.5). Where acidic drainage is prevalent, ARD mitigation strategies are identified and recommended. The original monitoring framework is described in PRHP's Acid Rock Drainage and Metal Leachate Management Plan (PRHP, 2017b) which is Appendix A of PRHP's Environmental Management Plan (PRHP, 2017a).

A revision to this management plan is that an annual ARD/ML Sampling Plan be developed by Lorax in the first quarter of each calendar year based on current site conditions and the additional operational experience gained in the previous year. The 2021 sampling plan recommends that new and confirmatory samples are collected from the major active and inactive excavation sites, RSEM deposition areas, and temporary PAG stockpiles (Lorax, 2021a). This sampling will direct material handling and storage strategies such as the

placement of a cover or fresh PAG within RSEM areas. Additional recommendations were provided to PRHP in support of Q3 and Q4 sampling.

In 2021, geochemical sampling was completed by PRHP personnel with guidance provided by Lorax personnel. The majority of the sampling occurred during three rounds of sampling which took place in April, July, and October/early November. Additional samples were also collected from RSEM Area L5 in May (n = 5) and August (n = 3). In total, 270 samples were analyzed for rinse pH (Table 2-7). Of these, 30 samples underwent more extensive geochemical testing including ABA and metals analysis.

Table 2-7:
Overview of Sample Distribution and Analyses Conducted

Location	Rinse pH	ABA and Metals
Left Bank		
RSEM Area L5 and RSEM L5 Extension	35	4
Left Bank Excavation	11	1
Right Bank		
RSEM Area R5A	66	5
RSEM Area R5B West exposure	13	0
Approach Channel and Auxiliary Spillway	54	6
Approach Channel Drainage Channel	10	1
777 Haul Road	13	3
Core Trench Excavation		
Left Bank Dam Core (LBDC)	6	1
Core Trench Excavation	43	8
Right Bank Dam Core (RBDC)	5	0
Zone 8	14	1
Total	270	30

2.3.1 Sample Collection

The recommended sample collection methods vary depending on the type of material being sampled. Samples collected from excavation sites were collected as linear trench samples, where a pick or hammer was used to excavate an approximately 1 m cut into the excavation face perpendicular to the bedding plane. Samples collected from the surface of PAG stockpiles and other graded or compacted areas were collected from shallow trenches, approximately 1 to 2 cm in depth. Trenches were dug with a pick. A sample was collected from the entire length of the trench (ranging from about 20–100 cm) at each location.

2.3.2 Analytical Methods

The surface rinse pH is conducted on the <2 mm particle size fraction (sorted by dry sieve) with no particle comminution. The procedure is based on that described in the Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (Price, 2009). The rinse pH analyses were conducted on site by PRHP personnel.

ABA and metals analyses are conducted at BV Labs as follows:

- Neutralization potential (NP) is determined using a Modified Neutralization Potential method, following the method outlined in Marchant and Lawrence (1991).
- Total sulphur (S) is determined using a LECO furnace.
- Sulphate-S and sulphide-S are determined by the procedure outlined in ASTM D2492-02, *Standard Test Method for Forms of Sulphur in Coal*. Sulphate-S is the HCl extractable S and sulphide-S is the HNO_3 extractable S.
- Non-Extractable S is determined by difference (Total S – Sulphate S – Sulphide S).
- Solid phase metals analyses are conducted on pulverized samples by digesting 0.50 g in *aqua regia* at 95°C for one hour. The extract is then diluted to 10.0 mL and analyzed for metals by inductively coupled plasma mass spectrometry (ICP- MS).

2.3.3 Classification of ARD Potential

The ARD potential of different geologic materials was defined prior to the start of construction, to facilitate effective material management. The criteria for determining the ARD potential of geologic materials that are excavated at the Project are defined by its Technical Specifications (IET, 2015). The acid generating potential of overburden and bedrock is also defined in Appendix E of BC Hydro's CEMP (BC Hydro, 2016a).

ABA criteria for classifying excavated material as PAG or NPAG were defined by the ratio of NP to acid potential (AP) as per IET, 2015. The NP/AP ratio, or net potential ratio (NPR), was used to identify PAG and NPAG mine rock. It is calculated from modified NP and total S AP, and is defined as:

- PAG: Material with an NPR ≤ 2; and
- NPAG: Material with an NPR > 2.

In addition to the above ABA criteria, a sample is considered AG that has a pH < 5.5 when tested using standard paste or rinse pH methods.

The potential for ARD from various geologic materials disturbed at the Project site has been assessed by a variety of geochemical test work (KCB, 2015). These initial analyses show that the shale bedrock units are PAG, while the overburden materials are NPAG. Since site excavations have been initiated, additional refinement was required for material types that cannot be readily classified as 'bedrock' or 'overburden'. These material types are largely restricted to the area around the Left Bank Excavation (LBEX) and include:

- Bedrock colluvium;
- Overburden colluvium;
- Weathered bedrock; and
- The transition zone between bedrock and overburden.

The ARD/ML designation of these materials was not included in Appendix E of BC Hydro's CEMP (BC Hydro, 2016a) or geochemical baseline studies (KCB, 2015). Based on ARD/ML monitoring data, classifications have since been developed by Lorax, which are shown in Table 2-8 below. A more detailed description of the rationale and details of the classification system is provided in the *Field Classification of Potentially Acid Generating Materials* (Lorax, 2017).

Table 2-8:
Acid Rock Drainage Classification for Different Geologic Material Types

Material Type	ARD Classification
Overburden[1]	NPAG
Overburden Colluvium[2]	NPAG
Transition Zone (<15% shale)[1]	NPAG
Transition Zone (>15% shale)[1]	PAG or AG*
Bedrock Colluvium[2]	AG
Weathered Bedrock[2]	AG
Fresh Bedrock[1]	PAG

[1] Defined in CEMP (BC Hydro, 2016b)
[2] Defined in LBEX (Lorax, 2017)
*Classified as AG or NPAG depending on weathered shale content.

2.3.4 Quality Assurance and Quality Control

The quality assurance and quality control (QA/QC) program for ABA and metals analyses involves a variety of internal laboratory protocols. These protocols involve duplicate samples and analytical standard analysis. About one duplicate was measured for every 10 samples at BV Labs. Internal laboratory quality control at BV Labs adheres to a precision specification of ±20% for metals and ±30% for sulphur and carbon species.

Neutralization potential precision specifications at BV Labs vary depending on the quantity of NP:

NP > 20 kg $CaCO_3$/t = ± 15%;

NP < 20 and > 10 kg $CaCO_3$/t = ± 20%; and

NP < 10 kg $CaCO_3$/t = ± 5 kg$CaCO_3$/t.

Any laboratory duplicate result or standard that does not adhere to the precision specifications triggers a re-analysis. Complete documentation of analytical QA/QC protocols are provided in Appendix 2-A.

In order to confirm the reproducibility of results from the field rinse pH testing conducted by PRHP personnel, a duplicate from approximately 1 in 10 field samples was submitted to BV Labs for analysis. The QA/QC results generally show reasonable agreement between field rinse pH measurements and laboratory rinse pH measurements (Figure 2-8). One Q4 sample had a slightly alkaline field pH reading and an acidic laboratory pH value. This sample may have become acidic in storage in the time between sample collection and laboratory analysis that was delayed over two months due to the laboratory being a target of a cyber attack.

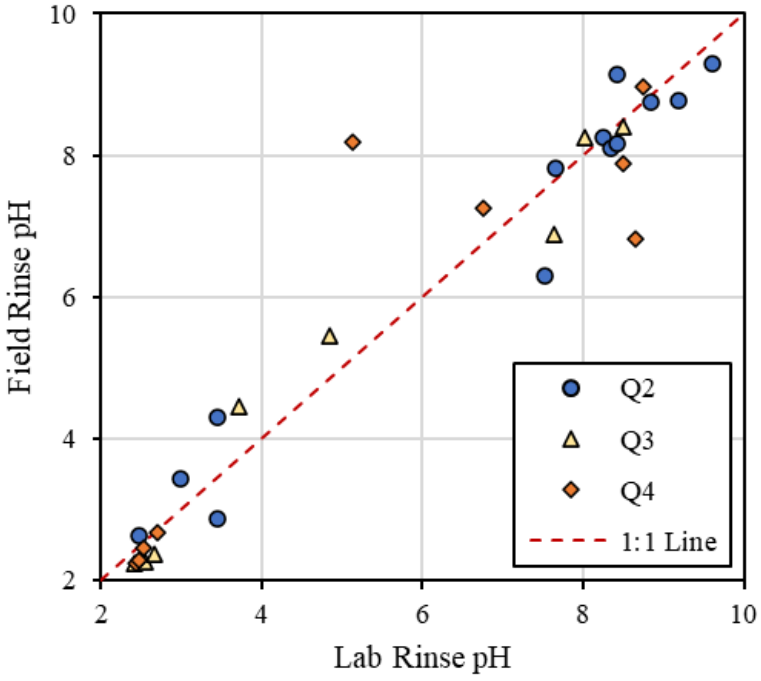


Figure 2-8: Comparison of 2021 field and laboratory rinse pH measurements

2.4 Geochemical Results

2.4.1 Rinse pH

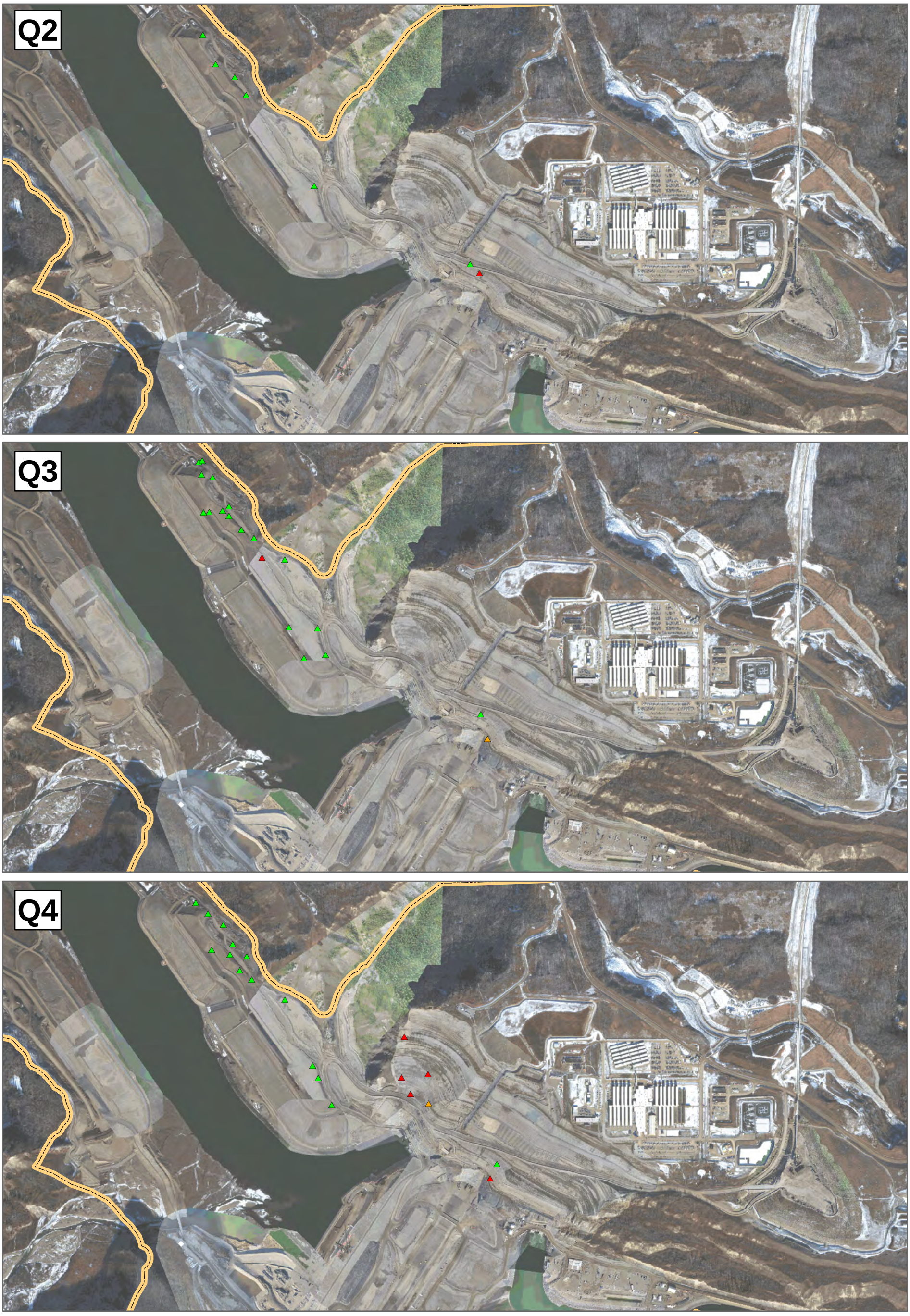
Rinse pH was identified as the primary geochemical parameter to assess whether a bedrock excavation or storage site is actively releasing net acidic drainage. The rinse pH values are used to group the samples into three categories representing neutral/alkaline (pH ≥ 7), slightly acidic/inert (5.5 < pH < 7), and acidic character (pH < 5.5). Permanent stockpiles in which acidic rock is identified require further mitigation such as covering with overburden. Management measures for excavation faces may include the collection and management of runoff or application of shotcrete. Geochemical monitoring is continued in areas where circumneutral rinse pH values are measured. The full database of rinse pH values for the 2021 samples is shown in Appendix 2-B, Table 1.

2.4.1.1 Left Bank

In 2021, samples on the Left Bank were collected at RSEM Area L5 and the RSEM Area L5 Extension (n = 35) and the LBEX (n = 11) (Figure 2-9). A large portion of RSEM Area L5 and the RSEM Area L5 Extension has been covered with overburden. Samples from these areas were collected from the locations where PAG material was visible at the surface. Samples were collected in Q2 through Q4 2021. The samples were generally classified as weathered bedrock, although the samples collected from the RSEM Area L5 Extension in October (n = 10) were classified as a mixture of shale and overburden, generally with 15-30% shale.

The majority of samples from RSEM Area L5 and the RSEM Area L5 Extension (34 of 35 samples) had neutral/alkaline rinse pH. The remaining sample had rinse pH < 5.5. This AG sample was collected from the RSEM Area L5 Extension in July. It is recommended that RSEM Area L5 and the RSEM Area L5 Extension areas are inspected in early 2022 following snow melt to identify areas where PAG material remains exposed. Continued monitoring of these areas is recommended until fully covered with overburden.

The majority of the material exposed in the LBEX is overburden; however, shale is exposed near the northwestern edge of the LBEX and at the base of the LBEX along Bench 0. Four of five samples collected from the northwestern portion of the LBEX were AG and the remaining sample had a rinse pH between 5.5 and 7.0. The rinse pH measurements for samples collected from Bench 0 were variable - two samples were AG, one sample had rinse pH between 5.5 and 7.0, and three samples were neutral. Water management will continue to be a key mitigation in this area until final mitigation can be implemented. Continued sampling of exposed bedrock in the LBEX is recommended for 2022.



LEGEND

Rinse pH

- <5.5
- 5.5-7
- >7
- Site C Boundary

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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2021 Annual Report

TITLE:

Left Bank 2021 Rinse pH Sampling Results

PROJECT #: A416-1

FIGURE: 2-9

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Table 2-9:
Statistical Overview of Rinse pH for 2021 Sampling Locations

Location	Statistic	Q2	Q3	Q4	Overall
Left Bank					
RSEM Area L5 and RSEM L5 Extension (n = 35)	Min	8.26	3.64	7.76	3.64
	Median	8.33	8.11	8.49	8.29
	Max	9.14	9.64	9.40	9.64
Left Bank Excavation (n = 11)	Min	4.52	5.54	2.67	2.67
	Median	-	6.4	3.25	4.52
	Max	7.02	7.26	8.27	8.27
Earthfill Dam					
Left Bank Dam Core (LBDC) (n = 6)	Min	8.04	-	-	8.04
	Median	9.28	-	-	9.28
	Max	10.3	-	-	10.3
Core Trench Excavation (n = 43)	Min	6.31	7.14	7.26	6.31
	Median	8.51	8.17	8.61	8.45
	Max	9.94	9.89	10.1	10.1
Right Bank Dam Core (RBDC) (n = 5)	Min	8.97	-	-	8.97
	Median	9.96	-	-	9.96
	Max	10.3	-	-	10.3
Zone 8 (n = 14)	Min	-	6.08	7.88	6.08
	Median	-	7.16	8.62	8.20
	Max	-	8.17	9.27	9.27
Right Bank					
RSEM Area R5A (n = 66)	Min	2.51	3.03	2.25	2.25
	Median	8.34	6.59	6.77	7.64
	Max	10.0	8.31	8.97	10.0
RSEM Area R5B West exposure (n = 13)	Min	2.61	4.27	2.49	2.49
	Median	5.94	6.32	4.11	4.71
	Max	8.08	7.95	8.21	8.21
Approach Channel and Auxiliary Spillway (n = 54)	Min	2.37	2.25	2.23	2.23
	Median	2.62	2.54	2.47	2.56
	Max	7.02	5.61	9.43	9.43
Approach Channel Drainage Channel (n = 10)	Min	2.48	2.84	2.39	2.39
	Median	2.63	3.75	2.82	2.87
	Max	2.96	5.44	3.19	5.44
777 Haul Road (n = 13)	Min	3.44	2.37	2.28	2.28
	Median	5.25	4.49	2.38	3.70
	Max	6.66	5.1	2.49	6.66

Note: No rinse pH sampling was conducted in 2021 Q1 due to frozen conditions

2.4.1.2 Earthfill Dam

Earthfill Dam sampling occurred in Q2 through Q4 2021 and focused primarily on active excavation areas at the Core Trench Excavation (n = 43) and deposition areas at Zone 8 (n = 14) (Figure 2-10). In Q2 2021, samples were also collected from the Left Bank Dam Core (LBDC; n = 6) and the Right Bank Dam Core (RBDC; n = 5). The majority of samples were classified as fresh bedrock, except for three samples from the LBDC and six samples at the Core Trench Excavation being classified as weathered bedrock.

The majority of the samples from the Core Trench Excavation (42 of 43) and Zone 8 (12 of 14) and all samples from the LBDC and RBDC show rinse pH > 7.0. The remaining samples from the Core Trench Excavation and Zone 8 have rinse pH values between 5.5 and 7.0. No samples from the Earthfill Dam were AG. Excavation of PAG bedrock in this area was completed in 2021 Q4 and exposed PAG in the excavation is being progressively covered during the construction of the Earthfill Dam. PAG material placement in Zone 8 increased in Q4 2021 and has continued into Q1 2022.

2.4.1.3 Right Bank

Right Bank sampling in 2021 focused on RSEM Area R5A (n = 66) and the Approach Channel and Auxiliary Spillway (n = 54). Samples were also collected from the Approach Channel Drainage Channel (n = 10), the 777 Haul Road (n = 13), and the exposure west of RSEM Area R5B (n = 13).

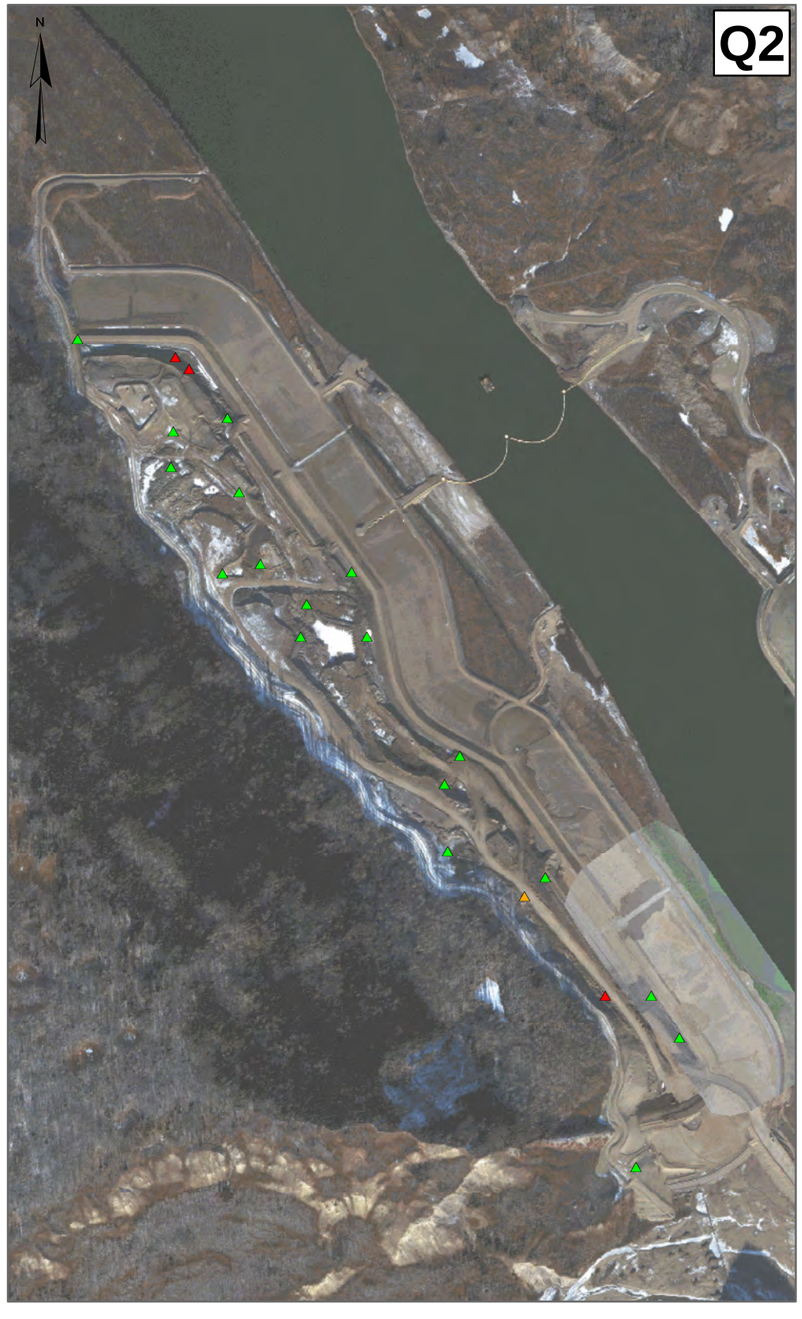
RSEM Area R5A was sampled in Q2 through Q4 2021 (Figure 2-10). Samples were generally classified as either fresh or weathered bedrock, except for five overburden samples collected in April. Overall, material placement in RSEM Area R5A has reduced the exposures of AG material at the surface through both placement of overburden and fresh PAG rock. The majority of samples collected in 2021 were either neutral/alkaline (56% overall) or had rinse pH between 5.5 and 7.0 (17% overall). The remaining samples (27%, or 18 of 66 samples) were AG. A greater proportion of AG samples was collected in Q3 and Q4 2021 (33% and 35% AG samples, respectively), in comparison to Q2 2021 (14% AG samples). The AG samples in each quarter were generally clustered at the northern end of the RSEM area. Placement of fresh bedrock and/or overburden should continue in order to minimize the development of AG conditions in this RSEM area.

The Approach Channel and Auxiliary Spillway area was sampled in Q2 through Q4 2021 (Figure 2-11). The majority of the samples were AG (44 of 54 samples, or 81%). One additional sample had rinse pH marginally above 5.5 (rinse pH = 5.6). The neutral/alkaline Approach Channel samples were limited to one sample from Q2 and eight samples collected in Q4. The eight neutral/alkaline Q4 samples were fresh bedrock collected from

recently excavated PAG exposures. This result is consistent with previous results showing that unweathered PAG bedrock is likely to have rinse pH (>7.0). Material with a neutral rinse pH is associated with runoff from this material having acceptable water quality. AG exposures remain in the western extent of the Approach Channel above the R5B-ACDC Ditch. This area was sampled in Q2 through Q4 2021, and all samples (n = 10) were AG. Continued excavation of the Approach Channel area is expected in 2022.

The PAG material exposed due to excavation along the 777 Haul Road was sampled in Q2 through Q4 2021. This area is located to the west of the Approach Channel. Eleven of the 13 samples were AG, and the remaining two samples had rinse pH values between 5.5 and 7.0. Continued monitoring of exposed PAG material along this exposure is recommended.

Samples were collected from a PAG exposure along an old road located to the southwest of RSEM Area R5B in Q2 through Q4 2021. Runoff from this exposure reports to the R5B West Ditch. Seven of the samples were AG, one had a rinse pH between 5.5 and 7.0, and five were neutral. The continued excavation of the Approach Channel will include excavation of the weathered bedrock, exposing fresh bedrock. Continued monitoring of this area is recommended.







LEGEND

Rinse pH

- <5.5
- 5.5-7
- >7

Notes: No samples were collected for rinse pH testing in Q1 2021

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VERSION:	1

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CLIENT:

PEACE RIVER HYDRO PARTNERS

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PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

RSEM Area R5A 2021
Rinse pH Sampling Results

PROJECT #: A416-1

FIGURE: 2-10

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Q2

Q3

Q4

LEGEND

Rinse pH

- <5.5
- 5.5-7
- >7
- Site C Boundary

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CLIENT:

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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

Right Bank 2021
Rinse pH Sampling Results

PROJECT #: A416-1

FIGURE: 2-11

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2.4.2 Solid-Phase Geochemistry

This section presents the solid-phase geochemical results for the samples submitted for ABA and solid phase metals testing in 2021. Complete monitoring results are presented in Appendix 2-B. Total sulphur AP and modified NP are used to calculate NPR. All samples with NPR values <2 are classified as PAG, and samples with a rinse pH or paste pH <5.5 are classified as AG (Section 2.2.1). Metal enrichment is determined by comparing metal concentrations to average upper continental crustal abundance (ACA) as per Rudnick and Gao (2014) (Table 2-10).

Table 2-10:
Average upper continental crust abundance used to evaluate metal enrichment

Element	units	Average Continental Abundance
Ag	ppb	53
Al	%	8.15
As	ppm	4.8
Ba	ppm	628
Bi	ppm	0.16
Ca	%	2.57
Cd	ppm	0.09
Co	ppm	17.3
Cr	ppm	92
Cu	ppm	28
Fe	%	3.92
Hg	ppm	0.05
K	%	2.32
La	ppm	31
Mg	%	1.50
Mn	ppm	774
Mo	ppm	1.1
Na	%	2.43
Ni	ppm	47
P	%	0.065
Pb	ppm	17
Sb	ppm	0.4
Se	ppm	0.09
Sr	ppm	320
Th	ppm	10.5
U	ppm	2.7
Zn	ppm	67

2.4.2.1 Left Bank

Five of the 46 samples collected on the Left Bank in 2021 were submitted for further geochemical analysis, including samples from RSEM Area L5 (n = 3), RSEM Area L5 Extension (n = 1), and the LBEX (n = 1). Both paste and rinse pH values were circumneutral to alkaline for the RSEM Area L5 and RSEM Area L5 Extension samples, while both pH measurements were acidic for the LBEX sample (Table 2-11). Paste pH and rinse pH values are generally similar, although the paste pH for the LBEX sample was 0.9 pH units greater than the rinse pH value.

The total S for 2021 Left Bank samples ranges from 0.44 wt.% (RSEM Area L5) to 0.89 wt.% (LBEX) (Table 2-11). The sulphur balance is made up of variable proportions of sulphate S, sulphide S, and non-extractable S. Sulphide S is typically an acid generating form of sulphur, whereas sulphate S and non-extractable S may be in either acid generating or non-acid generating forms. Non-extractable S is the portion of sulphur not accounted for in the HCl and HNO_3 extractions that are used to determine sulphate S and sulphide S, respectively. The total S for the RSEM Area L5 and RSEM Area L5 Extension samples is present dominantly as sulphide S (0.30 - 0.49 wt. %) with lesser sulphate S (<0.10 wt.%) and non-extractable S (≤0.18 wt.%) (Figure 2-12). In contrast, sulphate S is the dominant form of sulphur for the LBEX sample. This may be due to the presence of an acidic sulphate salt precipitate which forms on weathered surfaces. Due to the identification of the acidic sulphate salt precipitate in some samples previously collected at site, the total S is typically used to calculate the AP. Modified NP was relatively low (≤41 kg $CaCO_3$/t) in all samples. Two of the RSEM Area L5 samples submitted for ABA were classified as NPAG with NPR > 2, while one RSEM Area L5 sample and the RSEM Area L5 Extension sample were classified as PAG with rinse pH > 5.5 and NPR < 2 (Figure 2-13). The LBEX sample was classified as AG with rinse pH < 5.5 and NPR < 2.

Metals and metalloids generally exceeding 3x the ACA give an indication of metal enrichment. Ag was above 3x the ACA in all five samples, Se was above at least 3x the ACA in four samples, and Cd was above 3x the ACA in two samples. Arsenic and Mo were above 3x the ACA in one sample collected in October 2021 from the LBEX (Table 2-12). In addition, one sample from the RSEM Area L5 Extension had elevated P above 3x the ACA. There are several factors that influence the leaching rates of elements, including the mineral association and stability, as well as the chemistry of the water in contact with the rocks. Metal enrichment does not necessarily result in metal leaching. Water quality monitoring will continue to screen for these parameters and assess the relationship between solid-phase content of a species and its concentration in drainage.

Table 2-11:
Summary of 2021 Left Bank ABA Results

Sample ID	Sample Date	Paste pH	Rinse pH	Total S	Sulphate S	Sulphide S	Non-Extractable S	TAP	SAP	Modified NP	NPR
Units		pH Units	pH Units	wt%	wt%	wt%	wt%	kg $CaCO_3$/t	kg $CaCO_3$/t	kg $CaCO_3$/t	(Mod NP/TAP)
RSEM Area L5 and the RSEM Area L5 Extension											
L5-2021-MAY-04-77	4-May-21	8.18	8.25	0.44	0.07	0.30	0.07	13.8	9.4	40.5	2.9
L5-2021-MAY-04-79[a]	4-May-21	8.05	8.42	0.56	0.04	0.48	0.04	17.5	15.0	39.6	2.3
L5-2021-OCT-13-18	13-Oct-21	7.96	8.50	0.55	0.09	0.49	<0.02	17.2	15.3	17.4	1.0
L5EX 2021-JUL-25-78	25-Jul-21	8.45	8.49	0.7	0.06	0.46	0.18	21.9	14.4	32.3	1.5
Left Bank Excavation											
LBEX-2021-OCT-13-06	13-Oct-21	3.61	2.70	0.89	0.71	0.03	0.15	27.8	0.9	-1.3	-0.05

Notes:
SAP - Sulphide Acid Potential; TAP - Total S Acid Potential; NPR - Net Potential Ratio
All Left Bank samples submitted for ABA are classified as weathered bedrock
[a]L5-2021-MAY-04-79 was mislabelled as R5A-2021-APR-07-79 on the lab report
Grey shading indicates an NPR < 2.0

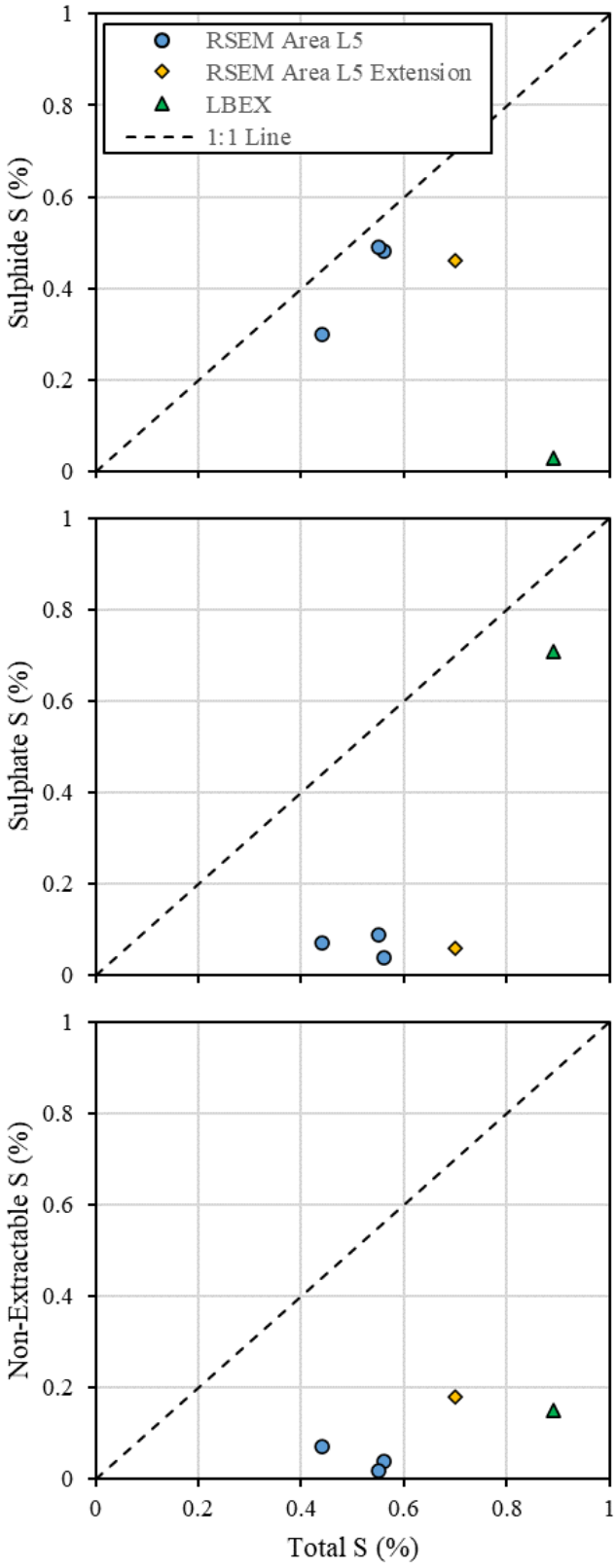

Figure 2-12: Sulphur species *versus* Total Sulphur for 2021 Left Bank samples

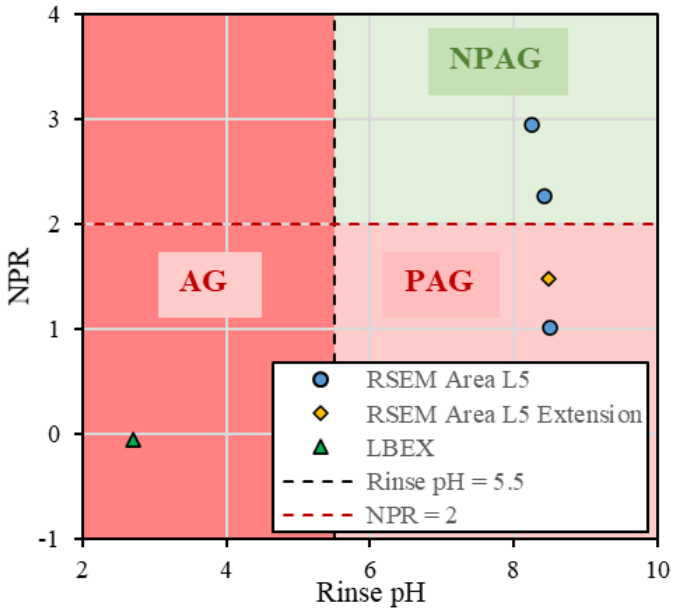

Figure 2-13: NPR *versus* Rinse pH for 2021 Left Bank samples

Note: NPAG: NPR > 2; PAG: NPR ≤ 2; AG: NPR ≤ 2 and rinse pH < 5.5.

2.4.2.2 Earthfill Dam

Ten samples from the Earthfill Dam were submitted for further geochemical characterization in 2021, including one sample from the Left Bank Dam Core (LBDC), eight samples from the Core Trench, and one sample from Zone 8. All Earthfill Dam samples had circumneutral to slightly alkaline paste and laboratory rinse pH values (Table 2-13).

Total S ranges from 0.43 to 1.38 wt.% for the Earthfill Dam samples. Sulphide S is the dominant sulphur species with sulphate and non-extractable S comprising relatively minor proportions (Figure 2-14). This result reflects that the samples are less weathered relative to samples collected from other areas. Modified NP values are relatively low (≤26 kg $CaCO_3$/t). All Earthfill Dam samples had NPR values < 2 with rinse pH > 5.5 and are classified as PAG (Figure 2-15).

All samples from the Eathfill Dam area had Ag and Se values above at least 3x the ACA. The Se contents of one of the Core Trench samples and the sample from Zone 8 were also above 10x the Se ACA. Other metals and metalloids were generally below 3x the ACA values, except for Cd in one Core Trench sample. As described above, elevated metals do not necessarily indicate parameters that will be elevated in drainage.

Table 2-12:
Summary of 2021 Left Bank Solid Phase Metals Results

Parameter	Units	RSEM Area L5 and L5 Extension (n = 4)			
		Min	Median	Max	LBEX-2021-OCT-13-06
Ag	ppb	207	244	268	227
Al	%	0.76	0.88	2.11	1.82
As	ppm	7.5	10.5	11.7	16.9
Au	ppb	<0.2	<0.2	<0.5	<0.5
B	ppm	<20	<20	28	14
Ba	ppm	14.2	371	470	11.8
Bi	ppm	0.15	0.215	0.23	0.24
Ca	%	0.61	1.33	1.48	0.29
Cd	ppm	0.2	0.275	0.33	0.28
Co	ppm	7.6	8.9	9.9	4.7
Cr	ppm	26.1	40.95	56.8	39
Cu	ppm	20	24.45	29.3	20.3
Fe	%	1.78	1.92	2.53	2.12
Ga	ppm	2.2	2.45	7.19	6.94
Hg	ppb	48	59	60	70
K	%	0.18	0.22	0.53	0.46
La	ppm	4.9	5.55	11.9	9.7
Mg	%	0.32	0.42	0.63	0.22
Mn	ppm	132	160.5	213	57
Mo	ppm	0.59	0.895	1.09	6.84
Na	%	0.09	0.1455	0.182	0.053
Ni	ppm	23.7	24.65	26	13
P	%	0.077	0.092	0.208	0.042
Pb	ppm	9.93	12.75	13.7	15
Sb	ppm	0.11	0.21	0.34	0.28
Sc	ppm	3.6	4.15	5.7	4.2
Se	ppm	<0.1	0.8	1.1	0.9
Sr	ppm	59.1	66.8	103	72.4
Te	ppm	0.02	0.045	0.06	0.16
Th	ppm	4.6	6.05	6.8	4
Ti	%	0.002	0.0025	0.006	<0.001
Tl	ppm	<0.02	0.055	0.06	<0.02
U	ppm	1	1.4	1.5	1.3
V	ppm	24	25	55	51
W	ppm	<0.1	<0.1	<0.1	<0.1
Zn	ppm	80.8	99.8	116	63.8

Notes:
Values shaded in light grey exceed 3x the ACA (Average upper continental crustal abundance; Rudnick and Gao, 2014)
Values shaded in dark grey exceed 10x the ACA

Table 2-13:
Summary of 2021 Earthfill Dam ABA Results

Sample ID	Sample Date	Paste pH	Rinse pH	Total S	Sulphate S	Sulphide S	Non-Extractable S	TAP	SAP	Modified NP	NPR
Units		**pH Units**	**pH Units**	**wt%**	**wt%**	**wt%**	**wt%**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**(Mod NP/TAP)**
Left Bank Drainage Channel											
LBDC-2021-APR-09-74[a]	09-Apr-21	8.61	9.61	0.43	0.06	0.40	<0.02	13.4	12.5	9.00	0.67
Core Trench											
LBCTE-2021-APR-09-59[b]	09-Apr-21	7.22	7.52	0.70	0.04	0.69	<0.02	21.9	21.6	10.2	0.47
LBCTE-2021-APR-09-62	09-Apr-21	7.97	8.34	0.63	0.03	0.58	0.02	19.7	18.1	12.2	0.62
LBCTE-2021-APR-09-64	09-Apr-21	8.09	8.42	0.79	0.05	0.63	0.11	24.7	19.7	18.2	0.74
LBCTE-2021-APR-09-66	09-Apr-21	8.25	9.19	0.51	0.03	0.46	0.02	15.9	14.4	14.3	0.90
LBCTE-2021-APR-09-68	09-Apr-21	8.34	8.84	0.52	0.04	0.46	0.02	16.3	14.4	10.6	0.65
LBCTE-2021-APR-09-70	09-Apr-21	7.56	7.65	0.78	0.07	0.75	<0.02	24.4	23.4	14.3	0.59
CT-2021-JUL-25-66	25-Jul-21	7.75	8.01	0.79	0.06	0.6	0.13	24.7	18.8	12.6	0.51
CT-2021-NOV-03-83	03-Nov-21	7.45	6.75	1.38	0.1	1.09	0.19	43.1	34.1	26.1	0.61
Zone 8											
ZONE 8 2021-JUL-25-56	25-Jul-21	7.65	7.64	0.5	0.07	0.38	0.05	15.6	11.9	12.2	0.78

Notes:
Modified NP – Modified Neutralization Potential, NPR – Net Potential Ratio
All Earthfill Dam samples submitted for ABA are classified as fresh bedrock, except for the July sample from the Core Trench which is classified as weathered bedrock
[a]LBDC-2021-APR-09-74 was mislabelled as LBDA-2021-APR-09-74 on the lab report
[b]LBCTE-2021-APR-09-59 was mislabelled as RBCTE-2021-APR-09-59 on the lab report
Grey shading indicates an NPR < 2.0

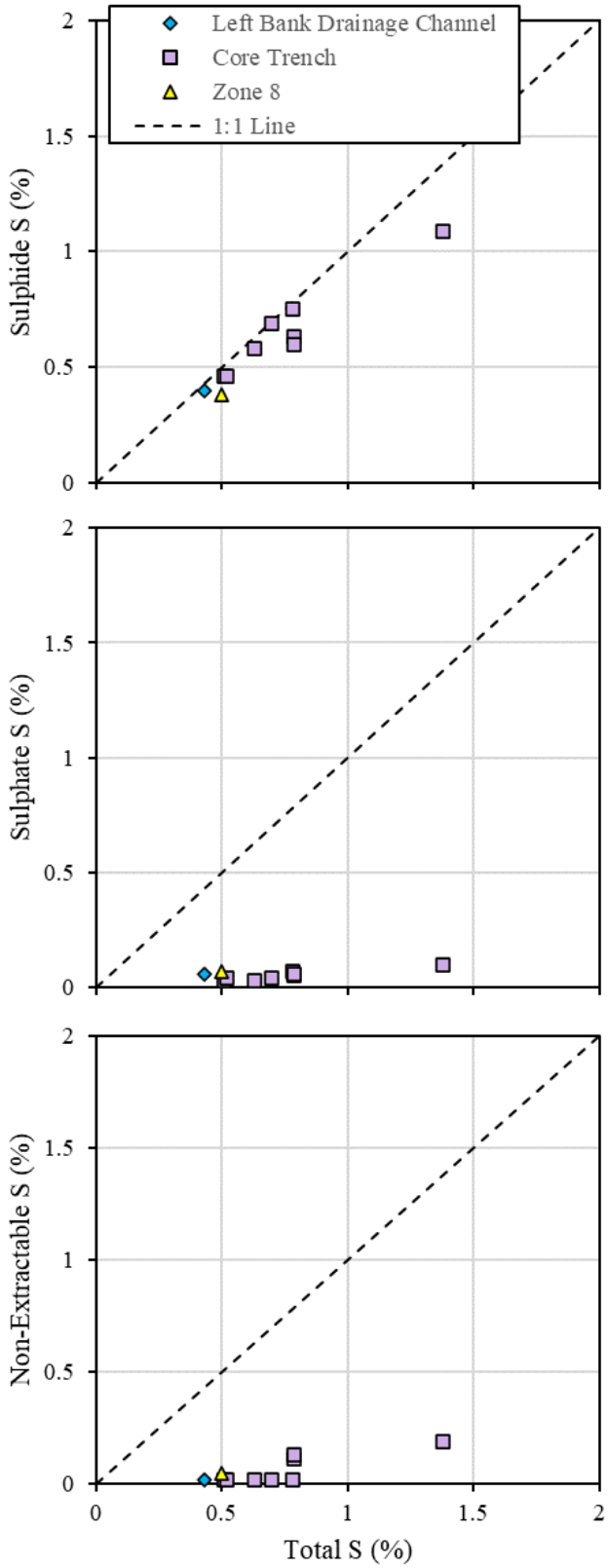

Figure 2-14: Sulphur species *versus* Total Sulphur for 2021 Earthfill Dam samples

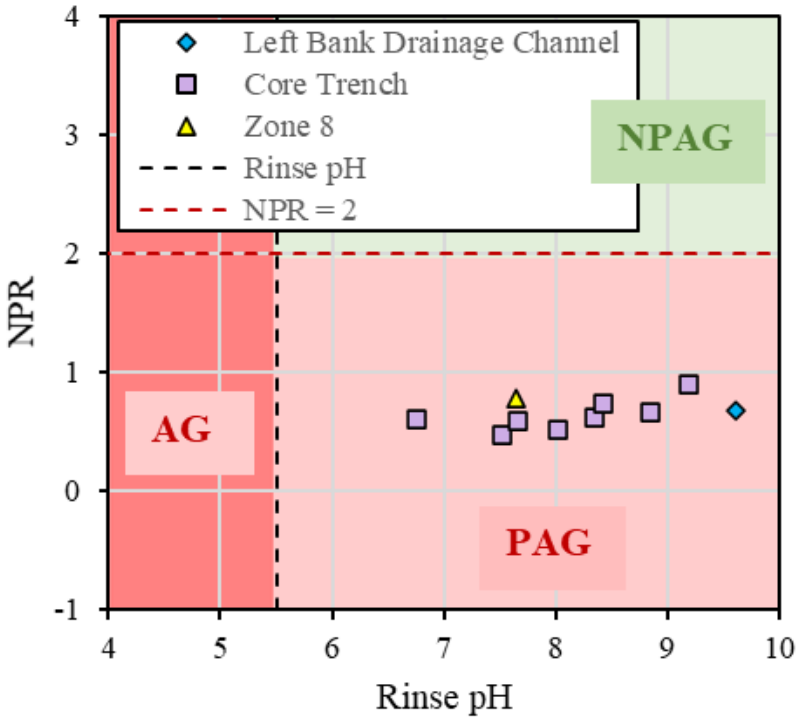

Figure 2-15: NPR *versus* Rinse pH for 2021 Earthfill Dam samples

Note: NPAG: NPR > 2; PAG: NPR ≤ 2; AG: NPR ≤ 2 and rinse pH < 5.5.

Table 2-14:
Summary of 2021 Earthfill Dam Solid Phase Metals Results

Parameter	Units		Core Trench (n = 8)			
		LBDC-2021-APR-09-74[a]	Min	Median	Max	ZONE 8 2021-JUL-25-56
Ag	ppb	298	243	269	302	244
Al	%	0.94	0.7	0.965	1.98	0.78
As	ppm	7.2	7.3	10.05	12.2	10.2
Au	ppb	<0.2	<0.2	0.2	0.5	0.6
B	ppm	<20	<20	<20	26	<20
Ba	ppm	469	7.6	398.5	652	616
Bi	ppm	0.21	0.2	0.21	0.26	0.37
Ca	%	0.43	0.47	0.635	1.19	0.64
Cd	ppm	0.23	0.18	0.21	0.56	0.25
Co	ppm	9.7	8.4	9.6	11.1	12.8
Cr	ppm	26.7	21.7	28.65	98	15.4
Cu	ppm	25.3	22.4	25.25	36	28.8
Fe	%	1.65	1.74	2.06	3.72	1.59
Ga	ppm	2.7	1.9	2.7	6.58	1.9
Hg	ppb	50	49	60.5	86	41
K	%	0.25	0.19	0.25	0.47	0.21
La	ppm	5.2	3.9	5.25	8.6	4.4
Mg	%	0.24	0.26	0.295	0.51	0.33
Mn	ppm	98	118	123.5	225	200
Mo	ppm	0.7	0.49	0.63	3.04	0.43
Na	%	0.171	0.03	0.0605	0.113	0.052
Ni	ppm	27	23.2	26.2	29.2	32.5
P	%	0.089	0.068	0.0855	0.088	0.081
Pb	ppm	12.1	11.2	12.75	14.1	15.2
Sb	ppm	0.11	0.11	0.13	0.27	0.2
Sc	ppm	4.4	3.8	4.8	5.3	4.1
Se	ppm	0.8	0.6	0.85	1	1.2
Sr	ppm	66.5	43.9	55.4	66.4	55.4
Te	ppm	0.06	0.02	0.055	0.07	0.06
Th	ppm	6.4	4.4	6.45	7.5	7.8
Ti	%	0.002	0.002	0.002	0.004	0.001
Tl	ppm	0.05	<0.02	0.055	0.07	0.05
U	ppm	1.5	1	1.5	1.5	1.1
V	ppm	25	18	26	56	18
W	ppm	<0.1	<0.1	<0.1	<0.1	<0.1
Zn	ppm	104	91.6	103	118	128

Notes:
[a]LBDC-2021-APR-09-74 was mislabelled as LBDA-2021-APR-09-74 on the lab report
Values shaded in light grey exceed 3x the ACA (Average upper continental crustal abundance; Rudnick and Gao, 2014)
Values shaded in dark grey exceed 10x the ACA

2.4.2.3 Right Bank

Fifteen of the 156 samples collected on the Right Bank in 2021 were submitted for further geochemical analyses. This included samples from RSEM Area R5A (n = 5), the Approach Channel and Auxiliary Spillway (n = 6), the ACDC (n = 1), and the 777 Haul Road (n = 3). A summary of the geochemical results for the Right Bank samples that were submitted for the additional analyses are included in Table 2-15.

The RSEM Area R5A samples had variable rinse and paste pH values, ranging from acidic to slightly alkaline. The majority of the Approach Channel samples, the ACDC sample, and the samples from the 777 Haul Road excavation had acidic rinse and paste pH values (pH < 5.5). The only Approach Channel sample with a circumneutral paste pH (pH 6.24) was collected in Q4 from a recent excavation. This sample had an acidic laboratory rinse pH (pH 5.13) but a slightly alkaline field rinse pH (pH 8.18). The discrepancy in rinse pH may be due to the sampling becoming acidic in storage.

The majority of the Right Bank samples had slightly higher paste pH values in comparison to rinse pH values; however, in general, the paste pH and rinse pH are both classified as either neutral (>5.5) or acidic (<5.5). The only exception is the sample collected in Q4 from the Approach Channel (AC-2021-NOV-03-99) which had a paste pH of 6.24 and a rinse pH of 5.13. A higher paste pH value indicates that there may be stored neutralization capacity within the particle clasts that is released during pulverization.

The total S content of the bedrock samples collected from shale exposures and stockpiles on the Right Bank ranged from 0.35 wt.% (RSEM Area R5A) to 2.09 wt.% (Approach Channel) (median: 1.22 wt.%). The dominant form of sulphur is variable for the Right Bank samples and several samples contain relatively high proportions of both sulphate S and sulphide S (Figure 2-16). In general, RSEM Area R5A samples have a higher proportion of sulphide S, while Approach Channel, ACDC, and 777 Haul Road samples contain a higher proportion of sulphate S. The sulphate S is likely related to the presence of an acidic sulphate precipitate and higher proportions of sulphate S generally indicate a more weathered sample. It should be noted that sulphide S, rather than sulphate S, is the dominant form of sulphur for the Approach Channel sample collected in Q4 from a fresh exposure. This is consistent with less weathered material. Non-extractable S makes up a quarter of the total S balance on average for the samples collected on the Right Bank.

Modified NP was low (<15 kg $CaCO_3$/t) in all 2021 Right Bank samples. To understand the relationship between PAG and currently acidic (AG) materials, laboratory rinse pH values are plotted against NPR, calculated as the ratio of modified NP to AP (Figure 2-17). This plot illustrates that the majority of the Right Bank samples submitted for further analysis are AG; however, two of the RSEM Area R5A samples have rinse pH values above 5.5 and are classified as PAG. If the field rinse pH was used, one sample from the Approach Channel (AC-2021-NOV-03-99) would also be classified as PAG rather than AG.

With respect to metals and metalloids, Ag values are above 3x the ACA in all 15 of the Right Bank samples (Table 2-16). In addition, Cd and Se contents are above 3x the ACA in at least ten of the samples. The Se values are also above 10x the ACA in 10 of 15 samples. Other elements that are less frequently above 3x the ACA include As (one sample), Mo (six samples), and Zn (one sample). As stated in the discussion on the Left Bank samples, metal leaching is dependent on a number of factors and metal enrichment does not necessarily imply the potential for metal leaching.

Table 2-15:
Summary of 2021 Right Bank ABA Results

Sample ID	Sample Date	Paste pH	Rinse pH	Total S	Sulphate S	Sulphide S	Non-Extractable Sulphur	TAP	SAP	Modified NP	NPR
Units		**pH Units**	**pH Units**	**wt%**	**wt%**	**wt%**	**wt%**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**(Mod NP/TAP)**
RSEM Area R5A											
R5A-2021-APR-07-09	07-Apr-21	3.84	3.45	0.96	0.47	0.33	0.16	30.0	10.3	-2.70	-0.090
R5A 2021-JUL-24-08	24-Jul-21	5.35	3.71	1.33	0.29	0.74	0.3	41.6	23.1	4.8	0.115
R5A 2021-JUL-24-17	24-Jul-21	5.35	4.84	1.44	0.35	0.75	0.34	45.0	23.4	5.3	0.118
R5A-2021-OCT-14-27	14-Oct-21	8.23	8.74	0.35	0.03	0.32	<0.02	10.9	10.0	5.7	0.521
R5A-2021-OCT-14-43	14-Oct-21	8.28	8.64	0.51	0.03	0.42	0.06	15.9	13.1	14	0.878
Approach Channel and Auxiliary Spillway											
AUX SPILL-2021-APR-08-34	08-Apr-21	4.08	3.45	1.07	0.50	0.40	0.17	33.4	12.5	0.0	0
AC 2021- JUL-24-37	24-Jul-21	2.92	2.41	1.03	0.82	0.02	0.19	32.2	0.6	-11.9	-0.370
AC 2021- JUL-24-47	24-Jul-21	2.6	2.55	1.22	0.86	0.02	0.34	38.1	0.6	-14.3	-0.375
AC-2021-OCT-15-62	15-Oct-21	3.25	2.53	1.18	0.76	0.03	0.39	36.9	0.9	-10.8	-0.293
AC-2021-OCT-15-72	15-Oct-21	3.18	2.43	1.42	1.1	0.04	0.28	44.4	1.3	-18.4	-0.415
AC-2021-NOV-03-99	03-Nov-21	6.24	5.13	2.09	0.11	1.41	0.57	65.3	44.1	3	0.046
Approach Channel Drainage Channel											
ACDC-2021-APR-08-047	08-Apr-21	2.63	2.47	0.83	0.86	0.01	<0.02	25.9	0.3	-9.30	-0.36
777 Haul Road											
777-2021-APR-07-029	07-Apr-21	3.51	2.99	1.58	0.40	0.92	0.26	49.4	28.8	0.50	0.010
777 2021-JUL-24-30	24-Jul-21	2.56	2.66	1.53	0.77	0.33	0.43	47.8	10.3	-14.9	-0.312
777-2021-OCT-15-56	15-Oct-21	3.1	2.48	1.67	0.94	0.43	0.3	52.2	13.4	-18.9	-0.362

Notes:
Modified NP – Modified Neutralization Potential, NPR – Net Potential Ratio
All Right Bank samples submitted for ABA are classified as weathered bedrock, except for the November 3 Approach Channel sample which is classified as fresh bedrock
Grey shading indicates an NPR < 2.0

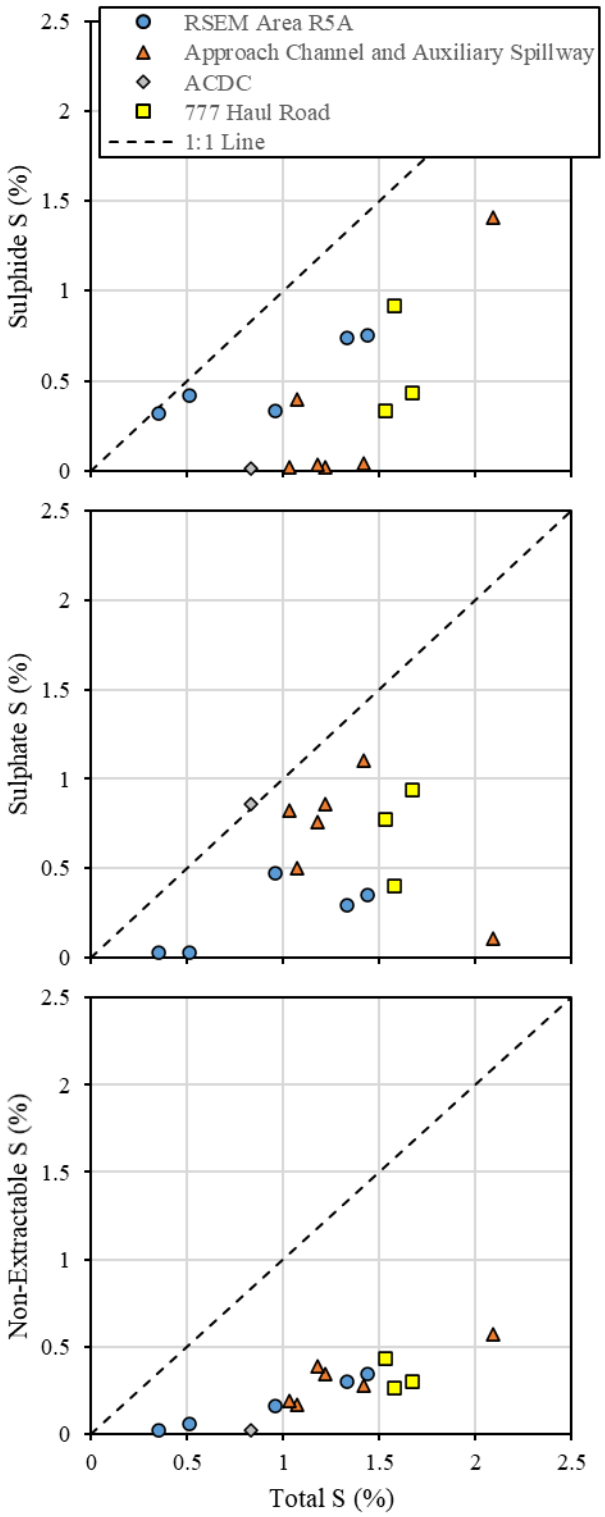

Figure 2-16: Sulphur species *versus* Total Sulphur for 2021 Right Bank samples

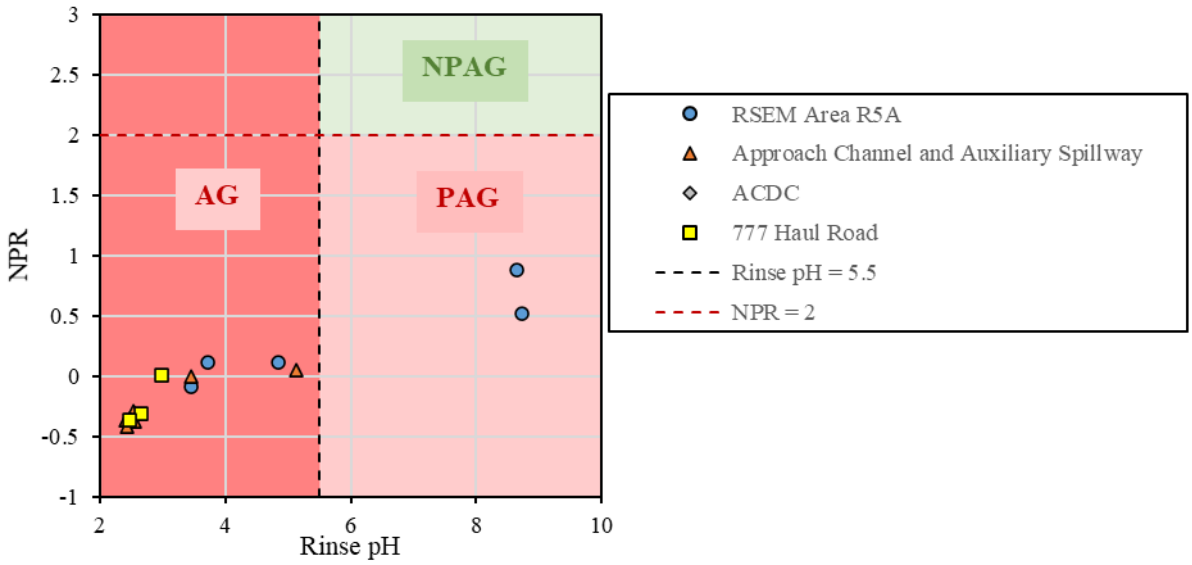

Figure 2-17: NPR *versus* Rinse pH for 2021 Right Bank samples

Note: NPAG: NPR > 2; PAG: NPR ≤ 2; AG: NPR ≤ 2 and rinse pH < 5.5.

Table 2-16:
Summary of 2021 Right Bank Solid Phase Metals Results

Parameter	Units	RSEM Area R5A (n = 5)			Approach Channel and Auxiliary Spillway (n = 6)						
		Min	Median	Max	Min	Median	Max	ACDC-2021-APR-08-047	777-2021-APR-07-029	777 2021-JUL-24-30	777-2021-OCT-15-56
Ag	ppb	238	361	373	365	412	422	350	449	392	419
Al	%	0.64	0.94	2.15	0.59	1.43	2.12	0.88	0.93	0.66	2.13
As	ppm	9.3	12.5	12.8	9.8	12.95	14.2	13.1	14.2	14	15
Au	ppb	<0.2	<0.5	0.8	0.2	0.5	0.5	<0.2	<0.2	0.5	<0.5
B	ppm	<20	<20	26	19	20	21	<20	<20	<20	18
Ba	ppm	14.6	256	453	4.2	122.4	321	214	219	291	4.1
Bi	ppm	0.18	0.28	0.28	0.28	0.29	0.32	0.28	0.3	0.31	0.25
Ca	%	0.26	0.55	0.68	0.3	0.38	0.5	0.29	0.37	0.36	0.39
Cd	ppm	0.17	0.33	0.62	0.12	0.37	0.65	0.17	0.75	0.68	0.6
Co	ppm	7.8	8.4	11.2	3	4.95	11.4	7.5	8.2	8	7.9
Cr	ppm	18.6	22.9	51	12.2	28.5	38	21.9	20.3	13.3	43
Cu	ppm	26	30.8	31.6	22.7	32.25	39	22.3	35.8	32.8	38.2
Fe	%	1.59	2	2.14	1.64	2.07	2.47	1.84	2.82	2.08	2.47
Ga	ppm	1.8	2.5	7.24	1.7	4.61	7.17	2.5	2.5	1.8	7.16
Hg	ppb	30	67	89	69	75	95	91	84	106	60
K	%	0.2	0.27	0.54	0.24	0.39	0.59	0.29	0.26	0.22	0.58
La	ppm	3.6	4.2	14.1	3	6.4	9.3	4.8	4.4	3.4	7.7
Mg	%	0.27	0.29	0.44	0.17	0.25	0.37	0.2	0.38	0.26	0.41
Mn	ppm	57	94	149	30	46	95	43	80	63	62
Mo	ppm	0.37	1.22	3.3	0.88	3.425	4.03	1.29	4.35	3.35	3.24
Na	%	0.025	0.102	0.295	0.019	0.047	0.17	0.01	0.026	0.032	0.056
Ni	ppm	23.4	26.9	28.6	11.3	18.8	36.3	28.3	30.3	29.1	28.6
P	%	0.056	0.071	0.12	0.05	0.0575	0.069	0.068	0.064	0.069	0.07
Pb	ppm	11.9	15.2	16.8	16.2	17	17.3	15.9	17.2	16.5	16
Sb	ppm	0.11	0.2	0.27	0.07	0.11	0.19	0.07	0.09	0.2	0.06
Sc	ppm	3.7	4.5	6.3	2.8	4.7	5.9	4.1	5.3	4.2	6
Se	ppm	<0.1	1	1.4	0.8	1.1	1.6	1.1	1.7	1.4	0.8
Sr	ppm	42.3	67.9	79.6	23.7	48.5	59.2	30.7	52.5	56.2	45.2
Te	ppm	<0.02	0.05	0.09	0.02	0.045	0.07	0.05	0.07	0.04	<0.02
Th	ppm	5.4	6.9	7.4	3.8	6.25	7	7.4	6.6	7.9	4.6
Ti	%	<0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	<0.001
Tl	ppm	<0.02	0.08	0.14	0.02	0.04	0.17	0.1	0.12	0.17	<0.02
U	ppm	1	1.3	1.4	0.4	0.85	2.8	0.8	1.3	1.3	1.2
V	ppm	20	23	54	18	41	60	24	28	19	59
W	ppm	<0.1	0.1	0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Zn	ppm	102	116	129	68.8	82.25	146	76.6	210	132	132

Notes:
Values shaded in light grey exceed 3x the ACA (Average upper continental crustal abundance; Rudnick and Gao, 2014)
Values shaded in dark grey exceed 10x the ACA

2.5 Sediment Monitoring

The accumulated sediment at the bottom of sediment control ponds that may be removed by dredging is referred to as dredgeate. Sediment samples were collected from the MWTF sludge pond located adjacent to RSEM Area R6, MWTF reactor and Crusher settling ponds located in Area A. The geochemical characteristics and hydrocarbon content of the samples were analysed to ensure the appropriate long-term management plans are implemented for the sludge and dredgeate.

The sediment screening approach and regulatory context is discussed in section 2.5.1. The results of chemical characterization for the crusher sediment settling pond samples are presented and discussed in section 2.5.2 and the MWTF reactor and pond sludge in Section 2.5.3. The laboratory Certificates of Analysis are included in Appendix 2-C.

2.5.1 Dredgeate Sediment Screening Approach

Section 7.2.4 of the Acid Rock Drainage and Metal Leachate Management Plan (BC Hydro, 2016a) addresses the testing and disposal of accumulated sediment from a PAG contact sediment control pond. It states the following:

> "If the Contractor must remove accumulated sediment from a PAG contact sediment pond, the Contractor shall test the sediment for metals and hydrocarbon to ensure it meets the regulated limits for the site where that accumulated sediment will be deposited."; and,
>
> "Prior to decommissioning or infilling of the PAG contact sediment pond, the contractor shall test the sediment for metals and hydrocarbon to ensure it meets the regulated limits."

Although the Crusher sediment and the MWTF sludge samples are not collected from PAG sediment ponds, the same approach was applied for the assessment of these materials.

The regulated limits for the site where accumulated sediment will be deposited are not explicitly stated and are inferred to be those established pursuant to the B.C. *Environmental Management Act*, as outlined by the Contaminated Site Regulation (CSR) and Hazardous Waste Regulation (HWR).

The CSR describes a risk-based approach for classifying the risk a contaminated site poses, and sets out requirements for site characterization and remediation, depending on the permitted land use. The CSR sets out numerical standards for the classification of contaminated sites based on the expected land use and exposure pathways. For the evaluation of sediment disposal, numerical standards listed by the British Columbia CSR were used for reference as a proxy for assessing the level of environmental risk posed by

RSEM area pond sediments. The lowest standard of the following three parts of CSR Schedule 3.1 was selected and used to screen the applicable parameter.

- Part 1 - Numerical Soil Standards, Column 9 Industrial (IL);
- Part 3 - Generic Numerical Soil Standards to Protect Ecological Health; Column 10 Industrial (IL); and
- Part 2 - Generic Numerical Soil Standards to Protect Human Health; Column 10 Industrial (IL).

In addition to the CSR, Section 1 of the HWR defines hazardous waste and should a material be defined as such; its disposal would be regulated by the HWR. It is possible that sediments accumulating in the ponds could contain leachable toxic waste and the Toxic Characteristic Leaching Procedure (TCLP) was conducted on the sediments and the TCLP leachate chemistry was screened against the Leachate Quality Standards listed in Schedule 4; Table 1 of the HWR.

2.5.2 Crusher Sediment Pond Dredgeate Results

Dredgeate samples collected from the four Area A Crusher sediment collection ponds are screened against the lowest CSR standard for industrial lands as noted above. In addition, the total metal contents of these samples are screened against the range of concentrations measured in the non-PAG overburden materials, which are similar to the crusher feed materials that the sediments were separated from in the crusher. The list of metal(oid)s and the corresponding screening values for the Crusher Pond sediment samples are presented in Table 2-17.

Concentrations for most metals in the dredgeate samples were below the applicable CSR Soil Standard (Table 2-17). However, arsenic exceeded the CSR Soil Standard in all four dredgeate samples by 3 mg/kg to 8 mg/kg. The arsenic content also slightly exceeded the maximum concentration measured in the 20 NPAG overburden samples.

The hydrocarbon content of the sediment pond dredgeate samples were below the CSR standards used to screen the samples and the results are summarized in Table 2-18.

The leachable toxic waste metal evaluation of the sediment pond dredgeate samples is summarized in Table 2-19 and the regulated leachable metal(oids) were below the HWR leachate standards for all samples. Of particular note is that the concentration of leachable arsenic in the leachate was below the detection limit.

One dredgeate sample (Crusher-SE-SLP) was submitted for ABA characterization to evaluate the quantity and speciation of the sulphur contained in the sediment (Table 2-20). The results indicate that the sample is non-acid generating with an NPR >> 2.0. The measured total sulphur content = 0.05 %S, predominately reports to the insoluble fraction, which would likely be in the form of non-acid generating organic sulphur.

Table 2-17:
Total Metal Content of Crusher Sediment Pond Dredgeate

Parameter	Units	Crusher-SE-SLP	Crusher-SW-SLP	Crusher-C-SLP	Crusher-E-SLP	NPAG Material (Left Bank)[1]				CSR Soil Standard[2]	CSR Notes
		31-03-21	31-03-21	17-03-21	17-03-21	n	Minimum	Median	Maximum		
Moisture	%	29	43	37	38	-	-	-	-	-	No standard in Schedule 3.1
pH	pH	8.45	8.37	8.47	8.42	20	7.4	8.195	8.79	-	No standard in Schedule 3.1
Total Metals											
Aluminum (Al)	mg/kg	8,130	9,120	9,610	10,700	20	6,800	12,400	22,700	250,000	Schedule 3.1 Part 2; IL
Antimony (Sb)	mg/kg	1.23	1.27	1.14	1.21	20	0.46	0.735	1.32	40	Schedule 3.1 Part 3; IL
Arsenic (As)	mg/kg	13.3	15.7	14.1	17.8	20	6.3	7.9	13.9	10	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Barium (Ba)	mg/kg	319	359	372	381	20	301	347.5	655	1,500	Schedule 3.1 Part 1; IL-toxicity to to soil invertebrates
Beryllium (Be)	mg/kg	0.43	0.53	0.53	0.6	-	-	-	-	1	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 6.5 (lowest CSR standard)
Bismuth (Bi)	mg/kg	0.15	0.23	0.18	0.22	20	0.08	0.185	0.34	-	No standard in Schedule 3.1
Cadmium (Cd)	mg/kg	0.704	0.808	0.796	0.988	20	0.58	1.035	1.24	50[a]	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH <7 (1 mg/kg); pH>8 (50 mg/kg)
Calcium (Ca)	mg/kg	38,400	37,700	41,700	39,200	20	8,700	37,450	50,300	-	No standard in Schedule 3.1
Chromium (Cr)	mg/kg	27.5	27.1	27	29	20	35.2	41.2	104	60	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Cobalt (Co)	mg/kg	11.8	13	11.3	14.5	20	8.1	12.9	19.1	25	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Copper (Cu)	mg/kg	28.1	32.6	29.1	36.8	20	19.2	34.4	61.9	75	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.5 (lowest CSR standard); std varies with hardness, receiving hardness >= 200 mg/L is assumed
Iron (Fe)	mg/kg	30,600	33,100	34,400	34,700	20	20,300	26,150	40,200	150,000	Schedule 3.1 Part 2; IL
Lead (Pb)	mg/kg	13.2	14.7	13.9	16	20	8.05	13.65	20.6	200	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.0 (lowest CSR standard); std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed
Lithium (Li)	mg/kg	9.2	9.71	10.4	10.3	-	-	-	-	450	Schedule 3.1 Part 2; IL
Magnesium (Mg)	mg/kg	11,500	11,400	13300	12700	20	3,900	12,200	15,000	-	No standard in Schedule 3.1
Manganese (Mn)	mg/kg	645	648	675	640	20	275	458	728	2,000	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Mercury (Hg)	mg/kg	0.087	0.087	0.081	0.099	20	0.031	0.0515	0.113	75	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Molybdenum (Mo)	mg/kg	4.08	5.61	5.12	7.7	20	1.48	2.725	5.28	150	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants
Nickel (Ni)	mg/kg	30.5	34	31.5	35.7	20	24.3	40.25	66.7	9,500[a]	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH<5 (90 mg/kg); pH>8 (9,500 mg/kg); std varies with receiving water hardness, receiving hardness > 180 mg/L is assumed.
Phosphorous (P)	mg/kg	874	957	1050	1040	20	810	895	1,350	-	No standard in Schedule 3.1
Potassium (K)	mg/kg	958	1100	1340	1500	20	900	1,900	3,300	-	No standard in Schedule 3.1
Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	0.55	20	0.1	0.8	1.7	1	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Silver (Ag)	mg/kg	0.126	0.184	0.195	0.249	20	0.085	0.219	0.378	40	Schedule 3.1 Part 3; IL
Sodium (Na)	mg/kg	133	130	145	141	20	140	365	1,590	1,000	Schedule 3.1 Part 1; Na ion; IL-toxicity to to soil invertebrates and plants, no standard for groundwater
Strontium (Sr)	mg/kg	68.8	69.3	81.2	80.8	20	65.6	102	130	-	No standard in Schedule 3.1
Thallium (Tl)	mg/kg	0.207	0.256	0.221	0.275	20	0.08	0.185	0.3	25	Schedule 3.1 Part 3; IL
Tin (Sn)	mg/kg	0.28	0.33	0.36	0.47	-	-	-	-	300	Schedule 3.1 Part 3; IL
Titanium (Ti)	mg/kg	108	82.3	128	85.6	20	50	170	290	-	No standard in Schedule 3.1
Uranium (U)	mg/kg	1.06	1.33	1.43	1.79	20	0.6	1.35	1.7	150	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Vanadium (V)	mg/kg	33.7	36.6	40	44.5	20	27	41.5	70	300	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Zinc (Zn)	mg/kg	92	110	106	133	20	53.7	113	178	150	Schedule 3.1 Part 1; IL-groundwater flow to surface (freshwater); pH <6.0 (lowest CSR standard); std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed
Zirconium (Zr)	mg/kg	3.72	3.5	4.4	3.83	-	-	-	-	-	No standard in Schedule 3.1

[1] Site C Clean Energy Project, Implementation Design Dam Site Geochemical Characterization – Status at the End of 2013, Revision 1. Prepared by Klohn Crippen Berger Ltd. and SNC-Lavalin Inc. for BC Hydro. BKS-03-101. January 2015.
[2] Contaminated Site Regulation (CSR) B.C. Reg. 375/96, amended January 24, 2019; Schedule 3.1, Industrial Land. Matrix Standards for human health (intake of contaminated soil) and Environmental Protection (toxicity to soil invertebrates and plants) in Schedule 3.1 Part 1 and the Industrial Land Environmental Protection (groundwater flow to surface water used by aquatic life) standard are applied; the the lowest standard is shown in the table. If no standard is specified in Generic Numerical Standards to Protect Ecological Health (Schedule 3.1 Part 3), then Generic Numerical Standards to Protect Human Health (Schedule 3.1, Part 2) are used.
Bold text indicates the dredgeate exceeded the applicable CSR Soil Standard. [a]Standard is pH dependent.

Table 2-18:
Hydrocarbon Content of Crusher Sediment Pond Dredgeate and MWTF Sludge

Parameter	Units	MWTF Reactor 1 Sludge	2021-06 MWTF-SLP	MWTF Cell 3 Sludge	Crusher-SE-SLP	Crusher-SW-SLP	Crusher-C-SLP	Crusher-E-SLP	CSR Soil Standard[1]	CSR Notes
		12-01-21	03-06-21	23-09-21	31-03-21	31-03-21	17-03-21	17-03-21		
Non-Halogenated Hydrocarbons										
VPH (VH6 to 10 - BTEX)	mg/kg	<28	<8.6	<28	<8.6	<8.6	<8.6	<8.6	200	Schedule 3.1 Part 3; IL
Benzene	mg/kg	<0.016	0.041	<0.016	<0.0050	<0.0050	<0.0050	<0.0050	2.5	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Toluene	mg/kg	<0.16	0.13	<0.16	<0.050	<0.050	<0.050	<0.050	0.5	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Ethylbenzene	mg/kg	<0.033	0.1	<0.033	<0.010	<0.010	<0.010	<0.010	200	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
MTBE	mg/kg	<0.33	<0.040	<0.04	<0.040	<0.040	<0.040	<0.040	20,000	Schedule 3.1 Part 2; IL
Styrene	mg/kg	<0.098	<0.062	<0.099	<0.030	<0.030	<0.030	<0.030	50	Schedule 3.1 Part 3; IL
Xylenes (Total)	mg/kg	<0.080	0.31	<0.14	<0.057	<0.057	<0.057	<0.057	20	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Extractable Hydrocarbons										
LEPH (C10-C19 less PAH)	mg/kg	<220	<100	<280	<100	<100	<100	<100	2,000	Schedule 3.1 Part 3; IL
HEPH (C19-C32 less PAH)	mg/kg	<220	120	<280	<100	<100	<100	<100	5,000	Schedule 3.1 Part 3; IL
Oil and Grease	mg/kg	-	100	<280	<100	<100	<100	<100	-	No standard in Schedule 3.1
Total PAH	mg/kg	<0.10	0.6	0.16	0.053	0.096	0.036	0.057	-	No standard in Schedule 3.1
Acenaphthylene	mg/kg	<0.010	<0.0050	<0.012	<0.0050	<0.0050	<0.0050	<0.0050	-	No standard in Schedule 3.1
Acenaphthene	mg/kg	<0.010	<0.0050	<0.012	<0.0050	<0.0050	<0.0050	<0.0050	15,000	Schedule 3.1 Part 2; IL
Anthracene	mg/kg	<0.0080	<0.0040	<0.0096	<0.0040	<0.0040	<0.0040	<0.0040	30	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates; no standard groundwater (AL-freshwater)
Benzo(a)anthracene	mg/kg	<0.020	<0.010	<0.024	<0.010	<0.010	<0.010	<0.010	10	Schedule 3.1 Part 3; IL
Benzo(b&j)fluoranthene	mg/kg	<0.020	<0.010	<0.024	0.018	0.029	0.016	0.025	10	Schedule 3.1 Part 3; IL
Benzo(k)fluoranthene	mg/kg	<0.020	<0.010	<0.024	<0.010	<0.010	<0.010	<0.010	10	Schedule 3.1 Part 3; IL
Benzo(g,h,i)perylene	mg/kg	<0.040	0.049	<0.048	0.02	0.049	0.028	0.047	-	No standard in Schedule 3.1
Benzo(a)pyrene	mg/kg	<0.020	<0.010	<0.024	<0.010	<0.010	<0.010	<0.010	50	Schedule 3.1 Part 1; IL-human intake of soil; no standard groundwater (AL-freshwater)
Chrysene	mg/kg	<0.020	<0.010	<0.024	0.011	0.016	0.012	0.016	4,500	Schedule 3.1 Part 2; IL
Dibenz(a,h)anthracene	mg/kg	<0.040	<0.020	<0.048	<0.020	<0.020	<0.020	<0.020	10	Schedule 3.1 Part 3; IL
Fluoranthene	mg/kg	<0.020	<0.010	<0.024	<0.010	<0.010	<0.010	<0.010	200	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates; no standard groundwater (AL-freshwater)
Fluorene	mg/kg	<0.020	0.023	<0.024	<0.010	<0.010	<0.010	<0.010	9,500	Schedule 3.1 Part 2; IL
Indeno(1,2,3-cd)pyrene	mg/kg	<0.040	<0.020	<0.048	<0.020	<0.020	<0.020	<0.020	10	Schedule 3.1 Part 3; IL
1-Methylnaphthalene	mg/kg	<0.020	-	-	<0.010	0.01	-	-	1,000	Schedule 3.1 Part 2; IL
2-Methylnaphthalene	mg/kg	0.024	0.25	0.072	0.01	0.013	<0.010	<0.010	950	Schedule 3.1 Part 2; IL
Naphthalene	mg/kg	<0.020	0.17	0.038	<0.010	0.011	<0.010	<0.010	20	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates
Phenanthrene	mg/kg	<0.020	0.083	0.047	0.032	0.041	0.024	0.03	50	Schedule 3.1 Part 3; IL
Pyrene	mg/kg	<0.020	0.029	<0.024	<0.010	0.014	<0.010	0.01	100	Schedule 3.1 Part 3; IL
Quinoline	mg/kg	-	-	-	<0.020	<0.020	-	-	10	Schedule 3.1 Part 2; IL

[1] Contaminated Site Regulation (CSR) B.C. Reg. 375/96, amended January 24, 2019; Schedule 3.1, Industrial Land. Matrix Standards for human health (intake of contaminated soil) and Environmental Protection (toxicity to soil invertebrates and plants) in Schedule 3.1 Part 1 and the Industrial Land Environmental Protection (groundwater flow to surface water used by aquatic life) standard are applied; the lowest standard is shown in the table. If no standard is specified in Generic Numerical Standards to Protect Ecological Health (Schedule 3.1 Part 3), then Generic Numerical Standards to Protect Human Health (Schedule 3.1, Part 2) are used.

Table 2-19:
Leachable Toxic Metal Content of Crusher Sediment Pond Dredgeate and MWTF Sludge

Parameter	MWTF Reactor 1 Sludge	2021-06 MWTF-SLP	MWTF Cell 3 Sludge	Crusher-SE-SLP	Crusher-SW-SLP	Crusher-C-SLP	Crusher-E-SLP	HWR Leachable Toxic Waste Standard[1]
(TCLP Leachate)	12-01-21	03-06-21	23-09-21	31-03-21	31-03-21	17-03-21	17-03-21	
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/kg	mg/kg	mg/L
Metals								
Arsenic (As)	<0.50	<0.5	<0.5	<0.10	<0.10	<0.10	<0.10	2.5
Barium (Ba)	<1.0	1.8	1.1	2.42	2.61	2.5	2.57	100
Boron (B)	<1.0	<1.0	<1	<0.10	<0.10	<0.10	<0.10	500
Cadmium (Cd)	<0.10	<0.10	<0.1	<0.10	<0.10	<0.10	<0.10	0.5
Chromium (Cr)	<0.50	<0.50	<0.5	<0.10	<0.10	<0.10	<0.10	5
Copper (Cu)	<1.0	<1.0	<1	<0.10	<0.10	<0.10	<0.10	100
Lead (Pb)	<0.50	<0.50	<0.5	<0.10	<0.10	<0.10	<0.10	5
Mercury (Hg)	<0.020	<0.020	<0.02	<0.002	<0.002	<0.0020	<0.0020	0.1
Selenium (Se)	<0.10	<0.10	<0.1	<0.10	<0.10	<0.10	<0.10	1
Silver (Ag)	<0.50	<0.5	<0.5	<0.010	<0.010	<0.010	<0.010	5
Uranium (U)	<0.20	<0.20	<0.2	<0.10	<0.10	<0.10	<0.10	10
Zinc (Zn)	<1.0	<1.0	<1	<0.10	<0.10	<0.10	<0.10	500

[1] Hazardous Waste Regulation (HWR) B.C. Reg. 63/88, amended November 1, 2017. Schedule 4, Table 1. Only parameters with a standard are shown in the table.

Table 2-20:
Acid-Base Accounting of the Crusher Sediment Pond Dredgeate

Sample ID	Paste pH	Total S (%)	Sulphate S (%)	Sulphide S (%)	Insoluble S (%)	Modified NP ($kgCaCO_3/t$)	NPR
CRUSHER C SLP	8.13	0.05	0.01	0.01	0.03	125	417

The geochemical assessment of the crusher sediment pond dredgeate samples indicates that it is appropriate to dispose the dredgeate sediments within a PAG RSEM Area using appropriate placement procedures. Although several metal(oid) concentrations exceeded the CSR standard, these concentrations remained within the range reported for operational PAG monitoring and baseline NPAG monitoring. The metal content of the dredgeate samples is consistent with the dredgeate sediment being derived from fine particulate transported as TSS from RSEM areas to the pond. The dredgeate samples had hydrocarbon content below the CSR standards and the TCLP leachable metal concentrations were below the applicable HWR leachate standards.

2.5.3 MWTF Sludge Dredgate Results

MWTF sludge samples were collected as listed below:

- January 12 from the MWTF Reactor #1 that is used to mix lime and reagents with the PAG contact influent pumped from the AK Pond;
- June 3 from Cell 1 of the Sludge Pond where the majority of solids are settled; and
- September 23 from Cell 3 the final cell in the series.

A combined total of approximately 400 m^3 of sludge was removed on January 26th, June 1st to 3rd and October 6th to 9th. Sludge removed in June and October was placed in geotextile bags for dewatering and deposited in RSEM R5A.

The total metal content of the samples is screened against the lowest CSR standard for industrial lands as noted previously in Section 2.5.1. The total metal content of the samples is also screened against the range of concentrations measured in PAG bedrock and non-PAG overburden, which is a material that has been approved for storage in the RSEM Area R5A. The list of metal(oid)s and the corresponding screening values for the MWTF reactor and sludge pond samples are presented in Table 2-21. Concentrations for most metals in the samples were below the applicable CSR Soil Standard except for total sodium that exceeds the CSR Soil Standard in all samples but is within the range measured from PAG bedrock and non-PAG material, respectively. The Cell 3 Sludge sample also had elevated cobalt.

The hydrocarbon content of all the MWTF sludge samples is below the CSR standards that were used to screen the samples, as shown in Table 2-18.

The leachable metal content of the MWTF sludge samples is summarized in Table 2-19 and the regulated metal(oid)s were below the HWR leachate standards used to screen the samples.

Table 2-21:
Total Metal Content of MWTF Sludge

Parameter	Units	MWTF Reactor 1 Sludge	2021-06 MWTF-SLP	MWTF Cell 3 Sludge	PAG Material deposited in RSEM Area R5A[1]				NPAG Material (Left Bank) [2]				CSR Soil Standard [3]	CSR Notes
		12-01-21	03-06-21	23-09-21	n	Minimum	Median	Maximum	n	Minimum	Median	Maximum		
Moisture	%	55	49	64	-	-	-	-					-	No standard in Schedule 3.1
pH	pH	11.6	9.16	9.09	137	2.31	6.7	10.6	20	7.4	8.195	8.79	-	No standard in Schedule 3.1
Total Metals														
Aluminum (Al)	mg/kg	4400	3,270	4700	12	5,300	8,200	11,700	20	6,800	12,400	22,700	250,000	Schedule 3.1 Part 2; IL
Antimony (Sb)	mg/kg	0.29	0.47	0.42	12	0.09	0.17	0.27	20	0.46	0.735	1.32	40	Schedule 3.1 Part 3; IL
Arsenic (As)	mg/kg	1.67	3.12	4.88	12	9.2	11.9	22.3	20	6.3	7.9	13.9	10	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Barium (Ba)	mg/kg	150	391	415	12	237	399.5	580	20	301	347.5	655	1,500	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates
Beryllium (Be)	mg/kg	<0.40	0.22	0.32	1	0.76	0.76	0.76	-	-	-	-	1	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 6.5 (lowest CSR standard)
Bismuth (Bi)	mg/kg	<0.20	ND	<0.2	12	0.22	0.29	0.34	20	0.08	0.185	0.34	-	No standard in Schedule 3.1
Cadmium (Cd)	mg/kg	<0.10	0.254	1.05	12	0.15	0.33	0.43	20	0.58	1.035	1.24	50[a]	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH <7 (1 mg/kg); pH>8 (50 mg/kg)
Calcium (Ca)	mg/kg	415000	175,000	331000	12	1,600	3,350	6,400	20	8,700	37,450	50,300	-	No standard in Schedule 3.1
Chromium (Cr)	mg/kg	1.9	5.97	8.04	12	12.4	18.65	29	20	35.2	41.2	104	60	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Cobalt (Co)	mg/kg	5.78	8.25	43.5	12	1	8.85	13.4	20	8.1	12.9	19.1	25	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Copper (Cu)	mg/kg	4.2	12.3	15.5	12	14.9	28.95	34.6	20	19.2	34.4	61.9	75	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.5 (lowest CSR standard); std varies with hardness, receiving hardness >= 200 mg/L is assumed
Iron (Fe)	mg/kg	2530	8,790	10300	12	13,200	18,800	23,400	20	20,300	26,150	40,200	150,000	Schedule 3.1 Part 2; IL
Lead (Pb)	mg/kg	0.96	3.75	3.94	12	11.1	15.95	28.7	20	8.05	13.65	20.6	200	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.0 (lowest CSR standard); std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed
Lithium (Li)	mg/kg	2.7	7.11	9.27	1	21.3	21.3	21.3	-	-	-	-	450	Schedule 3.1 Part 2; IL
Magnesium (Mg)	mg/kg	7400	4,280	9550	12	500	2,350	3,100	20	3,900	12,200	15,000	-	No standard in Schedule 3.1
Manganese (Mn)	mg/kg	174	228	939	12	10	86.5	154	20	275	458	728	2,000	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Mercury (Hg)	mg/kg	<0.10	<0.050	<0.05	12	0.00006	0.083	0.107	20	0.031	0.0515	0.113	75	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Molybdenum (Mo)	mg/kg	0.27	0.67	0.80	12	0.46	1.3	14.4	20	1.48	2.725	5.28	150	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants
Nickel (Ni)	mg/kg	18.6	24.5	146	12	3.9	25.3	38.6	20	24.3	40.25	66.7	9,500[a]	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH<5 (90 mg/kg); pH>8 (9,500 mg/kg); std varies with receiving water hardness, receiving hardness > 180 mg/L is assumed.
Phosphorous (P)	mg/kg	81	205	275	12	570	710	970	20	810	895	1,350	-	No standard in Schedule 3.1
Potassium (K)	mg/kg	215	754	845	12	2,000	2,700	3,400	20	900	1,900	3,300	-	No standard in Schedule 3.1
Selenium (Se)	mg/kg	<1.0	<0.50	0.54	12	0.7	1	2.3	20	0.1	0.8	1.7	1	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Silver (Ag)	mg/kg	<0.10	0.081	0.074	12	0.28	0.3565	0.473	20	0.085	0.219	0.378	40	Schedule 3.1 Part 3; IL
Sodium (Na)	mg/kg	1210	1,070	1220	12	120	855	3,000	20	140	365	1,590	1,000	Schedule 3.1 Part 1; Na ion; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Strontium (Sr)	mg/kg	1010	730	855	12	44.5	58.6	74.1	20	65.6	102	130	-	No standard in Schedule 3.1
Thallium (Tl)	mg/kg	<0.10	0.058	0.064	12	0.05	0.09	0.31	20	0.08	0.185	0.3	25	Schedule 3.1 Part 3; IL
Tin (Sn)	mg/kg	1.06	1.33	1.34	1	0.7	0.7	0.7	-	-	-	-	300	Schedule 3.1 Part 3; IL
Titanium (Ti)	mg/kg	30.7	23.1	14.3	12	10	10	<50	20	50	170	290	-	No standard in Schedule 3.1
Uranium (U)	mg/kg	1.7	1.47	3.52	12	0.6	1.24	1.6	20	0.6	1.35	1.7	150	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Vanadium (V)	mg/kg	18.7	12.3	14.3	12	20	25.5	31	20	27	41.5	70	300	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Zinc (Zn)	mg/kg	20.2	52.1	138	12	18.6	111.5	155	20	53.7	113	178	150	Schedule 3.1 Part 1; IL-groundwater flow to surface (freshwater); pH <6.0 (lowest CSR standard); std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed
Zirconium (Zr)	mg/kg	1.9	2.08	3.08	1	2.8	2.8	2.8	-	-	-	-	-	No standard in Schedule 3.1

[1] ABA and rinse pH test results for geochemistry samples collected in 2018. Site C Clean Energy Project Acid Rock Drainage and Metal Leachate 2018 Annual Report. 1 February 2019.
[2] Site C Clean Energy Project, Implementation Design Dam Site Geochemical Characterization – Status at the End of 2013, Revision 1. Prepared by Klohn Crippen Berger Ltd. and SNC-Lavalin Inc. for BC Hydro. BKS-03-101. January 2015.
[3] Contaminated Site Regulation (CSR) B.C. Reg. 375/96, amended January 24, 2019; Schedule 3.1, Industrial Land. Matrix Standards for human health (intake of contaminated soil) and Environmental Protection (toxicity to soil invertebrates and plants) in Schedule 3.1 Part 1 and the Industrial Land Environmental Protection (groundwater flow to surface water used by aquatic life) standard are applied; the lowest standard is shown in the table. If no standard is specified in Generic Numerical Standards to Protect Ecological Health (Schedule 3.1 Part 3), then Generic Numerical Standards to Protect Human Health (Schedule 3.1, Part 2) are used.
Bold text indicates the dredgeate exceeded the applicable CSR Soil Standard. [a]Standard is pH dependent.

3. Surface Water Quality Monitoring

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3. Surface Water Quality Monitoring

3.1 Purpose and Objectives

The purpose of the surface water quality monitoring program is to meet PRHP's water quality monitoring requirements for PAG-contact water, which are stated in the BC Hydro and PRHP ARD/ML Management Plans. The specific objectives of the program are:

- To verify water quality predictions;
- To assess water quality within the construction site, including RSEM ponds and upgradient areas that affect them;
- To guide water management and verify the effectiveness of sediment pond operation; and
- To analyze water quality in PAG-containing RSEM sediment ponds that discharge to the Peace River, so as to assess compliance with end-of-pipe discharge limits.

3.2 Monitoring Program and Results

The PAG-contact water monitoring and compliance requirements are set out in Sections 7.2, 7.3 and 7.4.2 of the BC Hydro ARD/ML Management Plan. Requirements for non-PAG contact water are set out in CEMP Section 4.14 Surface Water Quality Management. This report addresses the surface water quality monitoring and reporting requirements noted in Section 7.2.2 (RSEM end of pipe water quality), 7.3.2 (PAG containing RSEM material and contact water monitoring), and 7.4.2 (Exceedance Response Plan).

Other requirements are addressed separately. These include requirements related to toxicity (Sections 7.2.1 and 7.3.1 of the BC Hydro ARD/ML Management Plan), Peace River water quality downstream of each RSEM (7.2.3), and Peace River water quality monitoring (7.3.4). These requirements are addressed in other documents.

The aspects of the monitoring program that are addressed in this report are:

- Continuous monitoring of discharge flow from each RSEM sediment control pond discharge pipe (Section 1.6);
- Continuous monitoring (15 minute intervals) of pH, turbidity and electrical conductivity using *in situ* sonde measurements of PAG-contact RSEM sediment control pond water quality, when discharging (Section 3.2.5.8);
- Daily field measurements and analytical water quality samples collected end of pipe from each PAG containing RSEM sediment control pond (Section 3.2.2 through Section 3.2.5);

- Periodic field measurements and analytical samples collected in-pond from each PAG containing RSEM sediment control pond when not discharging (Section 3.2.2 through Section 3.2.5);
- Daily, weekly or periodic field measurements and analytical samples of water quality at upstream sumps and ditches (Section 3.2.2 through Section 3.2.5); and,
- Current turbidity and TSS relationships for PAG containing RSEM sediment control ponds (Section 4.1).

Analytical measurements include general water chemistry and total and dissolved metals. Most analyses were completed by BV at their laboratory in Burnaby, B.C., which is accredited to the ISO 17025 standard for laboratory testing by the Standards Council of Canada (SCC). However, due to a cyberattack November 20, the BV server was taken off-line and the lab was unable to process samples. Monitoring samples collected from November 25 through December 31 were directed to ALS Environmental (ALS) in Burnaby, BC. ALS is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA). The BV and ALS locations are listed as qualified laboratories under the British Columbia Environmental Data Quality Assurance (EDQA) Regulation. The approach used to screen water quality results is presented in Section 3.2.1.

The results of the 2021 water quality monitoring program are summarized below for the Left Bank (Section 3.2.2), the Earthfill Dam (Section 3.2.3) and the Right Bank (Section 3.2.4). Analytical measurements are described by station. The network of monitoring stations for the Site C project has been adapted as site conditions change. Some stations that were established in earlier construction phases are no longer in use and some new stations have been added.

Although the water management system is designed and operated by others, Lorax outlines water management information supplied by PRHP to provide context for the water quality results reported in these sections. The network of monitoring stations where samples were obtained in 2021 is discussed for each respective area in the sections below.

The Quality Assurance/Quality Control (QA/QC) monitoring results are summarized in Section 3.2.5. Tabulated water quality results for the 2021 ARD program are provided in:

- Appendix 3-A – 2021 *In Situ* Continuous Sonde Measurement Water Quality Data (*i.e.*, continuously logged measurements from in-pond fixed probes);
- Appendix 3-B – 2021 *In Situ* Field Measurement Water Quality Data;
- Appendix 3-C – 2021 Analytical Sample and Field Duplicate Water Quality Data; and
- Appendix 3-D – 2021 Analytical Field Blank Water Quality Data

- Appendix 3-E Water Quality Monitoring Field QA/QC Program
- Appendix 3-F: Bureau Veritas (Burnaby) Scope of Accreditation
- Appendix 3-G: Bureau Veritas (Calgary) Scope of Accreditation
- Appendix 3-H: ALS (Burnaby) Scope of Accreditation
- Appendix 3-I: ALS Analytical QA/QC Program
- Appendix 3-J: Bureau Veritas Lab Investigation

3.2.1 Water Quality Screening Approach

Results from PAG-containing RSEM sediment control ponds have been compared against the end of pipe (EOP) discharge limits specified in BC Hydro's ARD/ML Management Plan (in the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23). Discharges from The Septimus Siding (Area 30) pond and discharges from the Earthfill Dam were also compared to British Columbia Water Quality Guidelines (WQG) for the protection of aquatic life (BC ENV, 2021). The RSEM EOP limits are reproduced in Table 3-1 for reference. Non-PAG contact water discharges are compared to WQG and are discussed in the applicable sections.

Table 3-1:
End-of-Pipe (EOP) Discharge Limits for PAG-containing RSEM Sediment Ponds

Parameter	Units	End-of-Pipe Discharge Limit
TSS	mg/L	BC Water Quality Guidelines[1]
pH	pH units	6.0 – 9.0
Cadmium	mg/L	0.00029
Cobalt		0.55
Copper		0.011
Zinc		0.033

[1] Approved British Columbia Water Quality Guidelines for the Protection of Aquatic Life (2019)

With respect to evaluating TSS, it is assumed that, during clear flow conditions (when background TSS is below 25 mg/L), the RSEM end-of-pipe discharge limit (*i.e.*, the BC short-term WQG for TSS) is exceeded if the TSS in discharged water exceeds the background concentration by 25 mg/L at any one time for a duration of 24 hours. Because water quality sampling is conducted daily, the TSS exceedance screening protocol developed by PRHP for clear flow conditions in Peace River requires a TSS concentration in discharged water be above the BC short-term WQG for two consecutive days to be considered an exceedance of the RSEM end-of-pipe limit. During turbid flow conditions in Peace River, when background TSS is 25 mg/L or higher, an exceedance is triggered when a single sample is above the corresponding calculated BC WQG for TSS.

Water quality at stations within the construction site upgradient of RSEM sediment ponds are compared to RSEM EOP limits to inform water management. Water that accumulates at these stations is not discharged directly to the Peace River. It is conveyed to RSEM sediment ponds, where it mixes with water from other sources, or is trucked to the MWTF if deemed appropriate. Consequently, water quality at these stations that exceeds RSEM EOP limits does not indicate non-compliance with CEMP requirements. It indicates only that water management may be required. The RSEM EOP discharge limits were derived to protect aquatic life. The stations within the construction site are in water storage or conveyance systems that are generally inaccessible to aquatic life and do not provide aquatic habitat. RSEM sediment pond discharge is assessed independently.

Analytical results of samples from other construction areas are compared against the applicable limits shown in the CEMP Rev. 4, Section 4.14 (Surface Water Quality Management), Table 3 (page 62). The information from this table is reproduced in Table 3-2 for reference.

Although not the primary focus of this report, analytical results from samples of non-construction contact surface water may be included in this report for comparative purposes and are screened against approved BC WQGs for the protection of aquatic life (BC ENV, 2021), in accordance with Section 5.2.1.7 of BC Hydro's ARD/ML Management Plan. Water quality guideline values that are calculated as a function of pH, temperature, and/or hardness are derived using the most conservative values per station for the week in which the laboratory results were obtained (minimum pH, hardness and maximum temperature). A unique TSS limit is calculated per day and is derived from the measured background TSS concentration in the Peace River for that given day. Analytical results are compared to the calculated TSS limit for the day the analytical sample is collected.

Table 3-2:
Limits for Construction Areas
Not Specified in Environmental Requirements

Parameter	Maximum Allowable
Suspended solids	• Change from background[1] of 25 mg/L at any one time for a duration of 24 hours in all waters during clear flows or in clear waters • Change from background[1] of 5 mg/L at any one time for a duration of 30 days in all waters during clear flows or in clear waters • Change from background[1] of 10 mg/L at any time when background is 25-100 mg/L during high flows or in turbid waters • Change from background[1] of 10% when background is >100 mg/L at any time during high flows or in turbid waters
Turbidity	• Change from background[1] of 8 NTU at any one time for a duration of 24 hours in all waters during clear flows or in clear waters • Change from background[1] of 2 NTU at any one time for a duration of 30 days in all waters during clear flows or in clear waters • Change from background[1] of 5 NTU at any time when background is 8-50 NTU during high flows or in turbid waters • Change from background[1] of 10% when background is >50 NTU at any time during high flows or in turbid waters
Streambed Substrate Composition	• % fines not to exceed: 10% < 2 mm, 19% <3 mm, 28% < 6.35 mm at salmonid spawning sites • Geometric mean diameter not less than 12 mm (minimum 30-day intra-gravel dissolved oxygen of 6 mg/L) • Fredle number not less than 5 mm (minimum 30-day intra-gravel dissolved oxygen of 8 mg/L)
pH	• 6.5 – 9.0
Oil and Grease	• The surface water should be virtually free of petroleum, animal or vegetable oils

[1]. Background is the measured concentration for specified parameters in the Peace River

3.2.2 Left Bank

Water quality monitoring was conducted throughout the Left Bank at EOP and upgradient station locations. The 2021 monitoring stations are listed in Table 3-3 and Table 3-4, and an overview of water quality and management in each catchment area for the Left Bank are presented in the sections below and in Section 4.3.2. The monitoring stations are shown in Figure 3-1. Sampling within the main catchment areas was conducted as follows:

- Left Bank Excavation and RSEM Area L5 – analytical samples and *in situ* field measurements were obtained from the LBEX-B0 sump, LBEX-B1 sump, and LBEX-PAG-SUMP, and from the RSEM Area L5 Phase 2 East and West sediment control ponds from within the pond and at EOP. Upstream and downstream samples were also collected from Garbage Creek which is directed through culverts and ditches to bypass construction in RSEM Area L5.
- RSEM Area L6 – analytical samples and *in situ* field measurements were obtained from the RSEM Area L6 sediment control pond from within the pond and EOP.

Table 3-3:
Water Quality Monitoring Stations in 2021 (Left Bank)

Station ID	Easting	Northing	Description
LEFT BANK EXCAVATION AND RSEM AREA L5			
RSEM AREA L5 SUBCATCHMENT - LBEX			
LBEX-PAG-SUMP	629275	6230596	The sump collects contact runoff from the PAG exposed slopes along the LBEX haul road and road runoff. Which passively flows through the discharge culvert at high level into the ditch line that connects to RSEM L5-P2 EP.
LBEX-B1	629569	6230412	LBEX Bench 1 Sump
LBEX-B0	629774	6230226	LBEX Bench 0 Sump
RSEM AREA L5 SUBCATCHMENT – RSEM AREA L5 DEPOSITION AREA			
RSEM-L5E-P2-SP	628824	6230878	RSEM L5 East Phase 2 sediment control pond, in pond
RSEM-L5E-P2-EOP	628787	6230863	RSEM L5 East Phase 2 sediment control pond, end of pipe
RSEM-L5W-P2-SP	628811	6230896	RSEM L5 West Phase 2 sediment control pond, in pond
RSEM-L5W-P2-EOP	628785	6230864	RSEM L5 West Phase 2 sediment control pond, end of pipe
GARBAGE CREEK DIVERSION			
GC-DEBRIS-US	629249	6230994	Garbage Creek 30 m upstream of diversion inlet sump
LBGC-OUT	629209	6230328	Garbage Creek diversion culvert outlet
RSEM AREA L6			
RSEM-L6-SP	630347	6229704	RSEM L6 sediment control pond, in pond
RSEM-L6-EOP	630339	6229662	RSEM L6 sediment control pond, end of pipe

Table 3-4:
Summary of Water Quality Monitoring (Left Bank) – 2021

Station ID[1]	***In situ* Sonde Continuous Measurements[2] (Y / N)**	***In situ* Field Measurements**		**Analytical (Lab) Samples**	
		Sample Count[3]	Intended Frequency[4] (D / W / M / P)	Sample Count	Intended Frequency[4] (D / W / M / P)
LEFT BANK EXCAVATION AND RSEM AREA L5					
RSEM AREA L5 SUBCATCHMENT - LBEX					
LBEX-PAG-SUMP	N	7	P	2	P
LBEX-B1	N	71	W	10	M
LBEX-B0	N	53	P	6	P
RSEM AREA L5 SUBCATCHMENT – RSEM AREA L5 DEPOSITION AREA					
RSEM-L5E-P2-SP	Y[5]	122	P	55	P
RSEM-L5E-P2-EOP	N	45	D	42	D
RSEM-L5W-P2-SP	Y[5]	136	P	57	P
RSEM-L5W-P2-EOP	N	13	D	13	D
GARBAGE CREEK DIVERSION					
GC-DEBRIS-US	N	26	M	24	M
LBGC-OUT	N	26	W	24	W
RSEM AREA L6					
RSEM-L6-SP	Y[5]	62	P	7	P
RSEM-L6-EOP	N	1	D	1	D

[1] -SP = sediment control pond, in pond location;-EOP = sediment control pond, end of pipe location.
[2] Y = Yes; N = No.
[3] Field duplicates are not included in the table.
[4] Intended monitoring frequency when flow or water level is adequate to obtain *in situ* measurement or surface water sample; D = Daily, W = Weekly, M = Monthly, P = Periodic (as needed). Measurements and samples are collected at the intended frequency if there is sufficient water at the time of monitoring. Intended frequencies are aligned with guidance in the Acid Rock Drainage and Metal Leachate Management Plan (BC Hydro, 2016a).
[5] Sonde was deployed when the pond was discharging.
Duplicates not included in table



LEGEND

- Monitoring Location

Note: Site C aerial imagery collected October 2020-September 2021

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:10,000

0 200 400
Meters

DATE SAVED:	Jan 25, 2022
DRAWN BY:	AL
REVIEWED:	NM
VERSION:	1

CLIENT:

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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

Left Bank Water Quality Sampling Locations

PROJECT #: A416-1 *FIGURE:* 3-1

P:\@Drafting\SiteC\Drafting Figures\MXD\2021_AnnualReport\Fig 3_1_LB WQ.mxd

3.2.2.1 LBEX Sumps

The LBEX sumps are developed along the LBEX benches to collect surface runoff. The upper benches drain to LBEX-B1 sump through the Left Bank Drainage Channel, whereas the lower LBEX-B0 sump collects possible ARD influenced runoff from the PAG bedrock exposed in the lower benches of the LBEX. The LBEX-PAG-SUMP collects contact runoff and seepage from the PAG exposure above the LBEX haul road and passively flows through the discharge culvert at high level into the ditch line that ties to RSEM L5 Phase 2 East sediment control pond.

In 2021, monitoring records indicate that water periodically collected in the LBEX-B1 sump and was dewatered to the RSEM L5 Phase 2 East sediment control pond. On occasion, the LBEX-B1 sump was dewatered to the RSEM R6 East sediment control pond or used for drilling in the Left Bank Dam Core as needed. Water accumulations in the LBEX-B0 sump were periodically transferred to the MWTF for treatment.

Over the course of 2021, six analytical samples were collected at LBEX-B0, ten analytical samples were collected at LBEX-B1, and two analytical samples were collected from LBEX-PAG-SUMP (Table 3-5). Field measurements were collected at LBEX-B0 and LBEX-B1 on approximately a weekly basis. Seven field measurements were collected from LBEX-PAG-SUMP from early August to early October 2021.

The LBEX-B0 sump water quality was typically circum-neutral to slightly alkaline with a maximum sulphate concentration of 1,400 mg/L (Table 3-5). One field pH measurement of 3.5 was observed at LBEX-B0 in late August 2021 but again recorded circum-neutral pH measurements two days later. The LBEX-B1 samples were typically circum-neutral with moderate sulphate elevated up to 400 mg/L, and variable TSS concentrations as high as 252 mg/L. The LBEX-B1 maximum metal concentrations shown in Table 3-5 were observed in one sample collected in March 2021. The higher concentrations of Cd, Co, Cu, and Zn observed in samples collected at LBEX-B1 are attributed to elevated TSS. The LBEX-PAG-SUMP water quality was highly variable with field pH ranging from 4.8 to 8.3. In the two analytical samples collected, sulphate was elevated and ranged from 1,270 to 1,480 mg/L with TSS ranging from 27 to 191 mg/L. Metal concentrations at LBEX-PAG-SUMP are also highly variable with concentrations of Cd, Co, Cu, and Zn largely present in dissolved form.

Table 3-5:
LBEX Lower Benches 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		-	-	µS/cm	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBEX-B0 (n=6 lab, 53 field)	Max	8.13	8.4	2,780	4,950	33.3	1,400	0.00131	0.0227	0.00716	0.159
	Min	7.31	3.5	2,520	2,020	6.5	1,120	0.00015	0.0029	<0.001	0.016
	Median	7.96	7.8	2,675	2,780	13.2	1,310	0.00096	0.0137	0.00396	0.106
LBEX-B1 (n=10 lab, 71 field)	Max	8.28	8.6	1,700	2,940	252	400	0.000356	0.00304	0.0131	0.0292
	Min	7.77	7.6	651	618	3.3	169	<0.00001	<0.0002	0.00126	<0.005
	Median	8.12	8.1	1,310	1,617	14.7	370	0.000033	0.00037	0.00213	0.0055
LBEX-PAG-SUMP (n=2 lab, 7 field)	Max	7.95	8.3	2,710	4,500	191	1,480	0.0216	0.335	0.145	2.5
	Min	4.18	4.8	2,160	2,360	27	1,270	0.00404	0.0839	0.00345	0.287
	Median	6.07	5.4	2,435	3,210	109	1,375	0.0128	0.209	0.0742	1.4

Notes:
TSS = Total suspended solids.

3.2.2.2 RSEM Area L5 Sediment Control Ponds

The RSEM Area L5 Phase 2 East and West sediment control ponds are divided by a berm which isolates the two ponds from each other. The berm was designed to allow the cells to merge in a large (greater than 1 in 10 year 24-hour) storm event. The East and West ponds discharge through separate culverts onto a shared rip rap protected outfall, which descends the bank to the Peace River. Two stations have been established in each pond, one station within the pond itself (the SP station), and another for sampling discharge from the end-of-pipe (the EOP station). The EOP station is sampled when the pond is discharging at the time of monitoring. The RSEM Area L5 Phase 2 East and West sediment control ponds collect runoff within the RSEM Area L5 Phase 2 catchment as well as water transferred from the LBEX-B1 sump.

During their operation in 2021, the RSEM Area L5 Phase 2 East and West sediment control ponds collected surface runoff from within the RSEM Area L5 Phase 2 catchment, as well as water transferred from the LBEX-B1 sump. Water management by site personnel included the transfer of water between RSEM Area L5 Phase 2 East and West ponds to minimize the number of final discharge points from RSEM Area L5. Peace River ice excavated from and during the Isolation Zone dewatering was transferred to the RSEM Area L5 Phase 2 West pond catchment from late January through February 2021 for temporary storage until melted by warmer temperatures. Water from the RSEM Area L5 Phase 2 West pond was periodically trucked to the MWTF in Q2 2021. The RSEM Area L5 Phase 2 East pond periodically received water from the LBEX-B1 sump throughout 2021.

The RSEM Area L5 Phase 2 East sediment control pond began discharging in late June 2021, as the site thawed and water levels in the pond rose. Discharge continued intermittently until late September 2021. Discharge from the RSEM Area L5 Phase 2 West sediment control pond was limited to August 25th through September 6th, 2021. Water levels in RSEM Area L5 Phase 2 East and West ponds were low and/or frozen for the rest of the year and did not discharge.

Analytical water samples were collected from the RSEM Area L5 Phase 2 East and West sediment control ponds at EOP on a daily basis when discharging; otherwise in-pond samples were periodically collected. *In situ* field measurements were collected in parallel with analytical samples, with few exceptions.

The 2021 analytical data and field pH measurements for RSEM Area L5 Phase 2 East and West sediment control ponds are summarized in Table 3-6 and plotted in Figure 3-2 through Figure 3-11. The monitoring data indicate pond waters were typically circum-

neutral to alkaline. Carbon dioxide sparging was occasionally applied near the East and West pond discharge pipe intake to reduce pH at EOP. Sulphate occurred at moderate levels in both the RSEM L5 Phase 2 East pond (up to 1,240 mg/L) and the RSEM L5 Phase 2 West pond (up to 1,360 mg/L). Maximum sulphate concentrations at respective EOP stations were comparable, at 1,340 mg/L at the East pond EOP and 1,400 mg/L at the West pond EOP. Concentrations of TSS and metals in analytical samples from the RSEM Area Phase 2 L5 East and West sediment control ponds were generally low. Field and analytical measurements of the RSEM Area L5 Phase 2 East and West pond discharges met the RSEM EOP limits.

Table 3-6:
RSEM L5 Phase 2 East and West Pond 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		-	6.0-9.0	-	-	WQG	-	0.00029	0.55	0.011	0.033
RSEM-L5E-P2-SP (n=55 lab, 122 field)	Max	8.46	10.4	2,940	2,940	8.1	1,240	0.00015	0.00347	0.00344	<0.025
	Min	7.51	7.4	324	640	<1	31	<0.00001	<0.0002	0.00148	<0.005
	Median	8.28	8.4	2,180	1,376	2.4	948	0.000018	0.00020	0.00211	0.005
RSEM-L5E-P2-EOP (n=42 lab, 43 field)	Max	8.49	8.8	3,070	2,960	16.8	1,340	0.000094	0.00292	0.00372	<0.025[2]
	Min	7.67	7.9	1,480	1,453	<1	573	<0.00001	<0.0002	0.00130	<0.005
	Median	8.35	8.6	2,420	2,390	1.7	999	0.000026	0.00042	0.00209	0.005
RSEM-L5W-P2-SP (n=57 lab, 136 field)	Max	8.51	8.9	3,210	3,780	11.6	1,360	<0.00005	<0.001	<0.0025	<0.025
	Min	8.22	7.7	1,630	795	<1	629	<0.00001	<0.0002	0.00120	<0.005
	Median	8.41	8.5	2,770	2,845	2.3	1,080	0.000020	0.00031	0.00170	0.005
RSEM-L5W-P2-EOP (n=13 lab, 13 field)	Max	8.42	8.6	3,190	3,000	1.9	1,400	0.00017	<0.001	<0.0025	<0.025
	Min	7.85	8.0	3,040	2,900	<1	1,250	<0.00001	0.00023	0.00128	<0.005
	Median	8.28	8.4	3,120	2,960	1.0	1,280	0.00001	0.00032	0.00138	0.005

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharge (-EOP samples).
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Water quality for stations RSEM-L5E-P2-EOP and RSEM-L5W-P2-EOP is screened against RSEM EOP limits. ***Gold italics*** indicate exceedance of an RSEM EOP limit.
[2]Detection limit was elevated above EOP discharge limit, an actual exceedance is not reported.

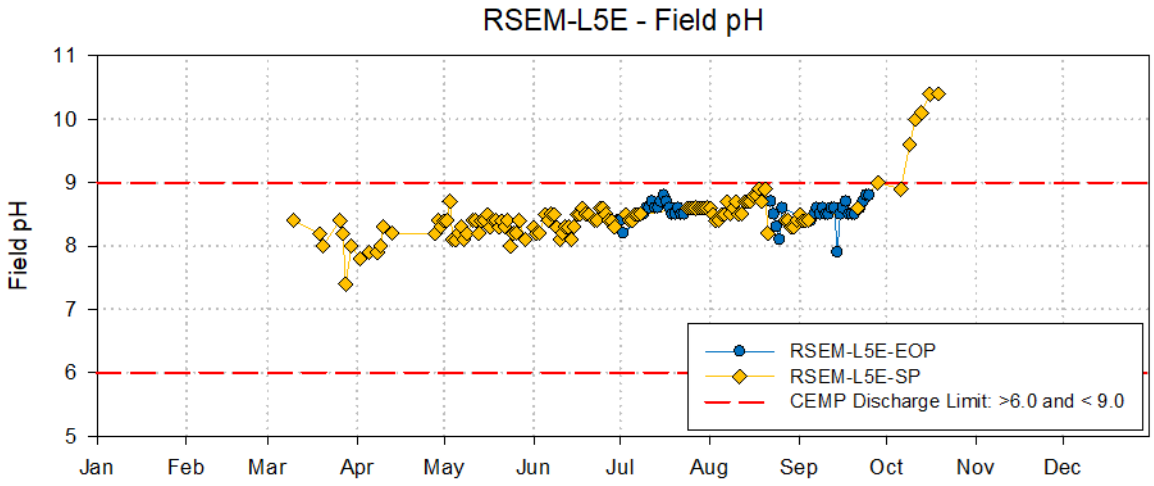


Figure 3-2: Time series profile for field pH in RSEM-L5 East compared to RSEM EOP Limits in 2021. EOP – End of Pipe; SP – Sediment Pond.

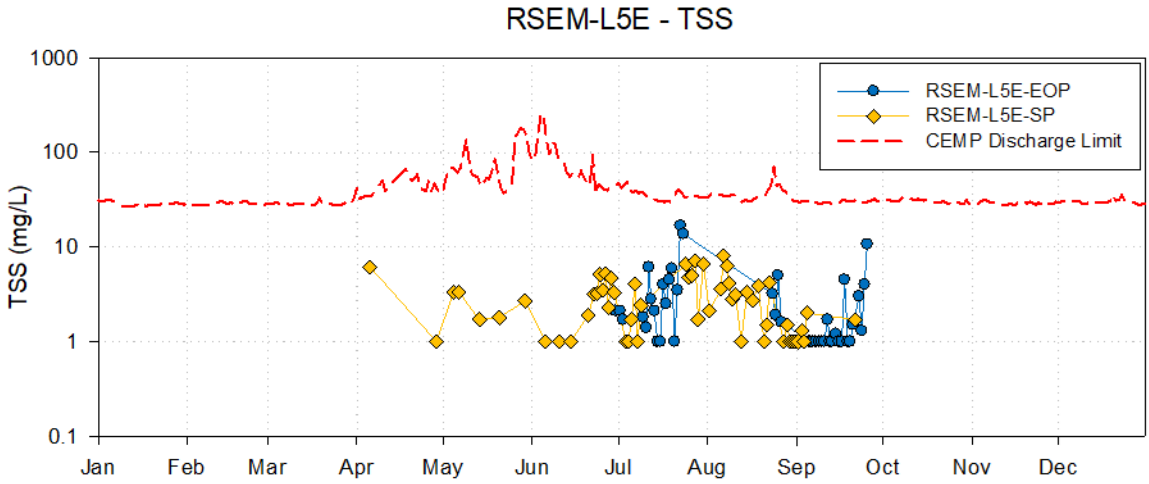


Figure 3-3: Time series profile for total suspended solids (TSS) in RSEM-L5 East compared to RSEM EOP Limits in 2021. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond.

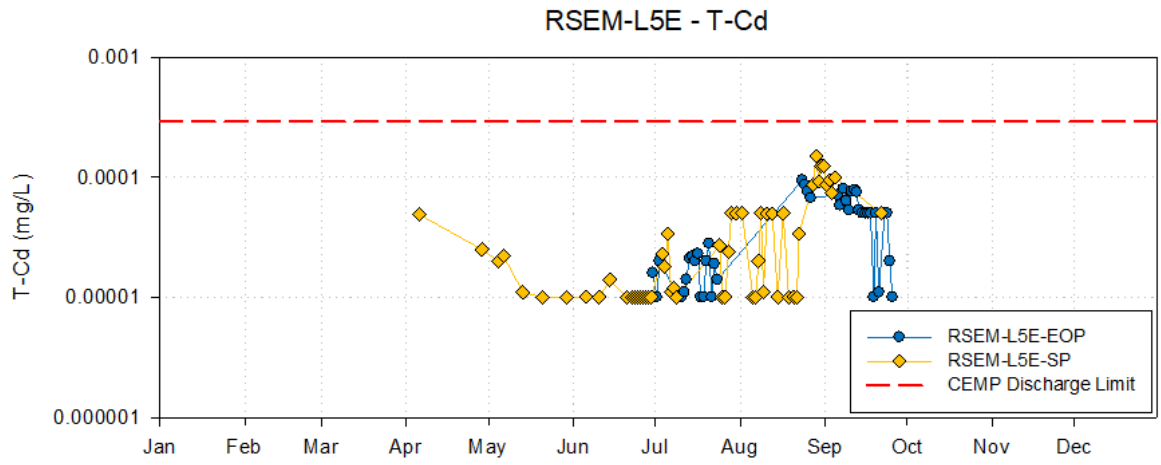


Figure 3-4: Concentrations of cadmium (Cd) for RSEM-L5 East compared to RSEM EOP Limits in 2021. T-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

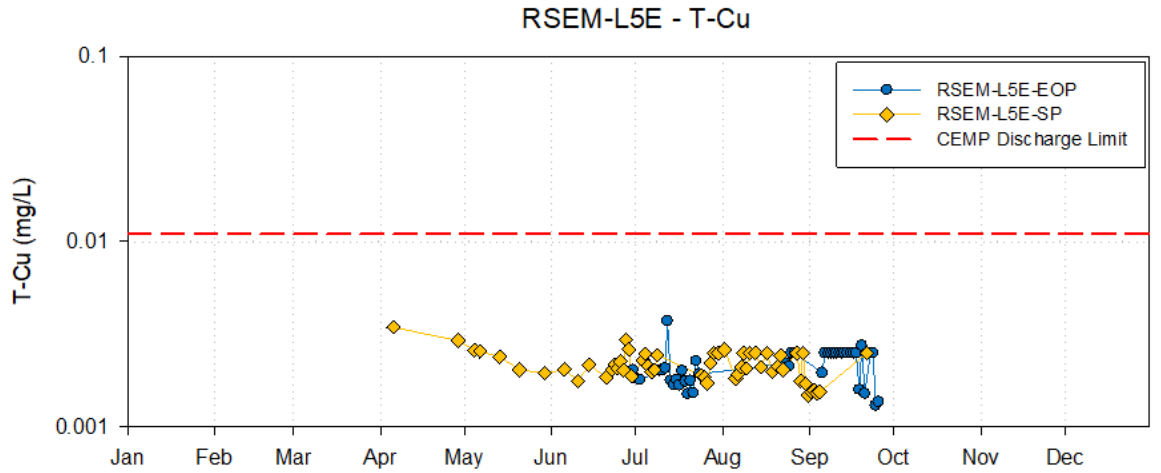


Figure 3-5: Concentrations of copper (Cu) for RSEM-L5 East compared to RSEM EOP Limits in 2021. T-Cu is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

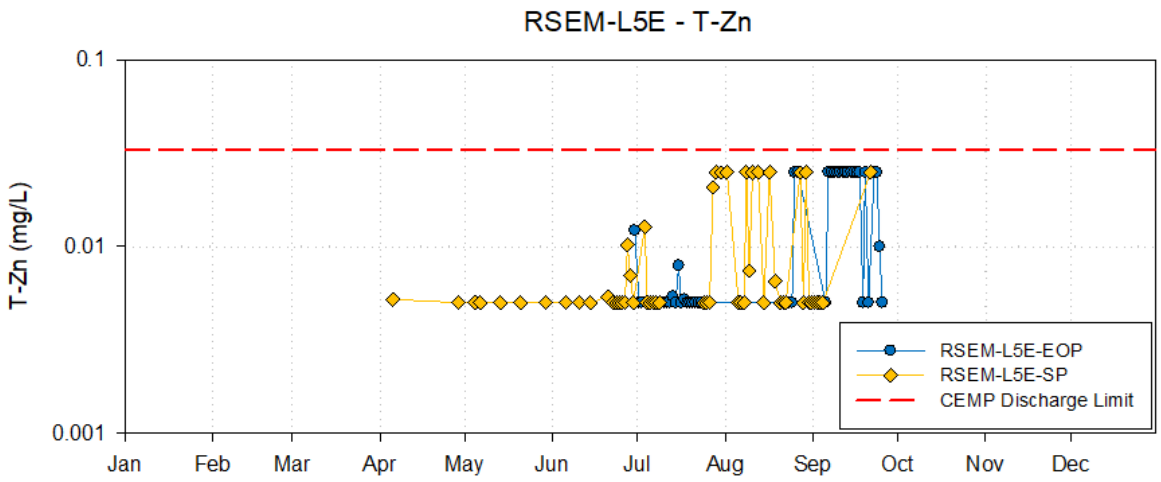


Figure 3-6: Concentrations of zinc (Zn) for RSEM-L5 East compared to RSEM EOP Limits in 2021. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

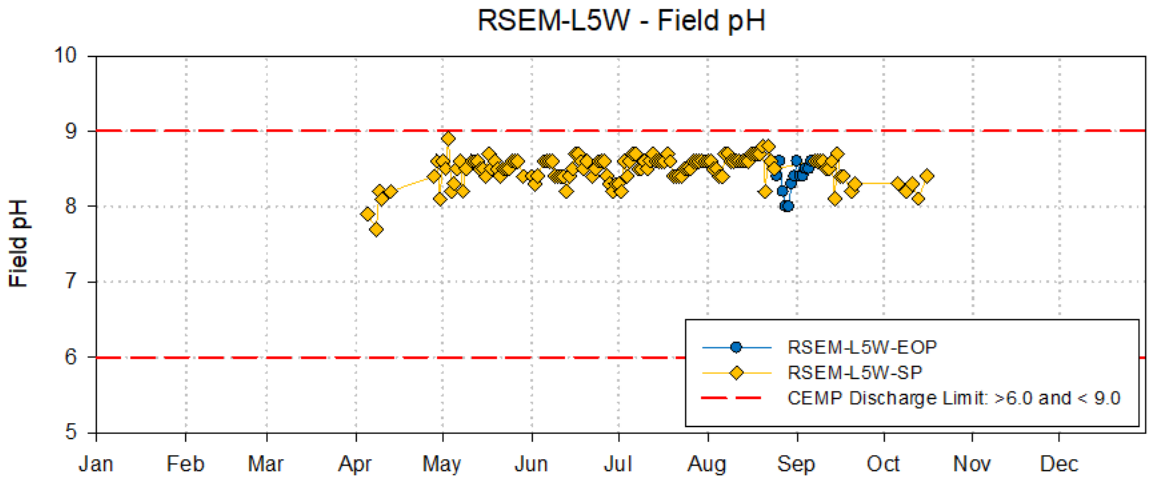


Figure 3-7: Time series profile for field pH in RSEM-L5 West compared to RSEM EOP Limits in 2021. EOP – End of Pipe; SP – Sediment Pond.

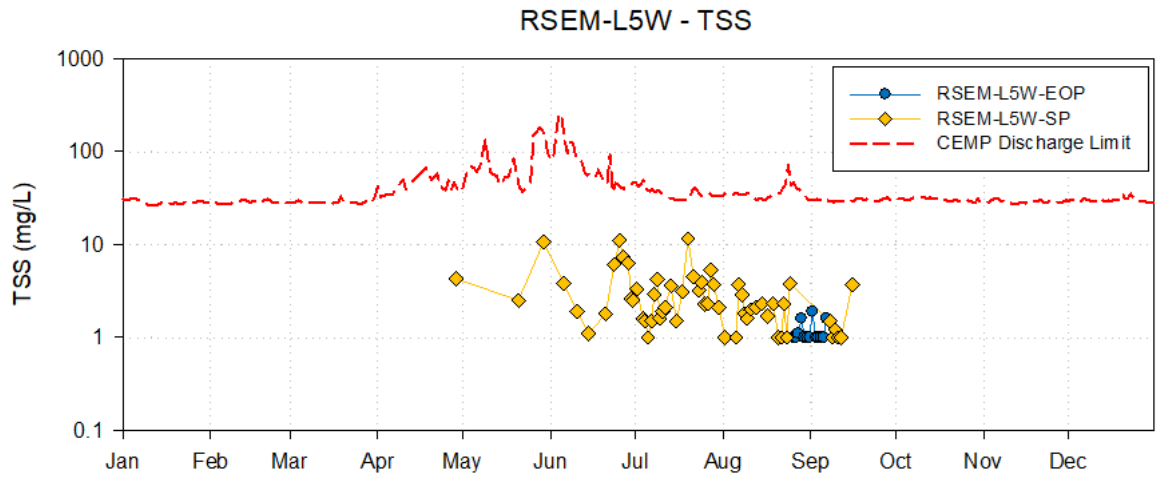


Figure 3-8: Time series profile for total suspended solids (TSS) in RSEM-L5 West compared to RSEM EOP Limits in 2021. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond.

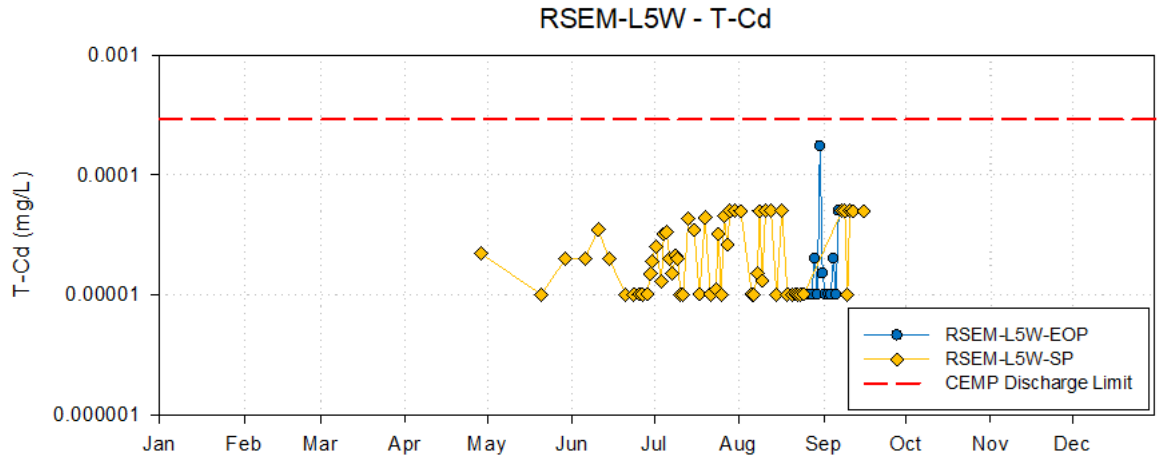


Figure 3-9: Concentrations of cadmium (Cd) for RSEM-L5 West compared to RSEM EOP Limits in 2021. T-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

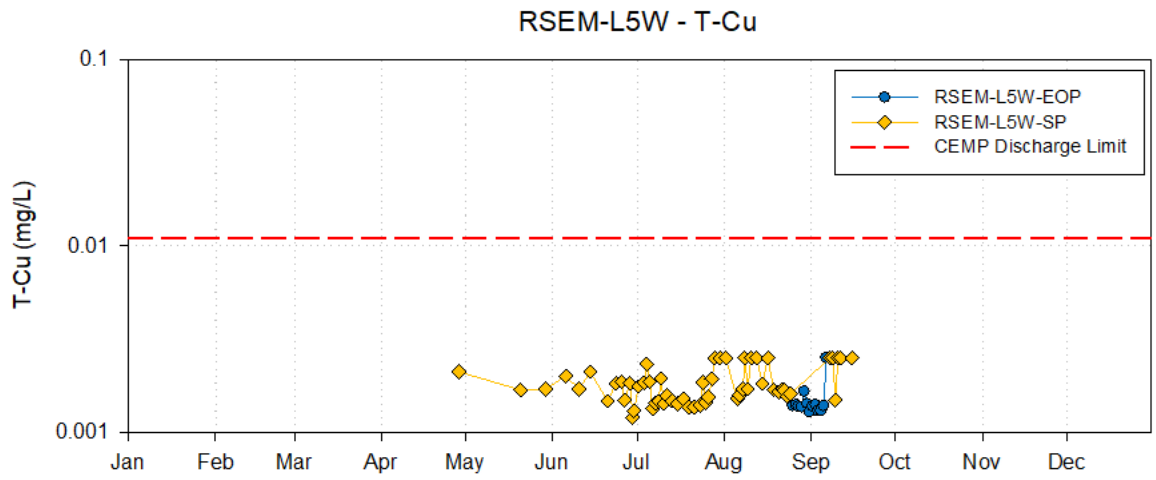


Figure 3-10: Concentrations of copper (Cu) for RSEM-L5 West compared to RSEM EOP Limits in 2021. T-Cu is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

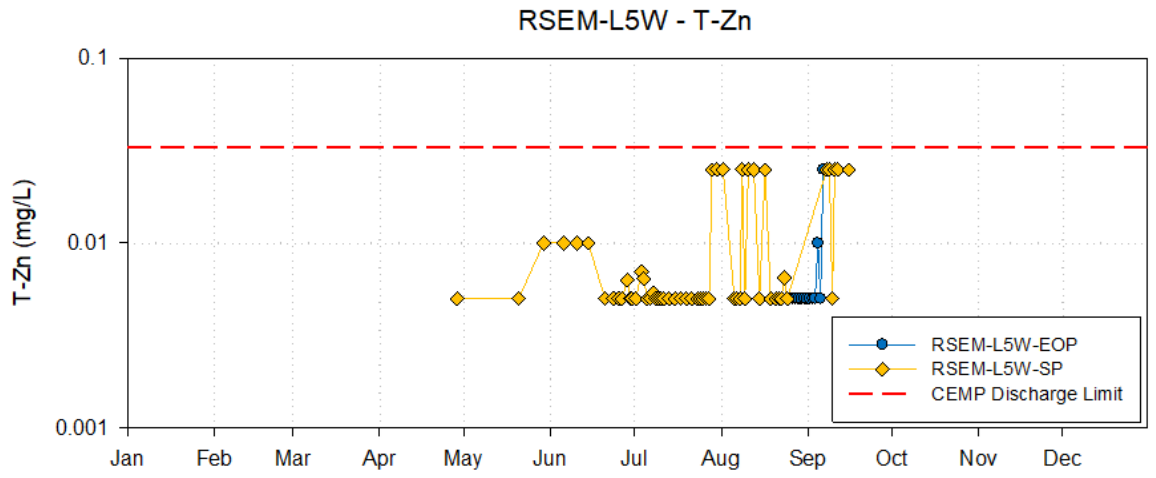


Figure 3-11: Concentrations of zinc (Zn) for RSEM-L5 West compared to RSEM EOP Limits in 2021. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

3.2.2.3 Garbage Creek Diversion

Garbage Creek originates upgradient of the construction site and is conveyed in ditches and via culverts through RSEM Area L5 to minimize any potential influence from construction activities on water quality. An ARD influence was noted in water from this catchment prior to construction activities and is attributed to exposed shale upstream of the construction site. There was substantial erosion upstream of the construction site in spring

2018. Since then, the creek is often turbid with elevated TSS upstream of the Left Bank construction area. For the purpose of evaluating water quality, Garbage Creek is considered non-construction contact surface water.

Monitoring records indicate that the creek was generally frozen during winter months in 2021, during which no samples were collected. During periods of flow (March through October), analytical samples for turbidity and TSS, and field measurements, were typically collected weekly from the final culvert outlet (LBGC-OUT) during periods of high flow (March to August) and monthly thereafter (September to October). Concurrent samples at GC-DEBRIS-US, upstream of the construction site, were also collected on a weekly to monthly basis, depending on flow conditions.

Garbage Creek was generally monitored during snowmelt and after rainfall and the water quality was overall circum-neutral to alkaline with elevated turbidity and TSS at both stations in most of the months sampled (Table 3-7). The maximum TSS at both stations was observed in late April during snowmelt. Concurrent field pH, conductivity and TSS measurements were comparable at the upstream and downstream locations, confirming the primary influences on Garbage Creek water quality are upstream of the project area.

Table 3-7:
Garbage Creek Diversion 2021 Annual Water Quality Summary

Parameter		Field pH	Field Conductivity	Turbidity	TSS
Units		**-**	**µS/cm**	**NTU**	**mg/L**
LBGC-Debris-US (n=24 lab TSS/Turbidity, 26 field)	Max	8.7	2,340	>40,000	34,700
	Min	7.2	359	1.3	<0.98
	Median	8.3	1,385	110	1,320
LBGC-OUT (n=24 lab TSS/Turbidity, 26 field)	Max	8.8	2,280	>4,000	18,300
	Min	7.9	226	0.8	<1
	Median	8.3	1,376	56	410

Notes:
TSS = Total suspended solids.

3.2.2.4 RSEM Area L6 Sediment Control Pond

The RSEM L6 sediment control pond receives runoff water from RSEM Area L6 and discharges through a culvert onto a rip rap protected outfall, which descends the bank to the Peace River. Water quality is monitored at end-of-pipe (the EOP station) when discharging, and otherwise at the in-pond station (the SP station).

The RSEM L6 sediment control pond did not discharge in 2021 except on April 29th to April 30th and November 9th to 10th , when water was pumped from the pond to the Peace

River. Analytical water samples and field measurements were periodically collected from the pond in late March through November 2021. One analytical sample and corresponding field measurement were collected from the EOP station on April 30th and the pond station (SP) on November 9th, when the pond was discharging.

The pH in all analytical samples and field measurements was circumneutral to slightly alkaline, with low TSS (up to 78.5 mg/L) and moderate sulphate levels (up to 485 mg/L) (Table 3-8; Figure 3-12 to Figure 3-16). The water quality sample collected from the RSEM L6 sediment control pond EOP station met the RSEM EOP limits when the pond discharged. On April 30th, 2021, TSS at the EOP station was above the derived RSEM EOP limit, however, the pond discharged for less than 24 hours. Therefore, the measured TSS is not considered an exceedance of the EOP limit, as outlined in the screening approach described in Section 3.2.1 above. The observed low concentrations of Cd, Co, Cu and Zn are mostly attributed to the dissolved components of these metals.

Table 3-8:
RSEM L6 Pond 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		-	6.0-9.0	-	-	WQG	-	0.00029	0.55	0.011	0.033
RSEM-L6-SP (n=7 lab, 62 field)	Max	7.95	9.8	1,270	2,930	31.7	485	0.000078	0.00101	0.00233	0.0095
	Min	6.70	7.5	623	456	<1	146	0.000020	<0.0002	0.00105	<0.005
	Median	6.99	8.3	1,130	1,197	2.2	392	0.000031	0.0002	0.00158	0.005
RSEM-L6-EOP (n=1 lab, 1 field)	Value	7.95	8.4	767	799	78.5	248	0.000152	0.00206	0.00380	0.0196

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharge (-EOP samples).
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Water quality for station RSEM-L6-EOP is screened against RSEM EOP limits. ***Gold italics*** indicate exceedance of an RSEM EOP limit.

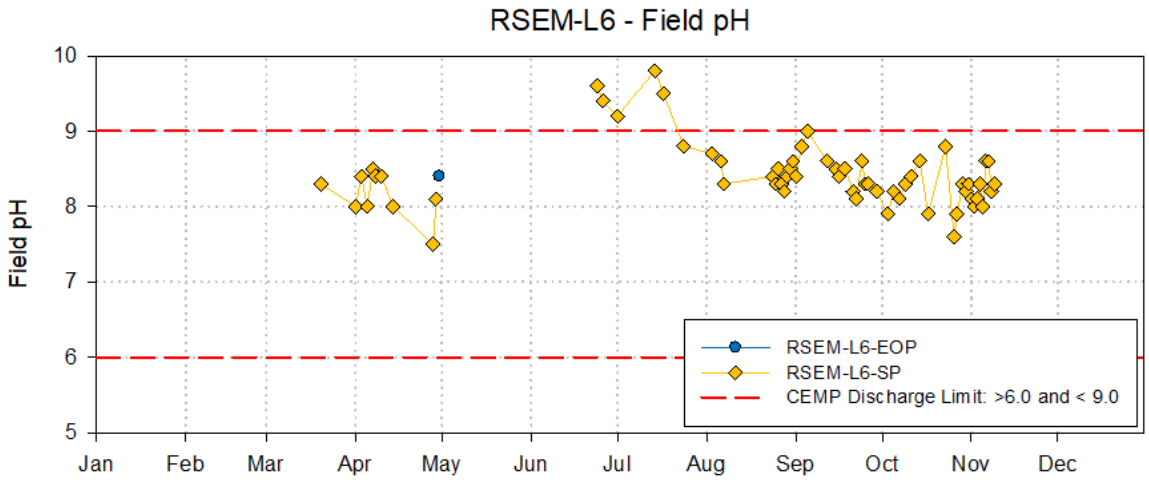


Figure 3-12: Time series profile for field pH in RSEM-L6 compared to RSEM EOP Limits in 2021. EOP – End of Pipe; SP – Sediment Pond.

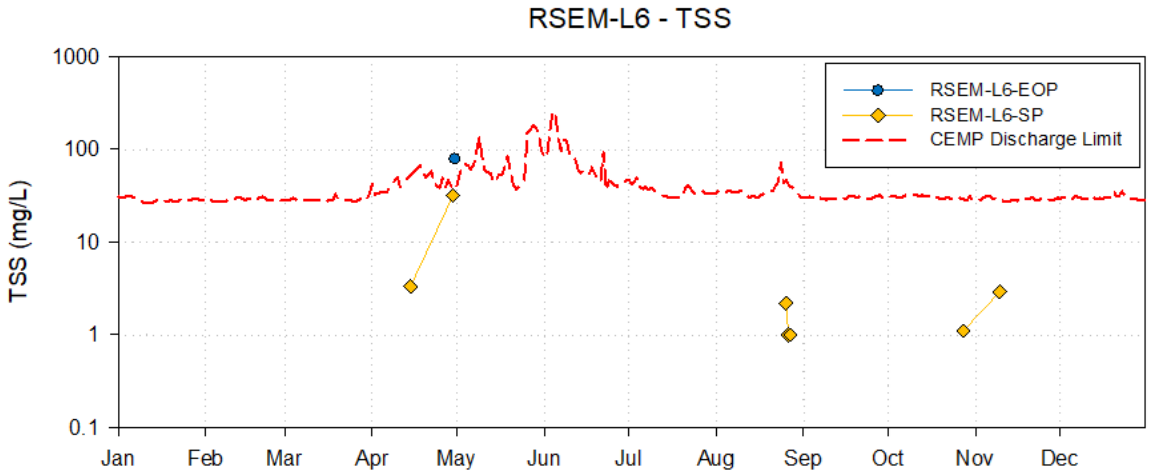


Figure 3-13: Time series profile for total suspended solids (TSS) in RSEM-L6 compared to RSEM EOP Limits in 2021. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond.

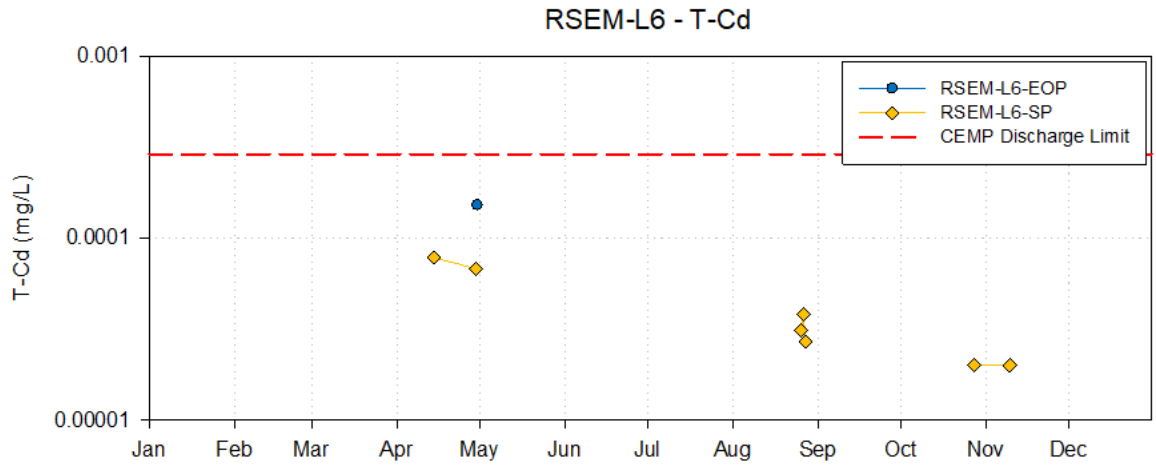


Figure 3-14: Concentrations of cadmium (Cd) for RSEM-L6 compared to RSEM EOP Limits in 2021. T-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

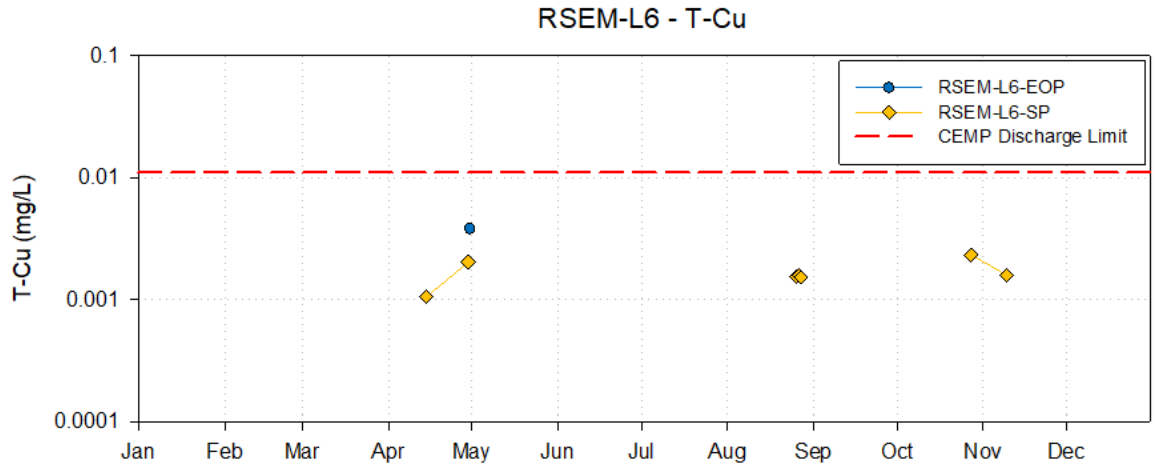


Figure 3-15: Concentrations of copper (Cu) for RSEM-L6 compared to RSEM EOP Limits in 2021. T-Cu is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

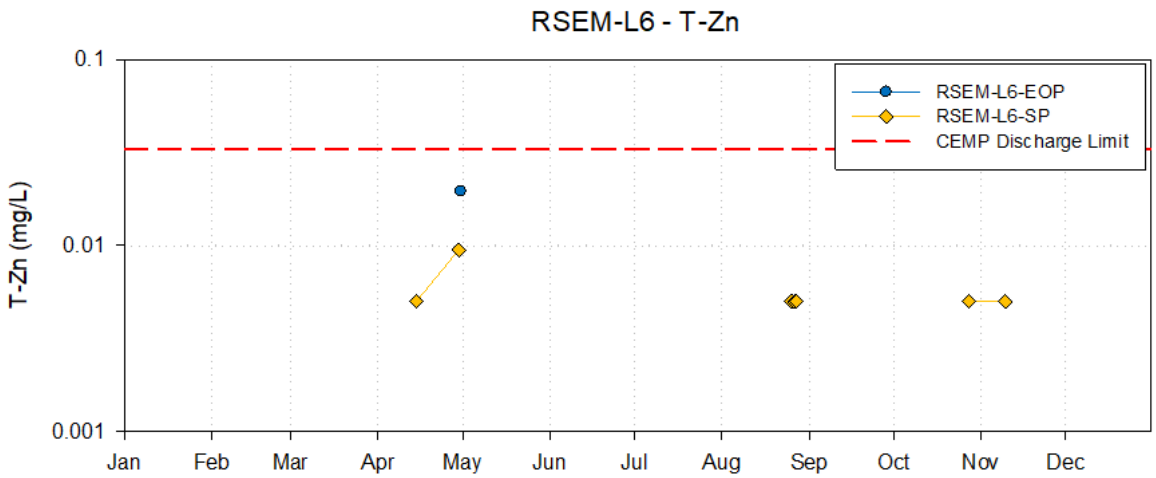


Figure 3-16: Concentrations of zinc (Zn) for RSEM-L6 compared to RSEM EOP Limits in 2021. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

3.2.3 Earthfill Dam

Initiation of the Earthfill Dam construction across the Peace River mainstem in 2020 redirected the river through the diversion tunnels and isolated a pond of water in the zone between the Left and Right Bank cofferdams. Dewatering was undertaken to maintain dry conditions between the coffer dams and allow for construction activities including the excavation of the Core Trench, placement of the compacted Dam Core and adjacent filter zones, and general placement of other components of the Earthfill Dam. These included, most notably the permanent placement of PAG fill in Zone 8, which is located on the upstream side of the Dam Core, and temporary placement of PAG fill as a thermal barrier over the Core Trench in November 2021.

Water management within the Earthfill Dam evolved over the course of 2021. Initially, during the first half of 2021 Q1 water was removed from the isolated area (Isolation Zone) by excavating ice, and by pumping residual river water to the Peace River. The excavated ice was placed in RSEM Areas R5A and L5. After the area was dewatered and excavation of the Earthfill Dam Core Trench proceeded, river water seepage into the core trench excavation that may have contacted PAG material was pumped to the RSEM R6 West sediment control pond for sediment removal, and non-PAG contact seepage water from the isolation zone and other areas of the Earthfill Dam continued to be pumped to Peace River, as needed. PAG and shotcrete contact water from the core trench is directed to the MWTF pre-treatment pond. Later in the year during Q4 2021, all water from the Earthfill Dam was directed to the Peace River through the Earthfill Dam-DS-Out location.

The 2021 Earthfill Dam monitoring stations are listed in Table 3-9 and Table 3-10, and an overview of water quality monitoring data are presented in the sections below. The monitoring station locations are shown in Figure 3-17.

Table 3-9:
Water Quality Monitoring Stations in 2021 (Earthfill Dam)

Station ID	Easting	Northing	Description
EARTHFILL DAM			
LBCD-SUMP-BT	629437	6229973	Sump receiving water from the Left Bank Dam Core Trench excavation
RB-CORE-TRENCH-SUMP	629347	6229490	Sump receiving water from the Right Bank Dam Core Trench excavation
EARTHFILL-DAM-W-SUMP	629417	6229814	Sump on the western side of the Earthfill Dam Core Trench that collects river water seepage
EARTHFILL-DAM-E-SUMP	629451	6229673	Sump on the eastern side of the Earthfill Dam Core Trench that collects river water seepage
DC-DISCHARGE-R6-WP	630068	6229164	End of pipe location of the Earthfill Dam Core Trench waters pumped to R6 West sediment control pond
EARTHFILL DAM-E-BT	629491	6229657	Baker tank east of dam core that receives groundwater seepage pumped from sumps and standpipes east and west of the Dam Core
PR-ISOLATION-ZONE	629578	6229500	Groundwater infiltration to the Peace River Isolation Zone downstream of the Dam Core that is dewatered from Thalweg sump
EARTHFILL DAM-DS-OUT	629624	6229495	Discharge point for the pipeline that receives water from EARTHFILL DAM-E-BT and PR-ISOLATION-ZONE.
PR-US-R5A	627926	6231158	Peace River upstream of discharges from the Earthfill Dam Core Trench and the Isolation Zone, adjacent to RSEM Area R5A
PR-US-R5B	629066	6229893	Peace River upstream of discharges from the Earthfill Dam Core Trench and the Isolation Zone, adjacent to RSEM Area R5B
R5A-MOB-US	628167	6230156	Peace River Upstream of discharges from the Earthfill Dam Core Trench and the Isolation Zone, upstream of discharge from east non-contact ditch at Moberly River
PR-IDZ	630479	6229283	Peace River downstream of discharges from the Earthfill Dam Core Trench and the Isolation Zone

Table 3-10:
Summary of Water Quality Monitoring in 2021 (Earthfill Dam)

Station ID[1]	*In situ* Continuous Measurements[1] (Y / N)	*In situ* Field Measurements		Analytical (Lab) Samples	
		Count[2]	Intended Frequency[3]	Count	Intended Frequency[4]
EARTHFILL DAM CORE DEWATERING AND DSICHARGES					
LBCD-SUMP-BT	N	75	W	4	P
RB-CORE-TRENCH-SUMP	N	1	P	0	P
EARTHFILL-DAM-W-SUMP	N	150	D	107	D/W
EARTHFILL-DAM-E-SUMP	N	42	W	10	P
DC-DISCHARGE-R6-WP	N	199	W	5	M
EARTHFILL DAM-E-BT	N	29	D	6	W
NON-PAG CONTACT WATER DISCHARGES AND PEACE RIVER					
PR-ISOLATION-ZONE	N	315	D	3	P
EARTHFILL DAM-DS-OUT	N	44	D	7	W
PR-US-R5A	N	36	W	19	W
PR-US-R5B	N	3	P	0	P
R5A-MOB-US	N	2	P	1	P
PR-IDZ	N	361	W	58	W

[1] Y = Yes; N = No.
[2] Field duplicates are not included in the table.
[3] Intended monitoring frequency when flow or water level is adequate to obtain *in situ* measurement or surface water sample; D = Daily (if discharging), W = Weekly (if level > 50%), M = Monthly, Q = Quarterly (if level < 50%), P = Periodic (if needed). Measurements and samples are collected at the intended frequency if there is sufficient water at the time of monitoring. Intended frequencies are aligned with guidance in the Acid Rock Drainage and Metal Leachate Management Plan (BC Hydro, 2016a).



LEGEND

- Monitoring Location

Note: Site C aerial imagery collected October 2020-September 2021

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:7,500

0 200 400 Meters

DATE SAVED:	Feb 03, 2022
DRAWN BY:	AL
REVIEWED:	NM
VERSION:	1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

RSEM Area R5B and RSEM Area R6 Water Quality Sampling Locations

PROJECT #: A416-1 *FIGURE:* 3-17

P:\@Drafting\SiteC\Drafting Figures\MXD\2021_AnnualReport\Fig 3_17_R5B_R6_WQ.mxd

3.2.3.1 Dam Core Dewatering and Discharges

The LBCD Sump (LBCD-Sump) collects water from the area of the dam footprint within the coffer dam on the left bank of the Peace River. Shotcrete contact water and PAG contact water from the Core Trench is directed to the LBCD-SUMP-BT baker tank and trucked to the MWTF Pre-Treatment Pond or the RSEM R6 ponds, as needed. Field measurements indicate LBCD-SUMP-BT waters were typically alkaline with field conductivity up to 6,750 µS/cm. The variation of PAG influence at this location is illustrated by sulphate concentrations varying from 43 mg/L to 2620 mg/L (Table 3-11)

The Earthfill Dam West and East Sumps collect river water that seeps through the cofferdams on the west and east sides of the core trench. As these sumps may on occasion also receive PAG contact water, the water was typically discharged through the RSEM Area R6 West Pond. However, EARTHFILL-DAM-W-SUMP discharge directly to the Peace River upstream of the cofferdam was initiated July 1 and continued until October 25, except July 21st to August 3rd and September 13th to 15th, when the sump was temporarily redirected back to RSEM R6 West sediment control pond.

Field measurements and analytical samples were collected daily from station EARTHFILL-DAM-W-SUMP when water was discharged to the river. At EARTHFILL-DAM-E-SUMP field measurements were collected daily for most of July and weekly thereafter while four analytical samples were collected in early July and six samples were collected in late September. Field measurements indicate the EARTHFILL-DAM-W-SUMP and EARTHFILL-DAM-E-SUMP samples were alkaline and had moderate field conductivity (up to 814 µS/cm) and low concentrations of sulphate (< 51 mg/L) except for one anonymously high sample on August 12 (Table 3-11). Analytical samples collected from EARTHFILL-DAM-W-SUMP reported values for D-Al that were elevated relative to Short-Term BC WQGs on four days in early July and T-Fe on July 3rd. The D-Al values for EARTHFILL-DAM-E-SUMP that exceeded BC WQG on July 11th and July 16th when sump water was being pumped to RSEM Area R6 West Pond. The elevated D-Al was ascertained to be the result of analytical error and a more detailed discussion of this occurrence is provided in Sections 3.2.5.6 and 4.5.3.

The station DC-DISCHARGE-R6-WP is the end of pipe location of the Earthfill Dam Sump waters that were pumped to the RSEM R6 West sediment control pond. The DC-DISCHARGE-R6-WP waters were slightly alkaline with only one slightly acidic field pH measurement in March. Conductivity was typically less than 800 µS/cm although readings elevated up to 18,600 µS/cm were recorded. The five analytical samples collected from this station indicate there were only limited signs of PAG influence as demonstrated by the maximum sulphate concentration of 105 mg/L. Although elevated metals were measured

on occasion, these samples had high turbidity and low sulphate (≤105 mg/L), suggesting that the elevated metals are not related to ARD.

In 2021 Q4 the EARTHFILL DAM-E-BT dewatering was combined with Isolation Zone dewatering and directed to the Peace River at the EARTHFILL DAM-DS-OUT location. The EARTHFILL DAM-E-BT receives water pumped from the gravel filter zone downstream of the Dam Core. Pumping is conducted to maintain the water level below approximately 409 masl within the filter zone. Standpipes installed in the upstream (west) gravel filters have low water levels (below the bottom of the standpipe, ~406 masl) and were not dewatered in 2021. Although it is possible that PAG contact water from the temporary thermal barrier may report to the downstream gravel filter zone in Q4 2021, water quality at this station is slightly alkaline, with a moderate conductivity and maximum sulphate concentration of 81 mg/L.

Table 3-11:
Dam Core Dewatering and Discharges 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	D-Al	T-Cd	T-Co	T-Cu	T-Fe	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Short-term BC WQG			6.5-9.0			WQG		0.1	-	0.11	-	1	0.0548
LBCD-SUMP-BT (n=4 lab, 75 field)	Max	8.57	10.0	6,960	6,750	164	2,620	0.0170	0.000151	0.0079	0.0079	6.48	0.031
	Min	7.56	7.7	338	290	<1	43	<0.003	<0.00001	<0.0002	<0.0005	<0.01	<0.005
	Median	8.02	8.2	944	1,271	23	269	0.0044	0.0000545	0.00126	0.00323	2.51	0.016
RB-CORE-TRENCH-SUMP (n= 0 lab, 1 field)	Value	-	8.6	-	4,640	-	-	-	-	-	-	-	-
EARTHFILL-DAM-W-SUMP (n=107 lab, 150 field)	Max	8.33	8.7	2,360	707	26	967	[1]0.231	0.000205	0.00042	0.00197	1.14	0.0554
	Min	7.19	7.5	237	232	<0.97	21	<0.003	<0.00001	<0.0002	<0.0005	<0.01	<0.005
	Median	8.00	8.2	382	403	1	46	0.0030	0.000010	0.00020	0.00050	0.010	0.0050
EARTHFILL-DAM-E-SUMP (n=10 lab, 42 field)	Max	8.23	8.5	376	814	9	51	0.113	0.000039	0.00042	0.00127	0.57	0.0142
	Min	7.70	7.7	277	288	<1	29	0.0035	<0.00001	<0.0002	<0.0005	0.055	<0.005
	Median	8.01	8.3	318	380	5	39	0.0133	0.000015	0.00020	0.00062	0.11	0.0050
DC-DISCHARGE-R6-WP (n=5 lab, 199 field)	Max	8.39	8.9	588	18,600	3,990	105	0.0330	0.00116	0.0229	0.0795	45.8	0.213
	Min	8.11	5.3	409	308	245	59	0.0041	0.000138	0.00483	0.0112	9.37	0.0307
	Median	8.31	8.2	415	451	1,420	64	0.0175	0.00048	0.0214	0.0436	29.6	0.162
EARTHFILL-DAM-E-BT (n=6 lab, 29 field)	Max	8.20	8.4	486	530	3	81	0.0076	0.000013	<0.0002	<0.0005	0.092	<0.005
	Min	7.73	7.7	300	271	<1	34	<0.003	<0.00001	<0.0002	<0.0005	<0.01	<0.005
	Median	8.04	8.1	419	403	1	62	0.0058	0.000010	0.00020	0.00050	0.020	0.0050

Notes: TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature, or chloride levels) are based on the minimum data statistic measured at the stations in 2021. Temperature of 10°C assumed.
Water quality for station EARTFILL-DAM-W-SUMP is screened against short-term WQGs to guide water management. ***Red italics*** indicate the result is elevated relative to the BC WQGs.
[1]Elevated Al concentrations reported as exceedance attributed to laboratory error.

3.2.3.2 Non-PAG Contact Water Discharges, Peace River and Moberly River

Following the ice removal and dewatering of the Isolation Zone in 2020 Q1, the zone was backfilled and water levels were maintained by pumping non-PAG contact water from the PR-Isolation-Zone sump / standpipe directly downstream to the river. Field measurements were collected from monitoring station PR-Isolation-Zone almost daily while analytical samples for TSS and turbidity were collected weekly until November when the Isolation Zone water was redirected through Earthfill Dam-DS-Out. Isolation zone waters were circum-neutral to slightly alkaline with relatively low conductivity and TSS (Table 3-12).

In November the Isolation Zone dewatering was combined with Earthfill Dam-E-BT dewatering and directed to the Peace River through the Earthfill Dam-DS-Out station. Daily field measurements and weekly analytical samples were collected at Earthfill Dam-DS-Out to monitor for PAG influence in the combined discharge at this station. Discharge water quality had moderate conductivity that was approximately 2 times greater than observed from the Isolation Zone with alkaline pH due to the influence of the Earthfill Dam-E-BT water. Analytical samples confirmed that all parameters remain below BC WQGs in the water discharged to the Peace River from this station.

Upstream stations on the Peace River (PR-US-R5A) and Moberly River (R5A-MOB-US) were circum-neutral to slightly alkaline with low conductivity less than 515 µS/cm (Table 3-12). Analytical samples collected from PR-US-R5A indicate that sulphate concentrations were less than 87 mg/L and TSS remained low (< 35 mg/L). Samples from PR-US-R5A exceeded BC WQGs for D-Al on July 21st, July 27th, and August 25th. One analytical sample collected on the Moberly River (R5A-MOB-US) upstream of the project on July 27th was elevated relative to BC WQGs for D-Al, T-Cr, and T-Fe.

Field measurements were collected from the downstream monitoring station PR-IDZ almost daily while analytical samples for TSS and turbidity were collected weekly throughout the year and weekly analytical sampling for metals was initiated June 30. Two samples collected on July 7th and July 21st were elevated relative to BC WQGs for D-Al. Samples collected at PR-IDZ on June 30th and on August 25th slightly exceeded the BC Long-Term WQG for T-Cr and T-Zn, respectively.

The elevated Al concentrations noted for several of the Earthfill Dam and Peace River monitoring stations discussed above are attributed to analytical error, which is discussed further in Section 3.2.5.6.

Table 3-12:
Isolation Zone and River 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Ag	D-Al	T-Be	T-Cr	D-Cu[a]	T-Fe	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Short-term BC WQG		-	6.5-9.0	-	-	WQG	-	0.0001	0.1	-	-	-	1	0.0347
Long-term BC WQG		-	-	-	-		309	0.00005	0.05	0.00013	0.001 (CrVI), 0.0089 (CrIII)	a	-	0.0092
PR-ISOLATION-ZONE (n=3 lab, 45 lab TSS/Turbidity, 315 field)	Max	8.03	8.7	358	507	42.9	55	<0.00002	0.0036	<0.0001	<0.001	<0.0005	0.318	<0.005
	Min	7.94	7.0	231	186	<1	21	<0.00002	<0.003	<0.0001	<0.001	<0.0005	0.090	<0.005
	Median	7.99	8.2	244	262	2	25	0.00002	0.0032	0.00010	0.0010	0.00050	0.094	0.0050
EARTHFILL DAM-DS-OUT (n=7 lab, 44 field)	Max	8.28	8.5	467	1,260	<1	71	<0.00002	0.0061	<0.0001	<0.001	0.00123	0.026	<0.005
	Min	8.02	7.9	361	226	<1	46	<0.00001	0.0030	<0.0001	<0.0005	0.00031	<0.01	<0.003
	Median	8.11	8.1	439	450	1	62	0.00001	0.0036	0.00010	0.00050	0.00050	0.010	0.0030
PR-US-R5A (n=24 lab, 36 field)	Max	8.25	8.9	482	515	174	86	0.000065	[b]0.107	0.00026	0.0113	0.00126	7.13	0.034
	Min	7.05	7.6	173	164	<1	13	<0.00001	0.0030	<0.0001	<0.0005	0.00045	0.053	<0.003
	Median	7.85	8.4	197	217	5	15	0.000020	0.0064	0.00010	0.0010	0.00061	0.141	0.0050
R5A-MOB-US (n=1 lab, 2 field)	Max	8.20	8.6	247	285	24.9	13	<0.00002	0.0679	<0.0001	0.0014	0.00097	1.04	<0.005
	Min		8.6		280									
	Median		8.6		283									
PR-US-R5B (n=0 lab, 3 field)	Max	-	8.2	-	218	-	-	-	-	-	-	-	-	-
	Min		8.0		211									
	Median		8.2		217									
PR-IDZ (n=30 lab, 58 lab TSS/Turbidity, 361 field)	Max	8.14	9.6	225	965	171	20	<0.00002	0.142	<0.0001	0.0022	0.00086	0.698	0.010
	Min	7.05	7.0	178	163	<1	14	<0.00001	0.0042	<0.0001	<0.0005	<0.0005	<0.01	<0.003
	Median	7.81	8.4	195	219	5	16	0.000020	0.0055	0.00010	0.0010	0.00058	0.097	<0.0050

Notes: TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature, or chloride levels) are based on the minimum data statistic measured at the stations in 2021. Temperature of 10°C assumed.
[a] D-Cu guideline is the sample specific guidelines taken from the Cu Look-Up Table provided as a supplement to the Cu WQG and based on the Biotic Ligand Model software (BC ENV, 2019b). The guideline is temperature, pH, DOC, hardness, alkalinity, chloride, sulphate, Ca, Mg, K, Na, and humic acid content dependent. A unique guideline dependent upon pH, hardness and DOC is derived for each sample for the purpose of screening. The sample specific D-Cu guideline was exceeded for the following samples that are not shown in the table:
D-Cu Long-term BC WQG of 0.0004 mg/L: PR-IDZ – May 5 & September 8, PR-US-R5A – September 8.
D-Cu Long-term BC WQG of 0.0005 mg/L: PR-IDZ – August 18, PR-US-R5A – October 6.
D-Cu Long-term BC WQG of 0.0007 mg/L: PR-US-R5A – June 30.
Water quality for these stations is screened against WQGs to guide water management (Section 3.2.1) and does not imply non-compliance with the CEMP. ***Red italics*** indicate the result is elevated relative to the BC WQGs.
[b]Elevated Al concentrated attributed to laboratory error.

3.2.4 Right Bank

The water quality monitoring network that was utilized on the Right Bank in 2021 included several stations in Area 30, Area A, Approach Channel, Right Bank Core Trench, RSEM Area R6 and R5B catchments, and at the RSEM R6 and R5A sediment ponds.

Water transferred to the RSEM R6 East sediment control pond included surplus treated cement influenced water from the Conventional Vibrated Concrete (CVC) batch plant, runoff and groundwater seepage from the upper benches in the Approach Channel and north ditch water from Area A. Drainage from the 777 Haul Road ditches and the western extent of the Approach Channel accumulated in the R5B Phase 2 Sump. Lower bench Approach Channel and Right Bank Core Trench contact waters were transferred to the MWTF for treatment. Treated discharge from the MWTF Sludge Pond was discharged to the RSEM R6 West sediment control pond.

The station locations and sampling frequencies are listed in Table 3-13 and Table 3-14, respectively. The monitoring locations are shown in shown in Figure 3-17 (RSEM Area R5B, RSEM Area R6), Figure 3-18 (Area A and Area 30) and Figure 3-19 (RSEM Area R5A). Sampling within the catchment areas (Table 3-14) was as follows:

- Area 30 – samples were obtained from the sediment pond, sediment pond outlet and beaver pond;
- Area A – samples were obtained from ponded water in Area A at the North Ditch, Northeast Sump and Crusher ponds;
- Approach Channel - samples were obtained from sumps, baker tanks and ditches in Area 21 and the Approach Channel;
- RSEM Area R5B – water samples and field measurements were collected from the R5B Phase 2 Sump that receives runoff from the western Approach Channel;
- MWTF – water samples were collected from the pre-treatment pond, plant discharge and sludge collection ponds;
- RSEM Area R6 –Field measurements of sediment control pond inflows were taken at RSEM-R6-EP-US-SD, MWTF-SLP-R6 and DC-Discharge-R6-WP. Samples were routinely obtained from RSEM R6 East and West sediment control pond EOP stations (RSEM-R6E-EOP and RSEM-R6W-EOP) when the ponds were discharging; and
- RSEM Area R5A – water accumulations in the RSEM Area R5A sediment control ponds were monitored primarily with field measurements.

Table 3-13:
Water Quality Monitoring Stations in 2021 (Right Bank)

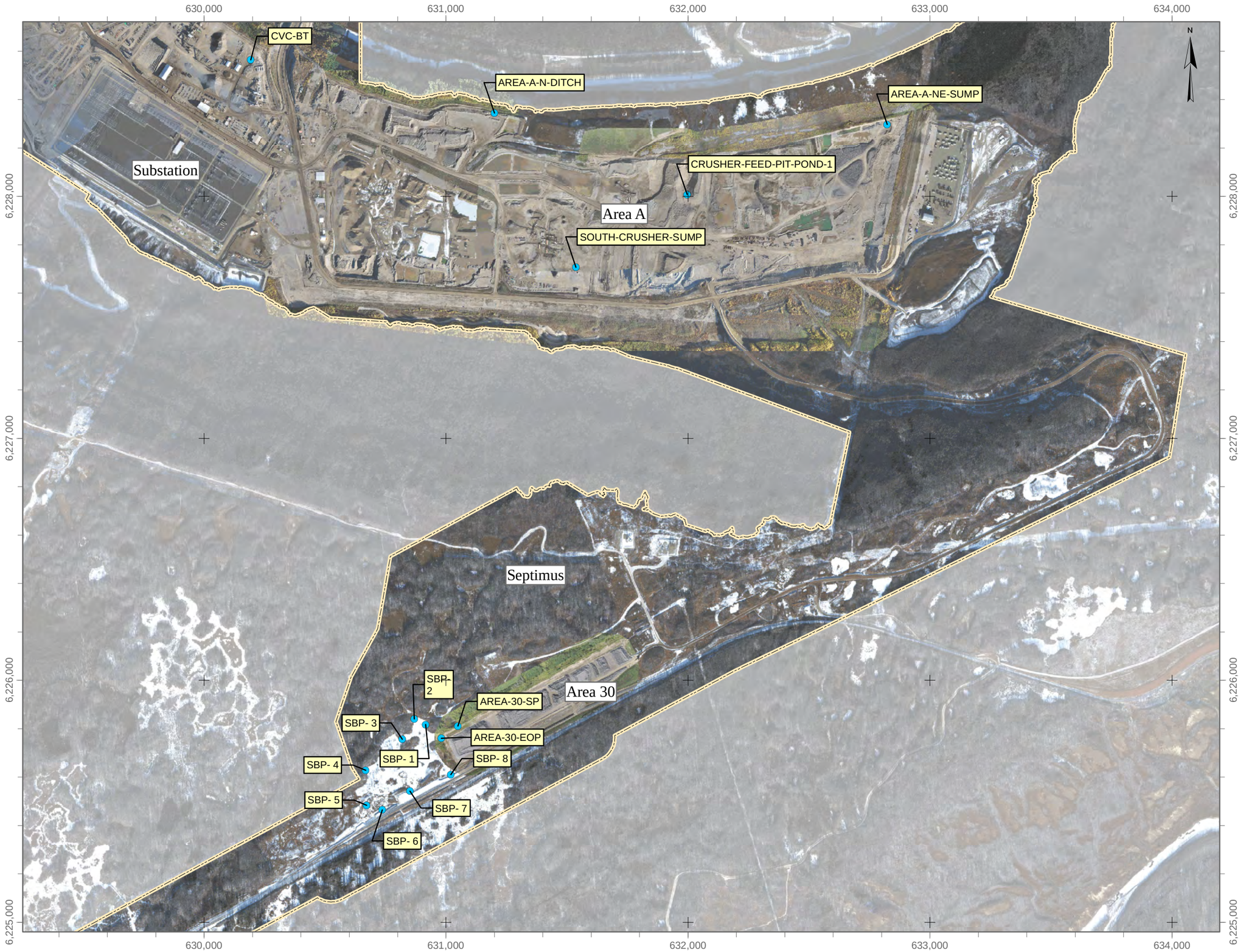
Station ID	Easting	Northing	Description
AREA 30 / SEPTIMUS			
AREA-30-SP	631049	6225811	Area 30 sediment control pond, in-pond
AREA-30-EOP	630980	6225761	Area 30 sediment control pond, end of pipe
SEPTIMUS-BEAVER-POND	630916	6225818	Septimus Beaver Pond sample location 1
	630869	6225840	Septimus Beaver Pond sample location 2
	630819	6225757	Septimus Beaver Pond sample location 3
	630668	6225628	Septimus Beaver Pond sample location 4
	630672	6225483	Septimus Beaver Pond sample location 5
	630737	6225465	Septimus Beaver Pond sample location 6
	630851	6225542	Septimus Beaver Pond sample location 7
	631020	6225610	Septimus Beaver Pond sample location 8
AREA A			
AREA-A-N-DITCH	631200	6228345	Ditch along the northern edge of Area A
AREA-A-NE-SUMP	632823	6228298	Sump for collection groundwater seepage in the northeast section of Area A and that is pumped to adjacent vegetation/wetland.
SOUTH-CRUSHER-SUMP	631537	6227707	Sump for collection groundwater seepage south of the crusher in Area A that is pumped to vegetation/wetland on the northwest section of Area A.
CRUSHER-FEED-PIT-POND-1	631996	6228008	Ponded water in the excavated area at the base of gravel stockpiles, east side
APPROACH CHANNEL, AREA 21 and AREA 23			
AC-E-HAIRPIN-DITCH	629091	6229269	Ditch on upper bench of Approach Channel excavation
AC-E-HAIRPIN-SUMP	629091	6229269	Sump on upper bench of Approach Channel excavation
AC-E-HAIRPIN-BT	629091	6229269	Baker tank used to store water collected in AC-E-HAIRPIN-DITCH
AC-W-HAIRPIN-SUMP	629046	6229337	Collection sump constructed May 2021 along hairpin road to intercept runoff to the AC-W-SUMP.
AC-E-SUMP (720 Sump)	629228	6229210	Collection sump at the base of the AC benches, east side. Also known as the 720 Sump.
AC-W-SUMP	629034	6229456	Collection sump at the base of the AC benches, west side. The sump was decommissioned in May 2021.
RBAC-SEEP	629594	6228841	Groundwater seep at southeast end of Approach Channel
RBAC-SUMP	629675	6228870	Groundwater sump at southeast end of Approach Channel
RBAC-SUMP-BT	629675	6228870	Baker tank used to store water collected in RBAC-SUMP
AREA-21-SUMP	629734	6228874	Collection sump that periodically receives discharge from the CVC-BT and runoff flow within the area.
AREA-23-BT	629514	6228781	Collection sump that receives runoff flow and groundwater seepage from ongoing Approach Channel excavation
RSEM AREA R5B			

Station ID	Easting	Northing	Description
R5B-P2-W-SUMP	628694	6229808	The runoff collection sump west of the Phase 2 R5B Sump.
R5B-P2-SUMP	628807	6229705	Phase 2 R5B sump the collects runoff RSEM Area R5B and the western extent of the Approach Channel excavation
MWTF			
RBDT-SUMP	630012	6228847	Right Bank Drainage Tunnel drainage collection sump. The sump is dewatered to the MWTF Pre-Treatment Pond.
MWTF-PRE-TREATMENT-POND	629883	6229012	Collection pond for possible ARD influenced water. Also known as PAG Pond. Samples are collected by Ensero.
MWTF-CELL-1-PIPE	629939	6229091	Treated water released from the MWTF to Cell 1 of the settling/sludge pond. Samples are collected by Ensero.
MWTF-CELL-3	629986	6229132	Treated effluent discharge at MWTF-SLP-R6. Samples are collected by Ensero.
MWTF-SLP-R6	629986	6229132	MWTF sludge pond final treated effluent
RSEM AREA R6			
RSEM R6E SUBCATCHMENT – CVC BATCH PLANT			
CVC-BT	630193	6228565	Baker tank adjacent to CVC plant that collects CVC discharge water, carbon dioxide sparging is used to treat pH
RSEM R6W SUBCATCHMENT – RCC AREA			
RCC-ZULA-DITCH	629794	6229229	Ditch along northern edge of RCC area
RSEM R6E SEDIMENT CONTROL POND			
RSEM-R6-EP-US-SD	630422	6228901	Ditch along SBIAR Road upstream of culvert
RSEM-R6E-SP-US	630393	6228828	Upstream of flocculant shack at R6 east sediment pond
RSEM-R6E-SP	630250	6229153	RSEM R6 East sediment control pond, in-pond
RSEM-R6E-EOP	630274	6229218	RSEM R6 East sediment control pond, end of pipe
RSEM R6W SEDIMENT CONTROL POND			
RSEM-R6-WP-C	630172	6229149	RSEM R6 West sediment control pond, in-pond, location C
RSEM-R6-WP-E	630229	6229129	RSEM R6 West sediment control pond, in-pond, location E
RSEM-R6W-SP	630240	6229161	RSEM R6 West sediment control pond, in-pond
RSEM-R6W-EOP	630273	6229219	RSEM R6 West pond, end of pipe
RSEM AREA R5A			
RSEM-R5A-P2-A-SP	628058	6230696	Phase 2 RSEM R5A sediment control pond A, in-pond
RSEM-R5A-P2-A-EOP	628085	6230733	Phase 2 RSEM R5A sediment control pond A, end of pipe
RSEM-R5A-P2-B-SP	628034	6230729	Phase 2 RSEM R5A sediment control pond B, in-pond
RSEM-R5A-P2-B-EOP	628085	6230733	Phase 2 RSEM R5A sediment control pond B, end of pipe
RSEM-R5A-P2-C-SP	627455	6231560	Phase 2 RSEM R5A sediment control pond C, in-pond
RSEM-R5A-P2-C-EOP	627481	6231594	Phase 2 RSEM R5A sediment control pond C, end of pipe
RSEM-R5A-P2-D-SP	627431	6231592	Phase 2 RSEM R5A sediment control pond D, in-pond
RSEM-R5A-P2-D-EOP	627481	6231594	Phase 2 RSEM R5A sediment control pond D, end of pipe

Table 3-14:
Summary of Water Quality Monitoring in 2021 (Right Bank)

Station ID[1]	*In situ* Continuous Measurements[2] (Y / N)	*In situ* Field Measurements		Analytical (Lab) Samples	
		Count[3]	Intended Frequency[4] (D / W / M / P)	Count	Intended Frequency[4] (D / W / M / P)
AREA 30 / SEPTIMUS HILL					
AREA-30-SP	N	0	P	6	P
AREA-30-EOP	N	17	P	6	P
SEPTIMUS-BEAVER-POND	N	0	P	8	P
AREA A					
AREA-A-N-DITCH	N	84	W	7	M
AREA-A-NE-SUMP	N	16	D	1	P
SOUTH-CRUSHER-SUMP	N	16	D	1	P
CRUSHER-FEED-PIT-POND-1	N	0	P	2	P
APPROACH CHANNEL, AREA 21 and AREA 23					
AC-E-HAIRPIN-DITCH	N	48	W	1	P
AC-E-HAIRPIN-SUMP	N	0	P	1	P
AC-E-HAIRPIN-BT	N	0	P	1	P
AC-W-HAIRPIN-SUMP	N	6	P	1	P
AC-E-SUMP (720 Sump)	N	41	W-M	3	P
AC-W-SUMP	N	15	W	1	P
RBAC-SEEP	N	1	P	0	P
RBAC-SUMP	N	108	D-W	0	P
RBAC-SUMP-BT	N	0	P	4	P
AREA-21-SUMP	N	32	D	0	P
AREA-23-BT	N	18	D-W	3	P
RSEM AREA R5B					
R5B-P2-W-SUMP	N	63	D-W	0	P
R5B-P2-SUMP	N	177	D-W	0	P
MWTF					
RBDT-SUMP	N	0	P	1	P
MWTF-PRE-TREATMENT-POND[5]	N	0	-	48	W
MWTF-CELL-1-PIPE[5]	N	0	-	47	W
MWTF-CELL-3[5]	N	0	-	50	W
MWTF-SLP-R6	N	164	W	0	P
RSEM AREA R6					
RSEM R6 SUBCATCHMENTS – CVC BATCH PLANT					
CVC-BT	N	37	D-W	1	P
RSEM R6 SUBCATCHMENTS – RCC EXCAVATION AREA					
RCC-ZULA-DITCH	N	1	P	0	P
RSEM R6 EAST SEDIMENT CONTROL POND					
RSEM-R6-EP-US-SD	N	169	W	3	P
RSEM-R6E-SP-US	N	7	P	2	P
RSEM-R6E-SP	Y	67	P	48	P
RSEM-R6E-EOP	N	291	D	289	D
RSEM R6 WEST SEDIMENT CONTROL POND					
RSEM-R6-WP-C	N	0	P	1	P
RSEM-R6-WP-E	N	0	P	1	P
RSEM-R6W-SP	Y	8	P	6	P
RSEM-R6W-EOP	N	340	D	343	D
RSEM AREA R5A					
RSEM-R5A-P2-A-SP	N	28	P	1	P
RSEM-R5A-P2-B-SP	N	27	P	1	P
RSEM-R5A-P2-C-SP	Y[6]	36	P	2	P
RSEM-R5A-P2-D-SP	Y[6]	60	P	3	P

[1] -SP = sediment control pond, in pond location;-EOP = sediment control pond, end of pipe location.
[2] Y = Yes; N = No.
[3] Field duplicates are not included in the table.
[4] Intended monitoring frequency when flow or water level is adequate to obtain *in situ* measurement or surface water sample; D = Daily, W = Weekly, M = Monthly, P = Periodic (as needed). Measurements and samples are collected at the intended frequency if there is sufficient water at the time of monitoring. Intended frequencies are aligned with guidance in the Acid Rock Drainage and Metal Leachate Management Plan (BC Hydro, 2016a).
[5] The MWTF samples were collected by Ensero.
[6] Sonde was installed during periods when the pond water levels were elevated, however the pond did not discharging.



LEGEND

- Monitoring Location

Note: Site C aerial imagery collected October 2020-September 2021

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

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0 200 400 Meters

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PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

Area A and Area 30
Water Quality Sampling Locations

PROJECT #: A416-1 *FIGURE:* 3-18

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627,000 627,500 628,000 628,500 629,000

6,232,000 6,231,500 6,231,000 6,230,500

N

RSEM-R5A-P2-D-SP
RSEM-R5A-P2-C-EOP
RSEM-R5A-P2-D-EOP
RSEM-R5A-P2-C-SP
PR-US-R5A
Peace River
RSEM-R5A-P2-B-SP
RSEM-R5A-P2-B-EOP
RSEM-R5A-P2-A-SP
RSEM-R5A-P2-A-EOP
R5A-MOB-US

LEGEND

- Monitoring Location

Note: Site C aerial imagery collected October 2020-September 2021

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

RSEM Area R5A and West Pine Quarry Water Quality Sampling Locations

PROJECT #: A416-1 *FIGURE:* 3-19

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3.2.4.1 Area 30 / Septimus Hill

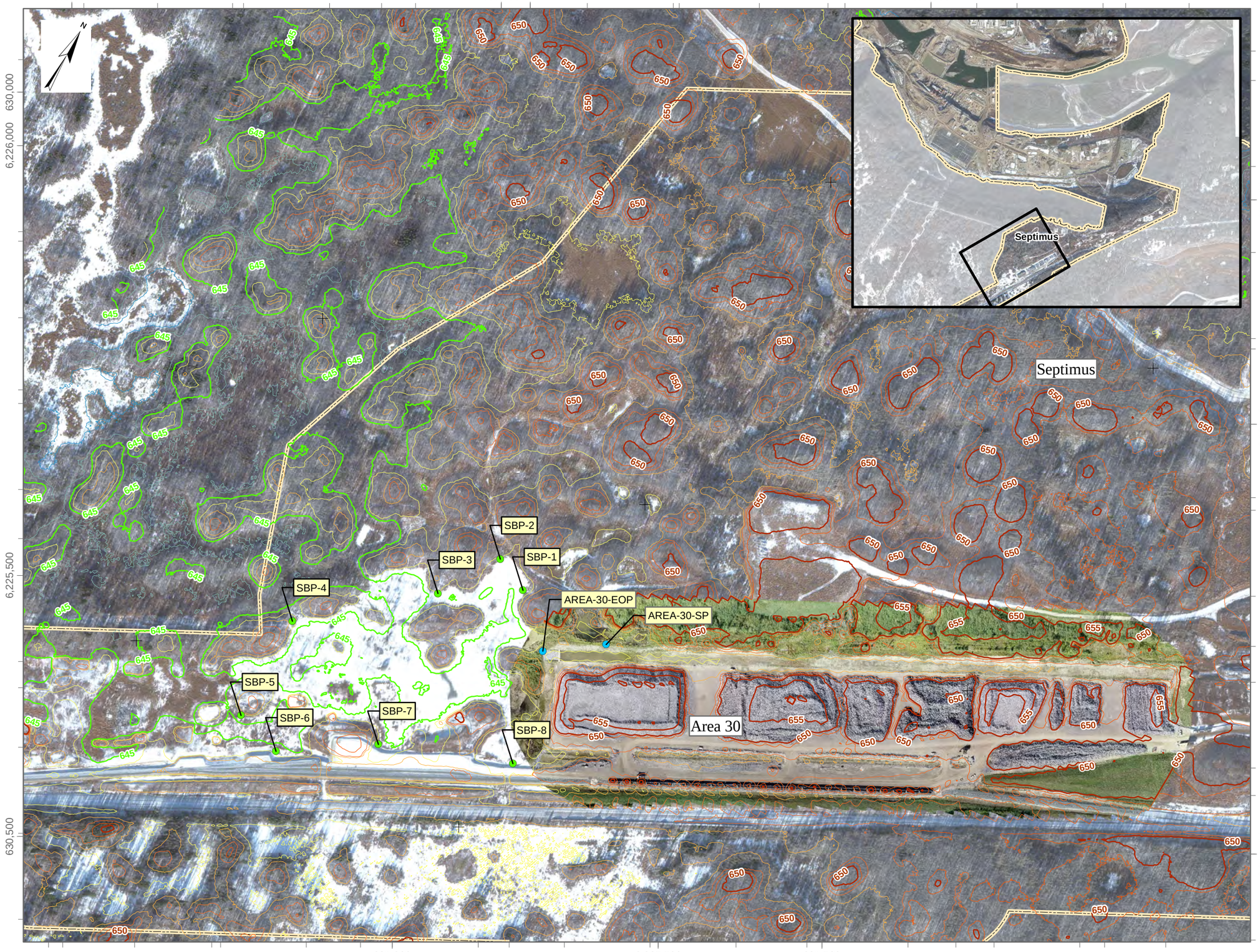
Area 30 is located southeast of the dam construction area and includes the rail loadout facility located on Septimus Hill that receives and stockpiles limestone aggregate from the West Pine Quarry. Runoff from the stockpiled aggregate accumulates in the Area 30 sediment control pond, located along the northern edge of Area 30 which discharges to the adjacent Septimus beaver pond through a coarse aggregate channel bound in wire cages. The extent of the beaver pond is roughly defined by the aggregate storage pad to the east, the rail bed to the south and the 646 m topographic contour to the north and west (Figure 3-20). Flow from the beaver pond disperses into a diffuse drainage that extends west of the pond as illustrated by the 644 and 643 m contours in.

The sediment pond or discharge was monitored on at least a monthly frequency April through October during ice free periods and samples submitted to the analytical laboratory. The limestone at West Pine Quarry has been identified as having a potential for selenium leaching under neutral to alkaline conditions.

Visual flow estimates of the Area 30 sediment pond on days when water quality monitoring was conducted indicate flow out of the sediment pond was < 2.0 L/s except during early spring freshet (Table 3-15). During late summer and autumn pond discharge decreased with only minor flow noted October 7. Field measurements were collected at the Area 30 sediment control pond indicate that the pond discharge was circum-neutral to slightly alkaline, with conductivity up to 2,700 µS/cm (Table 3-16). The maximum sediment pond EOP TSS concentration was 13.1.mg/L.

Table 3-15:
Area 30 Sediment Pond 2021 Discharge Flows.

Date	Flow Observation (L/s)	Date	Flow Observation (L/s)
2021-04-03	3	2021-08-07	1
2021-04-07	0.5	2021-08-22	2
2021-04-11	No Flow	2021-08-27	No Flow
2021-05-01	< 0.5	2021-09-02	No Flow
2021-05-22	0.5	2021-09-15	No Flow
2021-06-10	< 0.5	2021-09-19	No Flow
2021-06-17	1	2021-10-07	0.2
2021-07-18	1	2021-11-05	No Flow
2021-07-22	2		



LEGEND

- Monitoring Location
- Beaver Pond Sampling Location
- 5m Contour (650m and above)

1m Contour Elevation (m)

- 643
- 644
- 645
- 646
- 647
- 648
- 649
- Property Boundary

Notes:
1, Site C aerial imagery for Area 30 collected September 2021. Imagery outside this area collected October 2020.
2. Topography for Area 30 collected September 2021. Topography outside of this area collected on October 2017 sitewide Lidar survey

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:5,000

0 100 200 Meters

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PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

Area 30 Water Quality Sampling

PROJECT #:	A416-7	*FIGURE:*	3-20

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Table 3-16:
Area 30/Septimus Hill 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cr	T-Se	T-U
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Short-term BC WQG		-	6.5-9.0	-	-	WQG	-	-	-	-
Long-term BC WQG		-	-	-	-		429	0.001 (CrVI), 0.0089 (CrIII)	0.002	0.0085
[1]Area-30-SP (n=6 lab, 0 field)	Max	8.13	-	2,660	-	34.3	1,640	0.0028	0.0113	0.00996
	Min	6.74		478		1.3	201	<0.001	0.00088	0.00139
	Median	7.55		1,790		3.7	966	0.0011	0.00735	0.00436
[1]Area-30-EOP (n=6 lab, 17 field)	Max	7.92	8.9	2,700	2,940	13.1	1,700	0.0066	0.00886	0.00949
	Min	6.94	7.8	523	498	2.5	186	<0.001	0.00087	0.00271
	Median	7.48	8.1	1,660	1,701	6.8	819	0.0011	0.00686	0.00475
[2]SEPTIMUS-BEAVER-POND (n=8 lab, 0 field)	Max	8.35	-	689	-	19.6	98	<0.001	0.00015	0.00085
	Min	8.21		582		3.6	18	<0.001	<0.0001	0.00012
	Median	8.25		644		7.6	89	0.0010	0.00012	0.00030

Notes: TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature, or chloride levels) are based on the minimum data statistic measured at the Area 30 stations in 2021. Temperature of 10°C assumed.
[1]Water quality for stations Area-30-EOP and Area-30-SP is screened against short-term WQGs to guide water management (Section 3.2.1) and does not imply non-compliance with the CEMP. ***Red italics*** indicate the result from Septimus-Beaver-Pond is elevated relative to long-term BC WQGs.

The analytical samples from the sediment pond discharge (Area-30-EOP) met BC WQGs for all parameters, with the exception of long-term guidelines for sulphate, T-Cr, T-Se and T-U (Table 3-16). Sulphate, Se and U were primarily present in dissolved form but D-Cr remained below the analytical detection limit. Long-term guidelines are used as an early screening standard for the sediment pond water but are developed for the receiving environment, which in the case of Area 30 is the Septimus beaver pond. Time series variations of these parameters are presented in Figure 3-21. No consistent trends are observed between parameters through the course of the year with the exception that all four parameters displayed the lowest concentrations in April and November, which suggests that the potential for sulphate and selenium loading to the beaver pond is highest May through October.

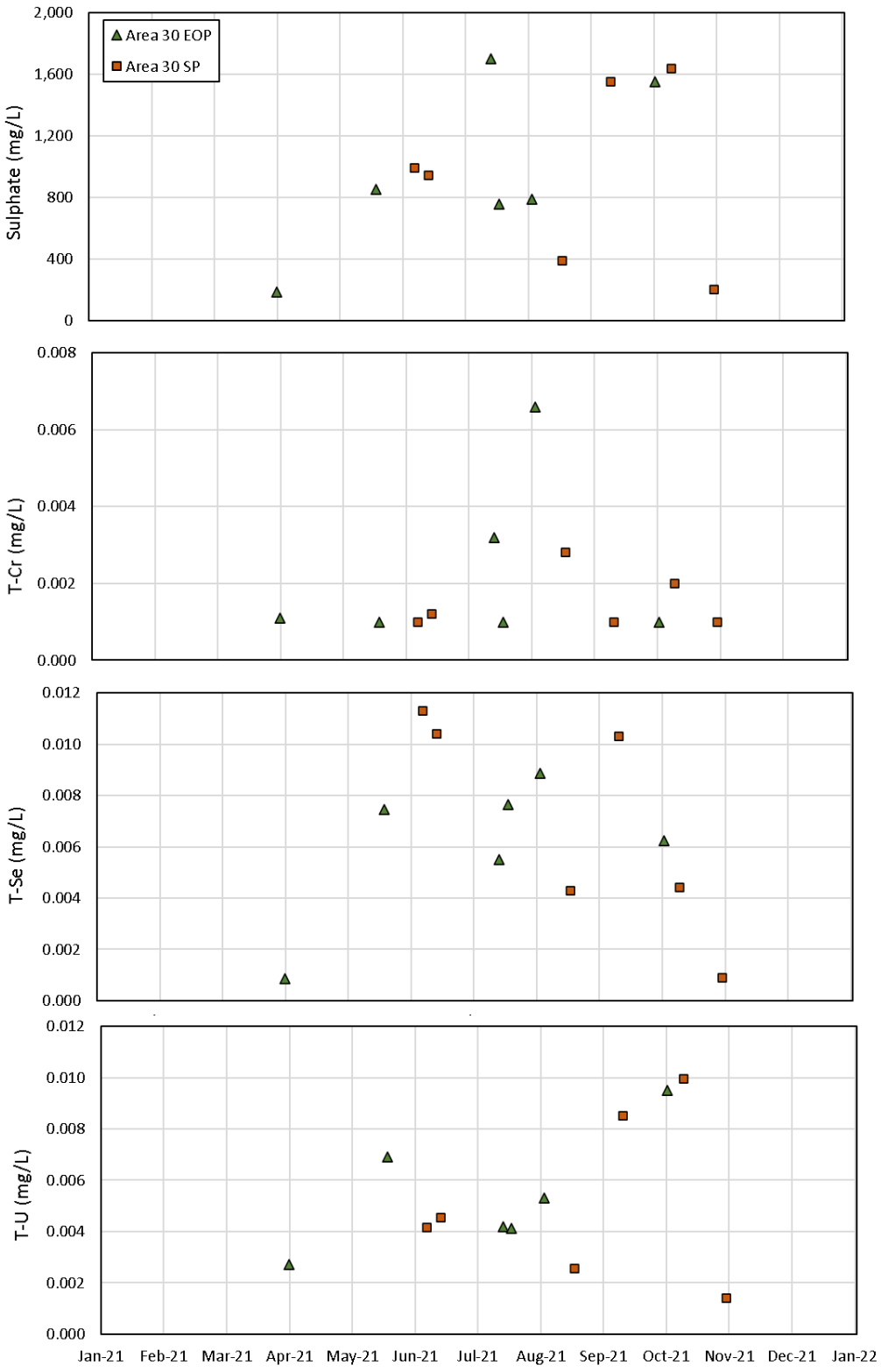

Figure 3-21: Area 30 SP and EOP time-series plots of Sulphate, Chromium, Selenium and Uranium

Detection of Se concentrations above the long-term WQG in the Area 30 sediment pond triggered additional monitoring of the water quality in the Septimus beaver pond to evaluate if the discharge of sediment pond water is elevating concentrations of sulphate and selenium above WQGs in the receiving environment. The water quality survey that was conducted by PRHP staff in the Septimus beaver pond on October 15 to evaluate spatial concentration variations within the pond determined that both SO_4 and Se remained below the long-term WQGs. A total of nine samples were collected from locations including the Area-30-SP station, along the rail bed berm, and the northwest side of the pond (Figure 3-20). On the day of the survey, Area-30-SP sulphate (1640 mg/L) remained near the maximum SO_4 level recorded in sediment pond but Se had decreased to 0.004 mg/L, which was roughly 40% of the maximum Se level. A similar relative signature was observed between SO_4 and Se in the Septimus beaver pond. Although SO_4 remained well below the long-term WQG at all stations in the beaver pond, concentrations between 80 mg/L and 95 mg/L in all but the two most distant stations from Area 30 (SPB-5 and SPB 6) confirms that contact water from the Area 30 aggregate storage pads flows through the Septimus beaver pond.

Additional water quality monitoring is recommended in the Septimus beaver pond. In the event that the monitoring indicates that the Se leaching potential is unacceptable, the water management ponds in Area 30 will be converted into zero-discharge holding ponds, if required.

3.2.4.2 Area A

Area A is located south-east of the dam construction area, and east of the SBIAR. Within this area, NPAG overburden and aggregate are excavated and transported to the Phase 2 Crusher to produce aggregate that is temporarily stockpiled for use at the construction site. Phase 2 Crusher water is directed to a sludge pond in Area A to settle TSS, and clarified water is recycled within the crusher circuit. Surface runoff and groundwater accumulates in low-lying, excavated areas within the eastern side of Area A. Accumulated water was monitored in several of the low-lying inundated areas including the CRUSHER-FEED-PIT-POND-(March 19, October 16), SOUTH-CRUSHER-SUMP (November 3) and AREA-A-NE-SUMP (November 4).

The North Ditch, located along the northern edge of Area A between the SBIAR and the Phase 2 Crusher facility, was monitored approximately monthly for analytical measurements, and weekly for field parameters, from March through October. This ditch receives runoff from the slope northwest and downgradient of the Phase 2 Crusher facility. The North Ditch water was directed to the Phase 2 Crusher in 2020, as needed, and was also periodically directed to RSEM R6 East sediment control ponds from January through

September. From October 25 through December the North Ditch was allowed to passively overtop and flow down the bank to a side channel of the Peace River.

Overburden was excavated in low lying sections of Area A in November. Groundwater surfacing in low lying areas was directed to the Northeast Sump and the South Crusher Sump. The sumps, in turn, were dewatered to vegetated areas along the northern side of Area A. The South Crusher Sump and the Area A Northeast Sump were dewatered from November 5 to 17 (NE Sump) and November 3 to 18 (South Crusher Sump). Corresponding field measurements were collected daily during dewatering and with each analytical sample. Analytical samples were collected November 3 and 4 from the SOUTH-CRUSHER-SUMP and AREA-A-NE-SUMP stations, respectively.

All AREA-A-N-DITCH, AREA-A-NE-SUMP, CRUSHER-FEED-PIT-POND-2 and SOUTH-CRUSHER-SUMP samples were circum-neutral with low sulphate levels (<150 mg/L). TSS levels were generally low (<25 mg/L), and water quality met WQG (Table 3-17), except TSS, Cr, Fe and Zn in an AREA-A-N-DITCH sample collected March 18. The elevated total metal concentrations in this sample are attributed to the elevated TSS (51.6 mg/L).

Table 3-17:
Area A 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cr	T-Cu	T-Fe	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Short-term BC WQG[1]		-	6.5-9.0	-	-	WQG	-	-	0.11	-	-	1	0.0363
Long-term BC WQG[1]		-	-	-	-		309	-	0.004	0.001 (CrVI), 0.0089 (CrIII)	-	-	0.0108
AREA-A-N-DITCH (n=7 lab, 84 field)	Max	8.18	8.7	572	644	51.6	70	0.000080	0.0012	0.0022	0.00483	2.45	0.0117
	Min	7.45	7.1	214	245	1.1	17	0.000013	<0.0002	<0.001	0.00059	0.053	<0.005
	Median	8.04	7.8	499	524	2.1	45	0.000022	0.0002	0.0010	0.00082	0.163	0.005
AREA-A-NE-SUMP (n=1 lab TSS/Turbidity, 16 field)	Max	-	8.5	-	837	26.3	-	-	-	-	-	-	-
	Min		7.8		614								
	Median		8.2		730								
CRUSHER-FEED-PIT-POND-1 (n=2 lab, 0 field)	Max	8.16	-	536	-	18.4	85	0.000037	0.00062	0.0021	0.00221	1.34	0.0089
	Min	7.15		150		2.5	28	0.000012	0.00022	<0.001	0.00067	0.142	<0.005
	Median	7.66		343		10.5	56	0.000025	0.00042	0.0016	0.00144	0.741	0.0070
SOUTH-CRUSHER-SUMP (n=1 lab, 16 field)	Max	7.90	8.2	378	480	1.3	35	0.000041	<0.0002	<0.001	0.00056	0.076	<0.005
	Min		7.7		393								
	Median		7.9		438								

Notes: TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature, or chloride levels) are based on the minimum data statistic measured at the stations in 2021. Temperature of 10°C assumed.
Water quality for station AREA-A-N-DITCH is screened against WQGs to guide water management (Section 3.2.1) and does not imply non-compliance with the CEMP. ***Red italics*** indicate the result is elevated relative to the BC WQGs.

3.2.4.1 CVC Batch Plant

The CVC Batch Plant produces concrete and is located on the northeastern side of Area 21. A baker tank is located adjacent to the plant to collect CVC discharge (station CVC-BT), which is treated to reduce pH prior to periodic discharge to RSEM R6 East pond via the SBIAR ditch. Weekly field measurements were collected by field staff from the CVC baker tank in 2021 and an analytical sample was collected on May 11. Elevated pH measurements (above pH 9) were taken prior to treatment with carbon dioxide. The treated waters were circum-neutral with conductivity generally elevated (median value 1997 µS/cm). Total metal concentrations are generally low although copper was detected at 0.0132 mg/L and was primarily present in soluble form (Table 3-18).

Table 3-18:
CVC Batch Plant 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		-	-	µS/cm	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CVC-BT (n=1 lab, 37 field)	Max	12.30	12.4	5,810	3,790	19.3	957	<0.00005	0.0022	0.0132	<0.025
	Min		6.1		255						
	Median		7.0		1,997						

Notes: TSS = Total suspended solids.

3.2.4.2 RCC Area

The RCC area will house the future powerhouse, spillway and related facilities. Groundwater seepage, runoff and construction water in contact with the cement-based products used in the RCC area are generally slightly alkaline due to cement influence. The Zula ditch is located adjacent to the northern edge of the RCC area and received water from this area in 2020. In 2021 Q1 the management of the ditch was transferred from PRHP to AFDE and the Zula Ditch waters are no longer discharged through RSEM sediment control ponds that are managed by PRHP.

Field measurements were collected by PRHP on February 23 from the Zula Ditch waters (Table 3-19). The water quality was slightly alkaline (pH 8.4) with elevated turbidity (111 NTU) and moderate conductivity (270 µS/cm).

Table 3-19:
RCC Area 2021 Annual Water Quality Summary

Parameter		Field pH	Field Conductivity	Field Turbidity
Units		-	µS/cm	NTU
RCC-ZULA-DITCH (n=0 lab, 1 field)	Value	8.4	270	111

Notes: TSS = Total suspended solids.

3.2.4.3 Approach Channel, Area 21 and Area 23

The Approach Channel is located south of the Right Bank Cofferdam. This area extends from Area 21 northwest to RSEM Area R5B. Excavation of the Approach Channel PAG bedrock slope, which faces the Earthfill Dam Core Trench, was partially conducted in late 2018, and again in mid-2020 with construction of several haul roads across the Approach Channel benches. Excavation of the Approach Channel resumed in November 2021 and is anticipated to continue through March 2022. The sequence of excavation in 2-year time steps from 2017 is discussed in Section 4.3.1. Area 21 is located immediately adjacent to, and southeast of, the Approach Channel.

In 2021, surface runoff, groundwater seepage and PAG-contact waters from the Approach Channel were intercepted and managed with a network of sumps, ditches, baker tanks and active water management (*i.e.,* pumps, hoses and water trucks). Runoff and groundwater seepage along the upper benches of the excavation were intercepted and stored in AREA-23-BT and AC-E-HAIRPIN-BT and directed to the RSEM R6 East sediment control pond, whereas the lower bench sumps (AC-E-SUMP and AC-W-SUMP) were dewatered to the MWTF. Runoff volumes were low in Q1 and Q4 due to generally frozen conditions. During May and June, a temporary sump (AC-W-HAIRPIN-SUMP) was constructed near the eastern end of the Approach Channel to intercept seepage and runoff flows to the AC-W-SUMP and lower benches of the Approach Channel, and the AC-W-SUMP was decommissioned. The Hairpin ditch, sumps and baker tank were decommissioned early November due to Approach Channel construction in the area. For most of 2021, the AREA-21-SUMP received water from AC-E-HARIPIN-BT and was in turn dewatered to RSEM R6 East sediment control pond. Groundwater seepage in the eastern Approach Channel that accumulated in the RBAC-SUMP-BT baker tank, and water from the AC-W-HAIRPIN-SUMP, were directed to the MWTF.

Field measurements were collected every few days to every few weeks at the various Approach Channel stations when water was present in sufficient quantity for monitoring, generally in Q2 and Q3 of 2021. Analytical samples were collected infrequently with one sample collected at most stations and a few more samples collected at the AC-E-SUMP, RBAC-SUMP-BT and AREA-23-BT monitoring stations.

Despite the potential for strong PAG influence in the Approach Channel, water quality samples collected at the monitoring stations were typically circum-neutral to slightly alkaline, as shown in Table 3-20. Field and analytical measurements of waters from the southwestern upper benches of the Approach Channel, collected at AC-E-HAIRPIN-DITCH, AC-E-HAIRPIN-SUMP, AC-E-HARIPIN-BT, AC-W-HAIRPIN-SUMP and AREA-21-SUMP, indicate these waters are generally circum-neutral to slightly alkaline

with low to moderate sulphate concentrations (28 to 383 mg/L). Conductivity ranged from 186 to 2,330 µS/cm and TSS levels were typically below 20 mg/L. The total metal (Cd, Co, Cu and Zn) concentrations observed in these samples are attributed to TSS. A single low field pH measurement (pH 5.2) was recorded late March at AC-E-HAIRPIN-DITCH, following warmer temperatures and increased runoff due to snowmelt. The low field pH value may indicate a brief period of ARD influence in the freshet runoff that was intercepted by the East Hairpin Ditch.

Groundwater seeps and runoff along southeastern edge Approach Channel were intercepted and stored in the AREA-23-BT baker tank. The nearby RBAC-SUMP-BT baker tank stored water from the RBAC groundwater seep (RBAC-SEEP) and the RBAC-SUMP. Field measurements at these stations indicate the water quality was circum-neutral to slightly alkaline with low to moderate sulphate levels (51 – 252 mg/L) and conductivity ranging from 261 to 2,720 µS/cm as shown in Table 3-20. The TSS was generally above 25 mg/L in the analytical samples and is the dominant influence on the concentrations of total metals (Cd, Cu, Co and Zn) observed in the RBAC and Area 23 samples.

The water quality of runoff within the Approach Channel area was circum-neutral to alkaline at the AC-E-SUMP and AC-W-SUMP stations. Sulphate concentrations were moderate to high (249 to 1,920 mg/L) and field conductivity ranged from 214 to 4,350 µS/cm (Table 3-20). The TSS levels ranged from 2.1 to 444 mg/L and the observed total metal (Cd, Co, Cu and Zn) concentrations are attributed to both TSS and soluble forms of these metals.

Table 3-20:
Approach Channel 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
AC-E-HAIRPIN-DITCH (n=1 lab, 48 field)	Max	7.75	8.7	186	1,637	1740	28	0.00229	0.0268	0.0769	0.278
	Min		5.2		226						
	Median		8.0		1,090						
AC-E-HAIRPIN-SUMP (n=1 lab, 0 field)	Value	8.02	-	1,280	-	4	383	0.000135	0.0015	0.00123	0.012
AC-E-HAIRPIN-BT (n=1 lab, 0 field)	Value	8.22	-	1,050	-	18.8	241	0.000081	0.00087	0.00163	0.010
AC-W-HAIRPIN-SUMP (n=1 lab, 6 field)	Max	8.13	7.7	991	1,184	8.2	155	0.000037	0.00023	0.00060	<0.005
	Min		7.2		874						
	Median		7.4		906						
AC-E-SUMP (n=3 lab, 41 field)	Max	8.16	9.5	3,800	4,350	13.9	1,920	0.000187	0.0066	0.00340	<0.025
	Min	6.85	7.0	694	214	2.1	249	0.000068	0.0020	0.00268	<0.005
	Median	7.77	8.2	2,720	2,500	12.0	1,140	0.000118	0.0059	0.00281	0.018
AC-W-SUMP (n=1 lab, 15 field)	Max	7.60	8.4	1,310	1,515	444	460	0.00308	0.0632	0.0403	0.489
	Min		6.6		790						
	Median		8.0		1,036						
RBAC-SEEP (n=0 lab, 1 field)	Value	-	8.2	-	1,016	-	-	-	-	-	-
RBAC-SUMP (n=0 lab, 108 field)	Max	-	9.1	-	2,720	-	-	-	-	-	-
	Min		7.2		261						
	Median		8.2		1,020						
RBAC-SUMP-BT (n=4 lab, 0 field)	Max	8.21	-	1,380	-	147	252	0.000176	0.00272	0.00761	0.0365
	Min	7.66		481		2.5	41	0.000018	<0.0002	0.00054	<0.005
	Median	8.08		877		16.1	85	0.000051	0.00112	0.00223	0.0118
AREA-21-SUMP (n=0 lab, 32 field)	Max	-	9.0	-	2,330	-	-	-	-	-	-
	Min		6.8		230						
	Median		8.3		381						
AREA-23-BT (n=3 lab, 18 field)	Max	8.18	8.8	856	1,097	2,540	90	0.00151	0.0338	0.138	0.432
	Min	8.05	7.8	676	764	274	47	0.000037	0.0015	0.00212	0.0078
	Median	8.10	8.4	757	912	503	51	0.000329	0.0066	0.0199	0.060

Notes: TSS = Total suspended solids.

3.2.4.4 RSEM Area R5B

RSEM Area R5B is located northeast of the Approach Channel area. The R5B Phase 2 Sump receives surface runoff from the western Approach Channel area, via the R5B Phase 2 West Sump, from the ditches and sumps along the 777 Haul Road and from within the RSEM Area R5B Phase 2 catchment. The R5B Phase 2 sump was dewatered to RSEM R6 sediment control ponds, as needed throughout 2021.

Field measurements were collected daily to weekly at the R5B Phase 2 Sump and West Sump stations in 2021. The R5B-P2-W-Sump received runoff from the western extent of the Approach Channel area and was pumped to the R5B Phase 2 Sump for storage. The water quality was neutral to slightly alkaline Table 3-21 and conductivity elevated to 1,740 µS/cm. The R5B-P2-Sump was also slightly alkaline with conductivity elevated to 1,427 µS/cm. The R5B-P2-Sump water had moderate sulphate concentrations (up to 392 mg/L), and generally low TSS (median value of 7.9 mg/L), and metal concentrations below RSEM EOP discharge limits.

Table 3-21:
RSEM Area R5B 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
R5B-P2-W-SUMP (n=0 lab, 63 field)	Max	-	8.8	-	1,740	-	-	-	-	-	-
	Min		7.0		358						
	Median		8.3		897						
R5B-P2-SUMP (n=24 lab, 177 field)	Max	8.44	8.8	1,280	1,429	90.1	392	0.000277	0.0116	0.00601	0.018
	Min	8.03	7.8	789	735	1.5	157	<0.00001	<0.0002	0.00056	<0.005
	Median	8.27	8.4	968	1,019	7.9	236	0.000014	0.00033	0.00139	0.005

Notes: TSS = Total suspended solids.

3.2.4.5 Mobile Water Treatment Facility (MWTF)

The MWTF is located in RSEM Area R6 adjacent to the Pre-Treatment Pond (the former AK Pond). Contact waters potentially influenced by ARD and requiring treatment prior to discharge are directed to the Pre-Treatment Pond which is in turn pumped to the MWTF. Treated water passively discharges from the Sludge Pond after solids settling and pH adjustment and flows along a lined channel to RSEM R6 West sediment control pond. It is monitored at station MWTF-SLP-R6. The configurations and operation of the MWTF and related facilities are described in Section 4.3.3 and shown in Figure 4-5. The Approach Channel PAG-contact waters were directed to the MWTF Pre-Treatment Pond throughout

2021, as well as PAG and shotcrete contact water from other areas on both the Right and Left Bank, as needed (*e.g.*, LBEX and LBCD).

The treatment plant operated throughout 2021 with exceptions during periods when Pre-Treatment Pond water levels were low, for cold-weather maintenance and for Sludge Pond dredgeate removal. A combined total of approximately 400 m^3 of sludge was removed on January 26th, June 1st to 3rd and October 6th to 9th. Sludge removed in June and October was placed in geotextile bags for dewatering and deposited in RSEM R5A. Near the end of Q2 and throughout Q3 and Q4, the MWTF operated at a decreased frequency due to dry conditions on site.

Throughout 2021, field measurements were collected by PRHP Environmental Monitors at MWTF-SLP-R6 every few days when the MWTF was discharging. Process control analytical samples were collected weekly by Ensero (the MWTF operator) at the Pre-Treatment Pond, MWTF-Cell-1-Pipe, and MWTF-Cell-3 when the plant was operating. MWTF-SLP-R6 and MWTF-Cell-3 represent the same sampling location with field measurements collected from the former and analytical samples from the latter.

Throughout 2021, Pre-Treatment Pond water samples were alkaline and occasionally showed elevated TSS, T-Cd, T-Co, T-Cu, and T-Zn concentrations (Table 3-22). One analytical sample was collected at the end of June from the Right Bank Drainage Tunnel sump (RBDT-SUMP) which was dewatered to the MWTF Pre-Treatment Pond. This sample showed alkaline pH and moderate TSS, sulphate and metal concentrations. At the inflow to the sludge settling pond (MWTF-Cell-1-Pipe), TSS levels were generally elevated. Samples representative of treated effluent collected at MWTF-Cell-3 show circum-neutral to alkaline pH and relatively low TSS and metal concentrations. Similarly, field measurements collected at MWTF-SLP-R6 show circum-neutral to slightly alkaline pH and conductivity up to 1,914 µS/cm. The monitoring data indicate that the MWTF was effective at reducing TSS, Cd, Co, Cu and Zn concentrations in treated effluent compared to corresponding influent concentrations.

Table 3-22:
MWTF 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RBDT-SUMP (n=1 lab, 0 field)	Max	8.69	-	1,520	-	19.4	352	0.000036	0.00058	0.00525	0.0341
	Min										
	Median										
PRE-TREATMENT MWTF-Pre-Treatment-Pond (n=48 lab, 0 field)	Max	9.97	-	-	-	3,900	-	0.00296	0.0696	0.175	0.723
	Min	7.79				8.3		0.000016	0.00081	0.00266	0.0118
	Median	8.44				68		0.000070	0.00240	0.00630	0.0319
DISCHARGE to SLUDGE POND MWTF-Cell-1-Pipe (n=48 lab TSS/Turbidity, 0 field)	Max	-	-	-	-	2,200	-	-	-	-	-
	Min					19					
	Median					150					
FINAL TREATED EFFLUENT MWTF-Cell-3 (n=50 lab, 0 field)	Max	10.60	-	-	-	16	-	<0.00005	0.00133	0.00260	<0.025
	Min	6.64				<1		<0.00001	<0.0002	0.00071	<0.003
	Median	7.84				5.4		0.00001	0.00029	0.00150	0.005
FINAL TREATED EFFLUENT MWTF-SLP-R6 (n=0 lab, 164 field)	Max	-	8.8	-	1,914	-	-	-	-	-	-
	Min		6.4		451						
	Median		7.7		1,303						

Notes: TSS = Total suspended solids.

3.2.4.6 RSEM Area R6 Sediment Control Ponds

The RSEM Area R6 East and West sediment control ponds are divided by a berm which isolates the two ponds from each other. The berm was designed to allow the cells to merge in a large (greater than 1-in-10 year 24-hour) storm event. The East and West ponds discharge through separate culverts onto a shared rip rap-protected outfall, which descends the bank to the Peace River. Two stations have been established in each pond: one station within the pond itself (the SP station), and another for sampling discharge from the end of pipe (the EOP station). The EOP station is sampled if there is discharge at the time of monitoring.

In 2021, the RSEM R6 East sediment control pond received surface runoff and periodic discharges from the CVC Batch Plant (CVC-BT) via the SBIAR ditch (RSEM-R6-EP-US-SD), as well as site waters periodically transferred from LBEX Bench 1 Sump, Area A North Ditch and the R5B Phase 2 Sump. The RSEM R6 West sediment control pond received surface runoff and periodic water transfers from water storage facilities across the site depending on management needs, including Area 21 Sump, Approach Channel sumps, Earthfill Dam sumps and R5B Phase 2 Sump. Treated effluent from the MWTF is discharged to RSEM R6 pond along a discharge channel.

Analytical water quality monitoring of RSEM R6 East and West sediment control ponds was conducted throughout 2021, including daily at EOP when discharging or occasional in-pond sampling as water levels allowed. The continuous measurement *in situ* sonde was deployed in-pond throughout 2021 at both ponds, excluding brief periods when the pond was not discharging due to low water levels, or the sonde required maintenance. Field measurements were collected on a daily to weekly basis at RSEM-R6-EP-US-SD, upstream of the RSEM R6 East pond, when flowing, and three analytical samples were collected in March, May and July. Field measurements and two analytical samples were also collected at RSEM-R6E-SP-US, upstream of the RSEM R6 East pond flocculation shack, from March to August, with the analytical samples collected May 27 and August 22.

The monitoring records for the RSEM R6 East sediment control pond indicate that the pond discharged most days in 2020, and daily from August into December. The RSEM R6 West sediment control pond generally discharged at flows < 40 L/s with flows dropping to 2 L/s or lower in November and December. Subsequently, pH adjusted treated effluent from the MWTF discharged passively along a lined discharge channel to the RSEM R6 West pond. An access road crossed the discharge channel and flows are directed through a zinc plated culvert under the road crossing. Analytical water quality data and *in situ* field pH

measurements for RSEM Area R6 East and West Ponds are summarized in the sections below.

RSEM Area R6 East Catchment

Waters at RSEM-R6-EP-US-SD, located at the inlet to the RSEM R6 East sediment control pond conveyance ditch, were circum-neutral to alkaline, reflecting the influence of the CVC batch plant water. Sulphate levels elevated to 248 mg/L and TSS concentrations were variable. Elevated Cd, Cu, Co and Zn metal at RSEM-R6-EP-US-SD are attributed primarily to elevated TSS. Water at RSEM-R6E-SP-US was similarly variable with elevated Cd, Cu, CO and Zn concentrations attributed to TSS.

The 2021 monitoring data indicate the RSEM R6 East sediment control pond water and EOP discharges were circum-neutral to slightly alkaline, with sulphate concentrations up to 371 mg/L. The RSEM EOP limits were met for all analytical samples and *in situ* field pH measurements for RSEM R6 East sediment control pond discharges, except for a single T-Zn exceedance (0.0373 mg/L) January 6. The concentration of Zn was <0.010 mg/L on the days before and after this date. The source of elevated Zn is attributed to TSS because although the TSS level was low (1.5 mg/L), the dissolved Zn concentration was 0.0072 mg/L, well below the value reported for total zinc. Analytical water quality data and field pH measurements for RSEM R6 East pond stations are summarized in Table 3-23 and trends in water quality are illustrated in Figure 3-22 through Figure 3-26.

RSEM Area R6 West Catchment

Results for RSEM R6 West sediment control pond stations are summarized in Table 3-24 and water quality trends are illustrated in Figure 3-27 through Figure 3-31. The 2021 monitoring data indicate that the RSEM R6 West sediment control pond water and EOP discharges were circum-neutral to slightly alkaline, with sulphate concentrations up to 437 mg/L. All analytical samples and *in situ* field measurements met RSEM EOP limits except for Zn for several days in late November and again from mid-December through to the end of the year. A single TSS result (0.0291 mg/L) report for the March 5 sample was slightly above the RSEM EOP limit. However, the TSS concentrations on March 4 and 6 were below the limit, therefore the March 5 result is considered to have met the RSEM EOP TSS limit for clear flow conditions on the Peace River based on the screening approach where TSS remains elevated for more than 24 hours.

Table 3-23:
RSEM R6 East and West Pond 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		-	6.0-9.0	-	-	WQG	-	0.00029	0.55	0.011	0.033
RSEM-R6E-SP-US (n=2 lab, 7 field)	Max	8.06	8.5	1,170	2,600	2,210	196	0.00433	0.0611	0.123	0.742
	Min	7.33	8.0	1,020	654	9.2	186	0.000049	0.00191	0.00141	0.0072
	Median	7.70	8.2	1,095	880	1,110	191	0.00219	0.0315	0.0622	0.375
RSEM-R6E-EP-US-SD (n=3 lab, 169 field)	Max	8.38	9.0	1,780	8,340	19,300	420	0.0245	0.318	0.662	2.92
	Min	7.63	7.5	632	313	29.1	128	0.000017	0.00044	0.00089	<0.005
	Median	7.67	8.3	784	807	1,720	146	0.000865	0.0162	0.0353	0.149
RSEM-R6E-SP (n=48 lab, 67 field)	Max	8.43	9.4	1,150	1,480	4.3	253	0.000066	0.00085	0.00466	0.0318
	Min	6.70	7.0	444	474	<1	71	0.000008	0.00016	0.00070	0.0042
	Median	7.60	8.0	913	969	1.5	168	0.000010	0.00020	0.00112	0.0050
RSEM-R6E-EOP (n=289 lab, 291 field)	Max	8.41	8.7	1,310	2,350	15.6	248	0.000080	0.00226	0.00265	0.0373
	Min	6.79	7.1	523	112	<0.96	78	<0.00001	<0.0002	<0.0005	0.0035
	Median	8.07	8.2	746	846	1.2	127	0.000013	0.00026	0.00093	0.0050
RSEM-R6-WP-C (n=1 lab, 0 field)	Max	6.90	-	1,150	-	2.8	281	0.0000132	0.00019	0.00186	0.0893
	Min										
	Median										
RSEM-R6-WP-E (n=1 lab, 0 field)	Max	7.10	-	877	-	3.1	203	0.0000341	0.00034	0.00149	0.0724
	Min										
	Median										
RSEM-R6W-SP (n=6 lab, 8 field)	Max	8.18	8.8	1,360	1,577	12.1	428	0.000035	0.00078	0.00265	0.0405
	Min	7.84	7.4	600	525	2.3	135	<0.00001	0.0002	0.00117	0.0053
	Median	8.02	8.2	937	869	5.3	210	0.000023	0.00039	0.00146	0.0284
RSEM-R6W-EOP (n=343 lab, 340 field)	Max	8.45	8.9	1,380	1,588	29.1	437	0.000066	0.00115	0.00298	0.0723
	Min	6.69	6.8	407	216	<1	60	<0.00001	<0.0002	<0.0005	<0.005
	Median	8.08	8.2	662	696	3.8	162	0.000010	0.00026	0.00083	0.0050

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharge (-EOP samples).
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Water quality for stations RSEM-R6E-EOP and RSEM-R6W-EOP is screened against RSEM EOP limits. ***Gold italics*** indicate exceedance of an RSEM EOP limit.

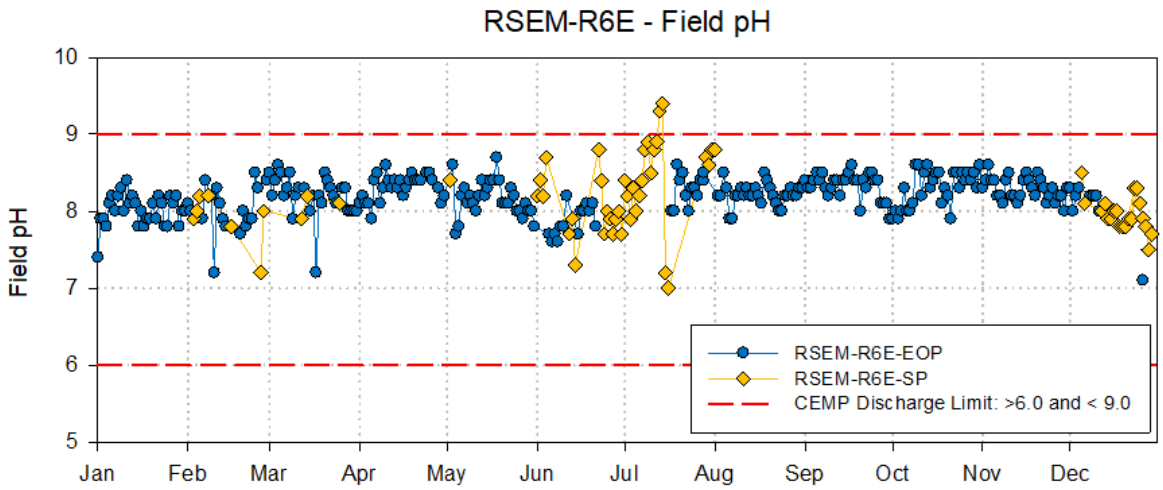

Figure 3-22: Time series profile for 2021 - field pH in RSEM-R6 East compared to RSEM EOP Limits. EOP – End of Pipe; SP – Sediment Pond.

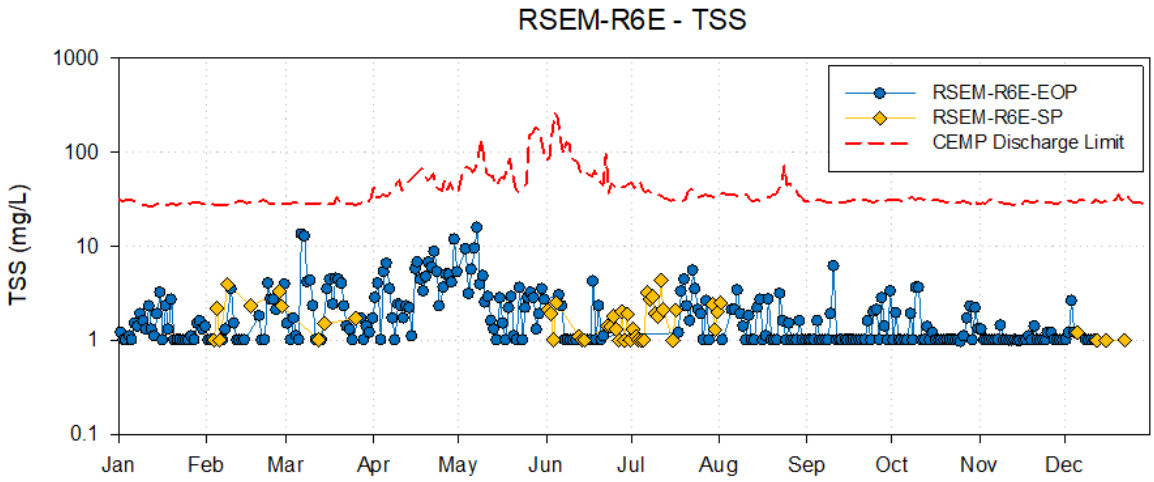

Figure 3-23: Time series profile for 2021 - total suspended solids (TSS) in RSEM-R6 East compared to RSEM EOP Limits. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP - Sediment Pond.

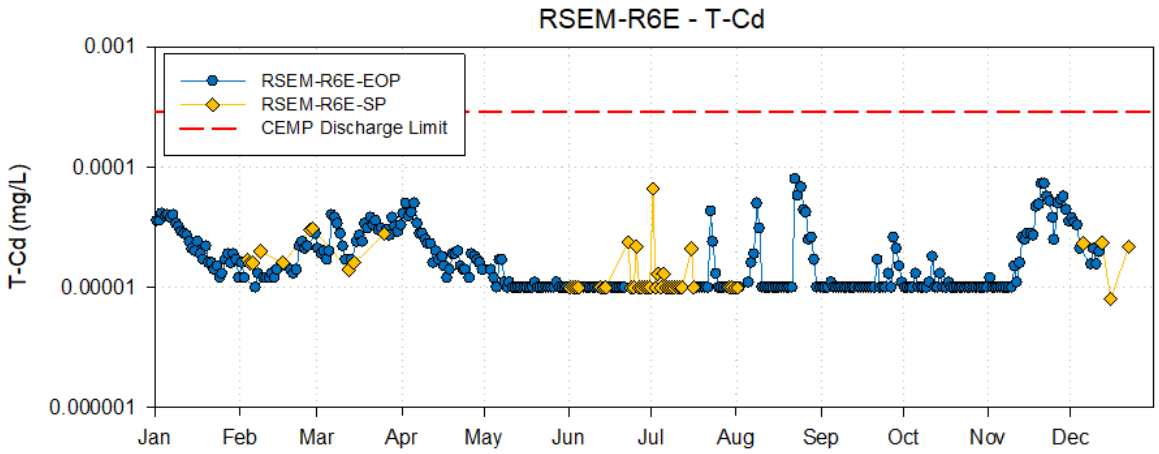

Figure 3-24: Time series profile for 2021 - total cadmium (T-Cd) for RSEM-R6 East compared to RSEM EOP Limits. T-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

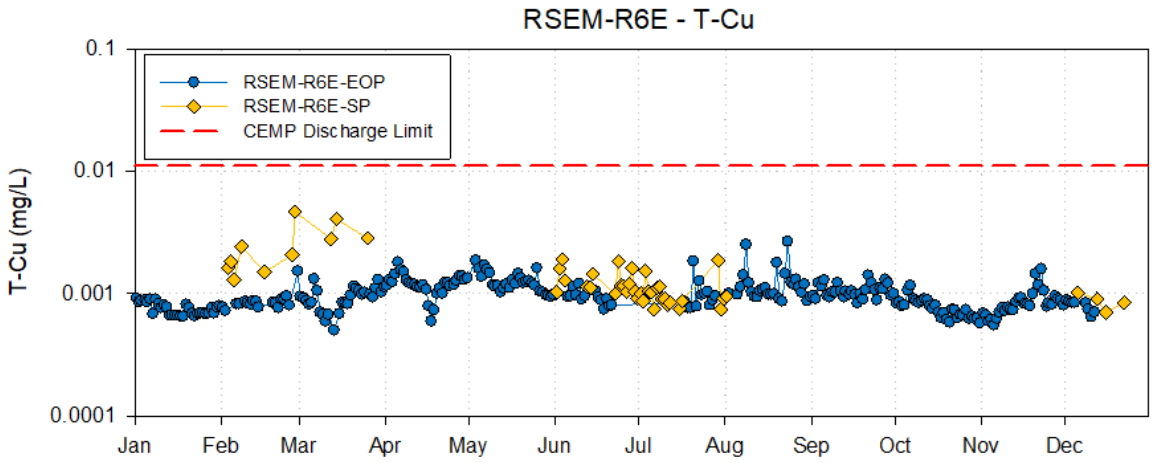

Figure 3-25: Time series profile for 2021 - total copper (T-Cu) for RSEM-R6 East compared to RSEM EOP Limits. T-Cu is plotted on a logarithmic scale.EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

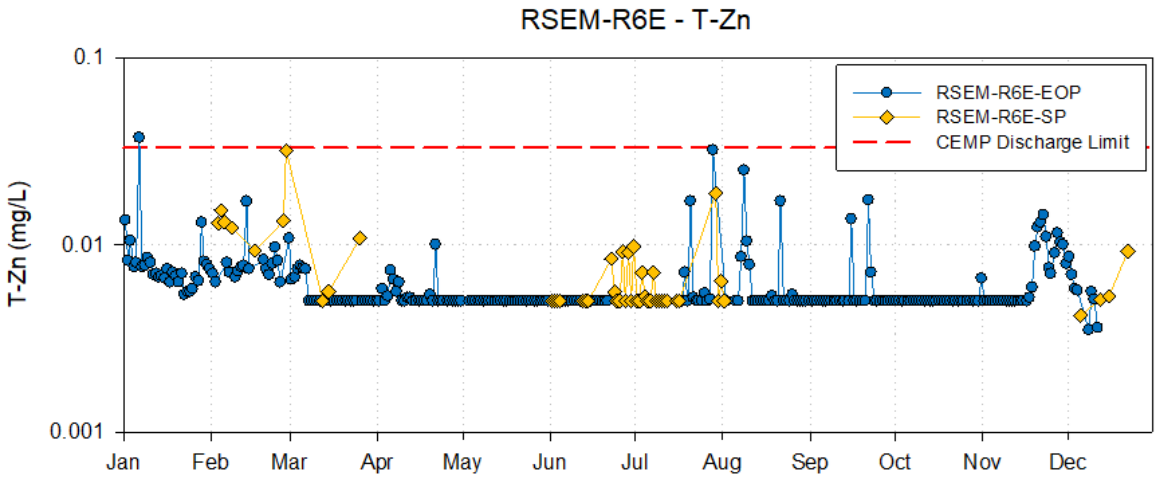

Figure 3-26: Time series profile for 2021 – total zinc (T-Zn) for RSEM-R6 East compared to RSEM EOP Limits. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

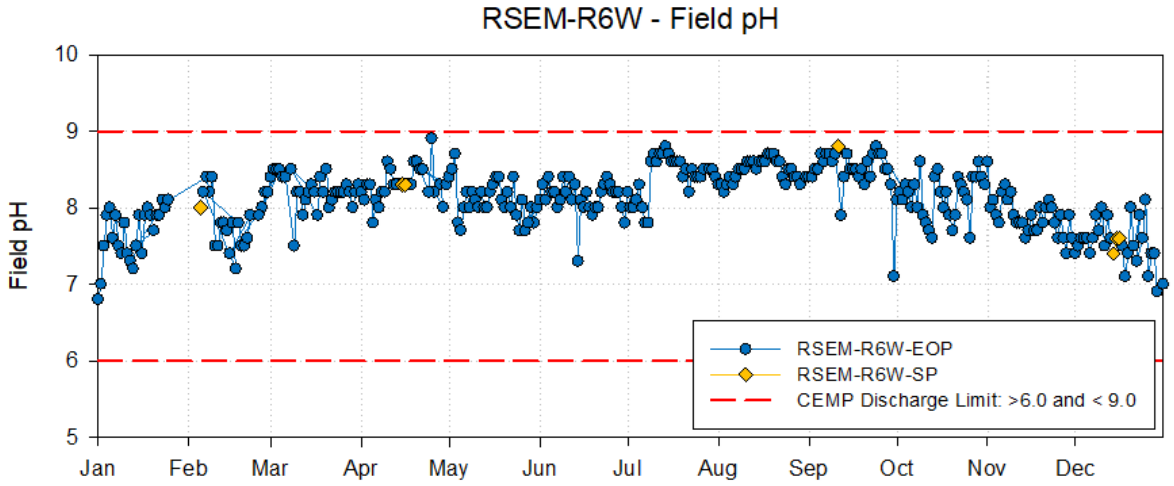

Figure 3-27: Time series profile for 2021 - field pH in RSEM-R6 West compared to RSEM EOP Limits. EOP – End of Pipe; SP – Sediment Pond.

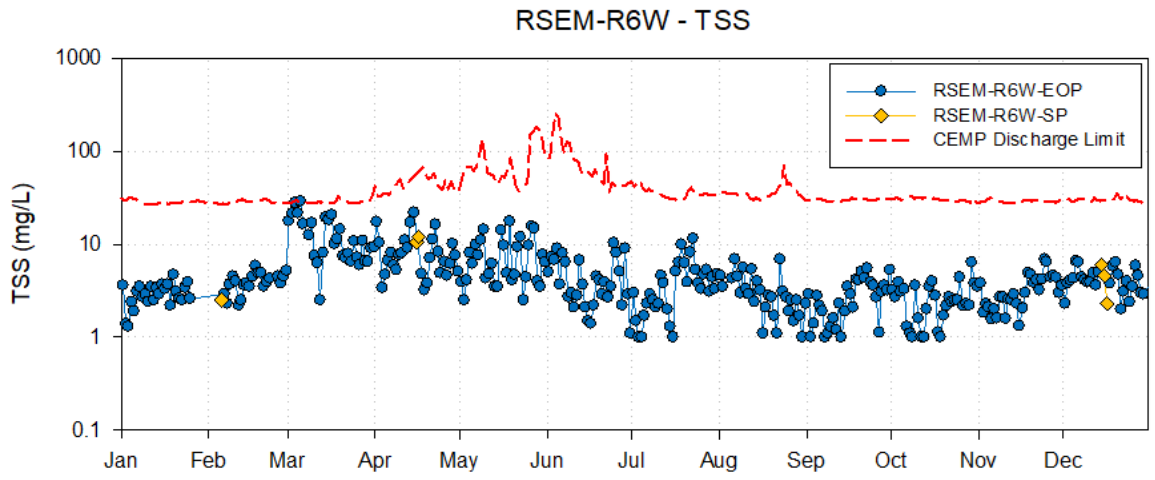

Figure 3-28: Time series profile for 2021 - total suspended solids (TSS) in RSEM-R6 West compared to RSEM EOP Limits. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP- Sediment Pond.

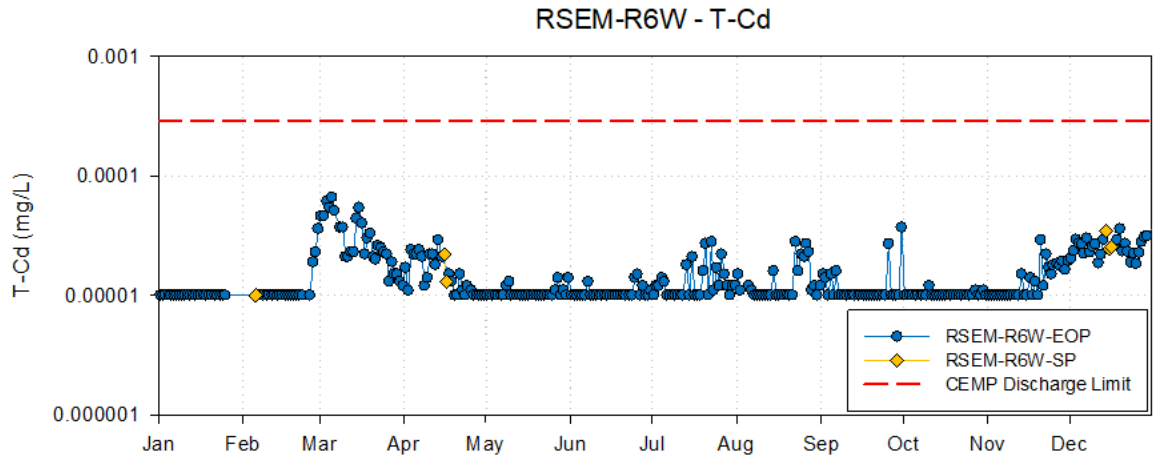

Figure 3-29: Time series profile for 2021 – total cadmium (T-Cd) for RSEM-R6 West compared to RSEM EOP Limits. T-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

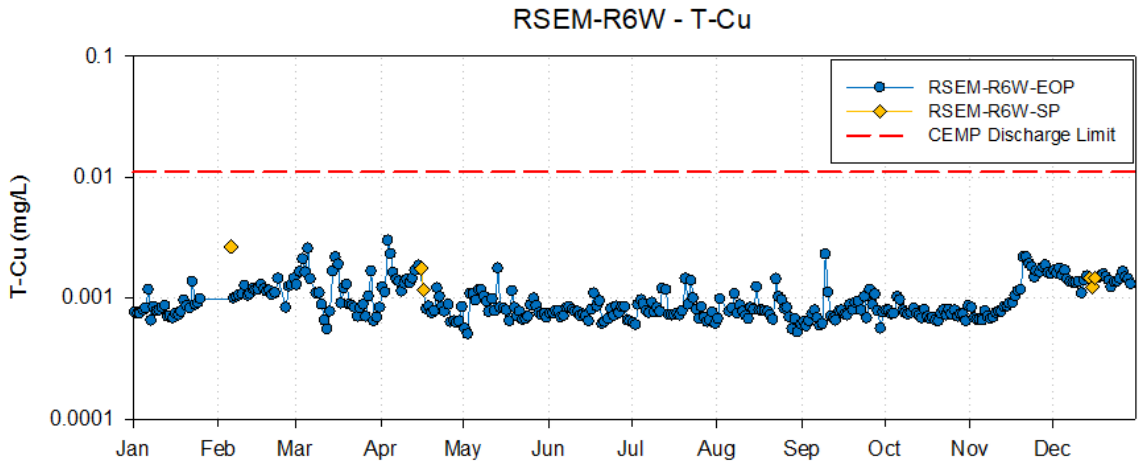

Figure 3-30: Time series profile for 2021 – total copper (T-Cu) for RSEM-R6 West compared to RSEM EOP Limits. T-Cu is plotted on a logarithmic scale. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

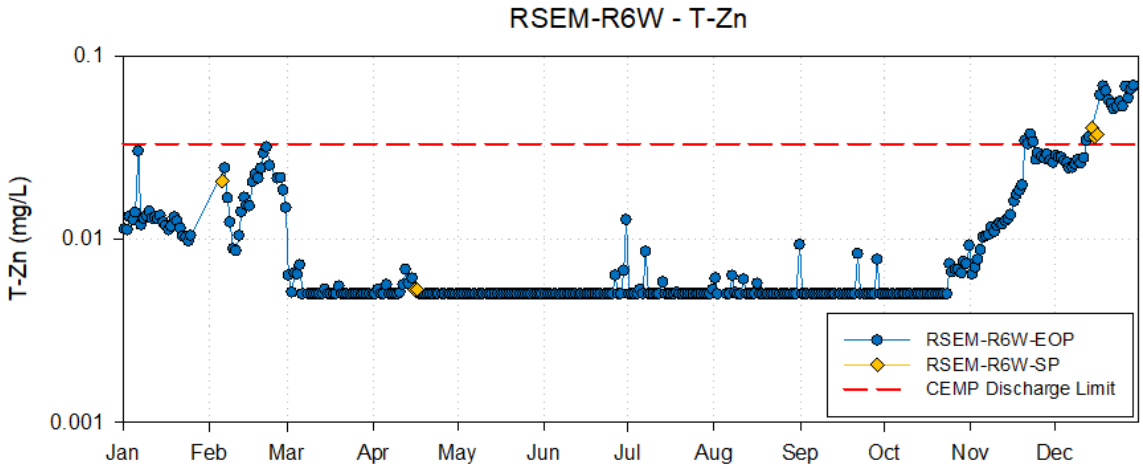

Figure 3-31: Time series profile for 2021 – total zinc (T-Zn) for RSEM-R6 West compared to RSEM EOP Limits. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

The exceedances observed for Zn are attributed to soluble Zn released from the zinc plated corrugated steel culvert that is in contact with MWTF treated effluent that flows to RSEM R6 pond. Although T-Zn is typically below the detection limit (<0.005 mg/L) from March through October, elevated Zn concentrations relative to the ice-free period were observed in February and mid-November through December. These elevated concentrations were observed to begin and continue to increase during winter freezing conditions when runoff inflows to the RSEM R6 pond were reduced, and the only significant inflows were from the MWTF. Additional in-pond samples were collected in late December at RSEM-R6-

WP-C (pond centre) and RSEM-R6-WP-E (pond eastern end) as part of a root cause investigation for Zn sources. The results indicate an increasing Zn concentration gradient from near the discharge pipe towards the western inlet of the R6 West sediment control pond.

3.2.4.7 RSEM Area R5A Sediment Control Ponds

Construction of the RSEM Area R5A Phase 2 sediment control ponds and spillways was completed in the latter half of 2020, and the ponds have been used to manage water in the RSEM R5A Phase 2 catchment since 2020 Q3. Two ponds (A and B) receive runoff from the southeastern RSEM area, whereas surface flows from the northwestern extent are directed to ponds C and D. The paired ponds are separated by a berm, have separate discharge pipes and share a rip-rap lined outfall that extends to the mainstem of the Peace River. For each RSEM R5A pond, water quality monitoring stations are located in-pond (the SP station) and at EOP.

Site reports indicate that RSEM R5A Phase 2 ponds' water levels remained low to moderate and did not discharge in 2021. Ice excavated from the Isolation Zone was placed in RSEM Area R5A in January for temporary storage until melted by warmer temperatures. Sondes were installed in Pond C and Pond D on May 12 and subsequently removed when pond water levels were low. The sonde in Pond D was reinstalled on June 14 and again August 25 following heavy rains that led to the accumulation of runoff in Pond D at this time. In August, the RSEM Pond water was managed by pumping serially from RSEM R5A pond A to pond D for storage and monitoring. In August, the RSEM R5A pond water was pumped serially from pond A to pond D starting on August 25 to August 27. Field measurements were collected every few days to every few weeks at each pond when there was sufficient water for monitoring, primarily during Q2 and Q3 of 2021.Analytical samples was collected from all ponds in May and from Pond D on August 26.

The water quality in the RSEM R5A ponds was alkaline Table 3-24 with moderate conductivity, though at times elevated up to 8,640 µS/cm in Pond D. The maximum concentration for sulphate was 690 mg/L in pond D and TSS was low (< 15mg/L) in all analytical samples. Field pH, TSS and metals concentrations were below RSEM EOP discharge limits. However, the ponds did not discharge in 2021.

Table 3-24:
RSEM R5A Phase 2 Pond 2021 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		-	-	µS/cm	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5A-P2-A-SP (n=1 lab, 27 field)	Max	8.22	8.7	632	1,952	5.2	204	0.000015	<0.0002	0.00062	<0.005
	Min		7.3		159						
	Median		8.3		766						
RSEM-R5A-P2-B-SP; (n=1 lab, 26 field)	Max	8.24	8.9	611	2,330	5.9	192	0.000019	0.00026	0.00122	<0.005
	Min		8.0		65						
	Median		8.4		946						
RSEM-R5A-P2-C-SP (n=2 lab, 36 field)	Max	8.31	8.9	677	2,050	19	199	0.000051	0.00079	0.00256	0.0067
	Min	8.22	7.6	668	119	8.4	190	0.000035	0.00039	0.00141	<0.005
	Median	8.27	8.4	673	707	14	195	0.000043	0.00059	0.00199	0.0059
RSEM-R5A-P2-D-SP (n=3 lab, 60 field)	Max	8.36	9.0	1,560	8,640	10	690	0.000084	0.00212	0.00173	<0.005
	Min	7.05	7.8	629	172	6.3	187	0.000014	<0.0002	0.00102	<0.005
	Median	8.25	8.4	645	1,030	7	193	0.000017	0.00022	0.00107	0.005

Notes: TSS = Total suspended solids.

3.2.5 Quality Assurance and Quality Control

A quality assurance / quality control (QA/QC) program has been developed and implemented for ARD/ML-related surface water quality monitoring for PRHP's Main Civil Works contract. It is intended to validate monitoring data and to identify potential deficiencies of the monitoring program.

QA/QC practices are conducted at various stages of sample collection through to analytical testing. Validated-clean sample bottles and preservatives are received from the analytical laboratory, and are stored in a controlled, clean environment prior to use. Calibration of field equipment (*i.e.,* hand-held and continuous data loggers) is regularly conducted using fresh calibration standards to ensure accurate *in situ* field readings.

Collection of field quality control (QC) samples including field blanks allows for evaluation of potential contamination from the sample collection method, handling, filtration, preservation and exposure to the environment. Additionally, field duplicates are collected as independent samples to characterize environmental variability and the precision of the entire sampling and analytical process. The field QA/QC program is described in Appendix 3-E and indicates the general industry practice for field QC samples (*e.g.,* field blanks and duplicates) is that they constitute 10% of the samples collected (*i.e.,* one field QC sample per ten monitoring samples). However, the actual field QC frequency

may vary due to the quantity of monitoring samples included with each sampling event or other considerations (BC ENV, 2013).

For 2021, a total of 216 QC samples were obtained (109 blanks and 107 duplicates) and 1364 monitoring samples were collected as part of the PRHP ARD water quality monitoring program. QC samples therefore represented approximately 16% of the monitoring samples collected, indicating the 2021 field QC program was more robustly implemented than the general industry practice. MWTF monitoring samples (n=146) collected by Ensero throughout 2021 are also included in the QA/QC assessment as applicable (*i.e.,* for detection limit screening, evaluation of hold time exceedances and comparison of total versus dissolved metals). No blank or field duplicate samples were reported for the Ensero monitoring program.

Due to a cyberattack November 20, the BV server was taken off-line and the lab was unable to process samples. Hence, samples collected from November 25 through December 31 were directed to ALS Environmental (ALS). During 2021, water quality samples were submitted to the BV and ALS depots in Fort St. John and were tested at the BV laboratories in Burnaby and Calgary and at ALS Environmental (ALS) in Burnaby. The BV labs use test methods accredited to the ISO 17025 standard for testing and calibration laboratories by the Standards Council of Canada (SCC). The Scope of Accreditation for the Burnaby and Calgary laboratories are included in Appendix 3-F and Appendix 3-G. The ALS test methods are accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA; Appendix 3-H). Both BV and ALS are listed as qualified laboratories under the British Columbia Environmental Data Quality Assurance Regulation (EDQA).

Once samples are submitted to BV and ALS, internal laboratory QC procedures are performed, which include analysis of method blanks, blank spikes, matrix spikes, reference standards and method duplicates at a minimum frequency for each analytical batch (*i.e.,* 1/20 samples; Appendix 2-A and Appendix 3-I). Results from these QC samples are not discussed in this report; however, the data quality objectives for laboratory QC samples outlined in Appendix 2-A and Appendix 3-I need to be met by the analytical laboratory before a final report is issued.

Laboratory reporting involves screening of water quality data against RSEM EOP limits and discharge exceedances to flag results where applicable. This approach has been useful to ensure rapid detection of potential exceedances in site or discharged water, and to trigger root cause investigation and regulatory notification processes.

A secondary data import screening system is applied on a weekly basis when laboratory data are transferred by Lorax into an EQWIN database. The following QC flags are included in the data transfer files, which are imported into the EQWIN database:

- Dissolved metals measurably higher than totals;
- Nitrite higher than nitrate;
- Calculated charge balance greater than 10%;
- Hold time exceedances; and
- Raised detection limits.

The occurrence of any of these flags prompts further action for closer review of the results or reanalysis of the samples. The EQWIN database is updated with all laboratory revisions to previously reported data if data revisions are issued by BV.

As an additional quality control evaluation for field parameters, *in situ* field measurements collected by hand-held instrumentation and continuous in-pond data loggers are compared to corresponding laboratory analytical data on a weekly and quarterly basis.

The following sections include an evaluation of sample receipt temperatures, detection limits and hold time exceedances, and results for field blanks, field duplicates, total versus dissolved metals, *in situ* field measurements and *in situ* continuous in-pond measurements.

3.2.5.1 Sample Receipt Temperature Monitoring

Sample temperature is one of the factors which influence the stability of parameters to be tested, particularly for parameters for which chemical preservation is not possible. Therefore, environmental staff collect and store samples in coolers with icepacks and submit samples to the BV and ALS service depots in Fort St. John on the same day they are collected. The BV and ALS depots are open during regular business hours (Monday to Friday) and also offer a 24 hour secure drop-off service. The depots are an extension of the respective laboratories and assume custody of the samples upon receipt. After hour sample submissions are processed (*i.e.,* received) on the next business day. Sample temperature is measured upon receipt and the BV and ALS depots ensure received samples are stored in accordance with the temperature requirements set out by BC ENV (2013, 2020). For parameters included in the ARD water quality monitoring program, the optimal sample temperature range during shipping and upon receipt is between 0 to 10 °C, with the exception of total and dissolved metals which do not have a specified temperature requirement (BC ENV; 2013, 2020).

Review of the sample submission records indicate samples were appropriately packaged for submission to the laboratory and that icepacks were used for cooling, with few exceptions. Throughout 2021, 359 sample submissions were made to the BV and ALS service depots. Of the submissions, 305 (85%) met the sample temperature requirements, 9 (2%) had no temperature records and 45 (13%) were received with sample temperatures

outside the optimal range. For the majority of instances where sample receipt temperatures were >10°C, temperatures were comparable to or lower than the temperature recorded during sample collection.

Overall, the records indicate appropriate sample shipment protocols were followed, and therefore sample integrity is not considered to have been compromised between sample collection and receipt by the laboratory. However, considering the elevated ambient water temperatures observed in May through September it is recommended that additional measures be implemented to accelerate and maintain sample cooling during warmer periods. This may include the use of additional ice packs, or refrigeration, in particular for after hour sample submissions which are not received into laboratory custody until the next regular business day.

3.2.5.2 Detection Limit Screening

For this project, the detection limits for reported results are compared to the standard detection limits for the BV lab. Detection limits are increased, for example, when a sample is diluted prior to analysis to eliminate interferences or to reduce a parameter concentration to within the instrument working range. The QA/QC evaluation included (1) an assessment of the frequency for raised detection limits in 2021 samples; and (2) screening to determine which parameters are most influenced by this occurrence.

During 2021 the percentage of parameters with raised detection limits increased from Q1 to Q3 (1.9% to 7.9%, respectively, Table 3-25) and there were several instances of non-detect results reported with detection limits above the RSEM EOP limit for Zn. Following reanalysis, the revised results were reported with lower detection limits. After further investigation, BV modified their internal lab procedures to reduce the frequency and magnitude of detection limit changes, specifically for total and dissolved metals. Additionally, screening for detection limit changes was added to the QA/QC program in September. In Q4, detection limits were raised for 2.1% of all parameters, similar to the rate of changes observed in Q1, and indicating the lab implemented corrective actions were effective.

Table 3-25:
Summary of Laboratory Detection Limit Changes in 2021.

Quarter	# Parameters with raised DLs	Total # parameters	% Parameters with Raised DLs
Q1	419	22,605	1.9
Q2	1,069	31,130	3.4
Q3	3,799	48,123	7.9
Q4	626	29,325	2.1

The parameters with detection limits changes are summarized in Table 3-26. Detection limits were most frequently increased for sulphate and nitrate. The reported concentrations were above detection limit values. For the remaining parameters, detection limits were raised in less than 5% of samples. For the 2021 period, there were no parameters for which a non-detect result with a raised detection limit exceeded the RSEM EOP discharge limits. Overall, the detection limit changes do not affect the interpretation of non-detect results.

Table 3-26:
Number and Percentage of Samples Showing Raised Detection Limits per Parameter in 2021.

Parameter or Grouping of Parameters	Number of Samples with Raised Detection Limits/Parameter	Total Number of Samples/ Parameter	% Samples with Raised Detection Limits
Turbidity	10	1577	0.63%
TDS	27	1459	1.9%
TSS	83	1723	4.8%
DOC	15	1390	1.1%
TOC	59	1392	4.2%
Sulphate	461	1397	33%
Nitrate	305	1394	22%
Ammonia	5	1392	0.36%
Anions (Br, Cl, F)*	45	1394	3.2%
Dissolved Metals*	51	1489	3.4%
Total Metals*	68	1483	4.6%

Notes:*Median values presented for anions and metals analysis

3.2.5.3 Hold Time Exceedances

PRHP makes every effort to have samples delivered to BV and ALS within recommended hold times, and in 2021 all samples met this criterion. Once delivered to the BV and ALS service depots, samples enter a queue for processing and analysis, and are sometimes analyzed outside of recommended hold times (*e.g.*, usually by one to four days). For 2021, the parameters most commonly analyzed by the laboratory outside the recommended hold times were turbidity (86 samples), TDS (108 samples). TSS (92 samples), nitrite (154 samples), nitrate (57 samples), nitrite-nitrate (144 samples), orthophosphate (90 samples). Analysis of these parameters exceeded the respective hold times by an average of 2 to 5 days, which does not mean that the sample is compromised but may increase the uncertainty of sample results.

Field measurement of pH is required within 15 minutes of sample collection (BC ENV, 2020). Analytical laboratory measurements of pH do not meet this requirement due to

shipping constraints; therefore analytical measurements are used for reference only. Field pH measurements are considered to best represent pH of the water at the time of sampling. Comparison of analytical and field pH measurements indicates analytical measurements are often biased low relative to the field values. It is speculated this may be due to carbon dioxide dissolution during transport and handing at the lab, which would reduce pH.

3.2.5.4 Field Blanks

A total of 109 field blanks were collected as part of the 2021 surface water quality monitoring program (Appendix 3-D). These data indicate good overall contamination control, with the majority of parameter values (~98%, not including pH, which is always detectable) in blank samples falling below the laboratory reported detection limit (RDL) as shown in Table 3-27. In total, 35 parameter values out of the 9,678 measured (*i.e.,* <0.4%) were greater than the data quality objective (DQO) of 2-times the RDL. The proportion of parameters exceeding the DQO ranged from 0.2% to 0.6% per quarter.

Overall, ammonia was most frequently outside the field blank DQO (Table 3-27). This anomaly may result from contributions associated with sampling supplies (*e.g.,* deionized water used for blanks, laboratory bottles, preservation reagents, gloves), the sampling procedure, or from sources at the laboratory. In general, these measurements do not alter the interpretation of environmental monitoring data and suggest good control of potential contamination sources to the water samples.

Table 3-27:
Comparison of number and type of detected parameters in field blanks in 2021

Quarter	Number of Field Blanks Collected	Number of Parameters Analyzed in Field Blanks	Number of Detected Parameters > RDL	Number of Detected Parameters > 2x RDL	Parameters with Detected Values > 2x RDL (Number of Times)
1	31	2,820	37	5	NH_3-N (5)
2	27	2,457	65	15	Turbidity (1), TDS (1), NH_3-N (9), NO_3-N (1), NO_2-NO_3 (1) Br (1), T-Ni (1)
3	24	2,183	71	11	Turbidity (1), NH_3-N (2), T-hardness (1), T-Al (2), T-Ca (1), T-Fe (1), T-Na (1), T-Sr (1), T-Zn (1)
4	27	2,218	35	4	HCO_3 (1), TOC (1), DOC (1), T-Ni (1)

Notes: RDL- Reported Detection Limit.

3.2.5.5 Field Duplicates

A total of 107 field duplicates were collected as part of the 2021 surface water quality sampling program (Appendix 3-C). In general, water quality results were similar between field duplicates. Table 3-28 shows the number of duplicates containing parameters with Relative Percent Difference (RPD) values greater than the acceptability criteria of 20% and 50% (calculated only if the reported parameter value was greater than five-times the RDL in at least one of the sample duplicates). Overall, the relative proportion of analyte pairs with RPDs greater than 50% was low throughout the program, ranging from 0.4% to 0.6%. Ammonia overall shows the greatest variability between samples (inferred from multiple instances of RPD values greater than 50%).

Of the parameters for which RSEM EOP discharge limits are approved (Cd, Co, Cu, TSS, Zn, and pH), two duplicate pairs for TSS showed RPD values greater than 50% in 2021 (Table 3-29). Only the TSS level in the RSEM-R6E-EOP duplicate sample collected on October 26 was above the RSEM EOP limit. However, the TSS concentration was below the limit on October 25 and 27, and as described in Section 3.2.1, during clear-flow conditions two consecutive daily measurements above the TSS limit are required to trigger an exceedance, therefore the October 26 result is not considered an exceedance. The discrepancy between monitoring and duplicate samples reflects sample variability over the course of the monitoring program and may also be influenced by contamination (as previously noted in field blanks) and imprecision in laboratory measurements. Importantly, such variability is infrequent and is not expected to alter the overall interpretation of the data.

Table 3-28:
Comparison of Duplicate and Parameter Counts with RPDs Greater Than 20% and 50% by Quarter

Quarter	Total Number of Duplicates	Total Number of Parameters Analyzed in Duplicates	Number of Parameters with RPD > 20%	Number of Parameters with RPD > 50%
1	31	2,882	26	11
2	27	2,457	42	10
3	24	2,160	47	13
4	25	2,260	40	8

Notes: RPD- Relative Percent Difference

Table 3-29:
Summary of Field Duplicate RPDs Greater than 50%.

Station Code	Collection Date	Lab ID (Sample)	Lab ID (Duplicate)	Parameter	Units	Concentration			RPD %
						RDL	Sample	Duplicate	
RSEM-R6E-EOP	28-Jan-21	ZF8627	ZF8628	N-NH3	mg/L	0.015	0.03	0.124	122
RSEM-R6W-EOP	07-Feb-21	ZH3207	ZH3208	N-NH3	mg/L	0.015	0.334	0.085	119
RSEM-R6W-EOP	18-Feb-21	ZI6453	ZI6454	N-NH3	mg/L	0.015	0.061	0.206	109
RSEM-R6W-EOP	26-Feb-21	ZJ8521	ZJ8522	N-NH3	mg/L	0.015	0.052	0.235	128
RSEM-R6W-EOP	06-Mar-21	ZL3536	ZL3534	Br	mg/L	0.01	0.196	0.403	69
				T-Ti	mg/L	0.005	0.0172	0.0341	66
RSEM-R6W-EOP	11-Mar-21	ZL8466	ZL8467	N-NH3	mg/L	0.015	0.035	0.097	94
RSEM-R6W-EOP	13-Mar-21	ZM2419	ZM2420	N-NH3	mg/L	0.015	0.043	0.098	78
RSEM-R6E-EOP	15-Mar-21	ZM4113	ZM4114	N-NH3	mg/L	0.015	0.055	0.124	77
RSEM-R6E-EOP	17-Mar-21	ZM7317	ZM7318	N-NH3	mg/L	0.015	0.105	0.057	59
RSEM-R6W-EOP	25-Mar-21	ZN6325	ZN6323	TSS	mg/L	1	7.2	12.1	51
RSEM-R6E-EOP	05-Apr-21	ZO7516	ZO7517	T-Zr	mg/L	0.0001	0.00032	0.00079	85
RSEM-R6E-EOP	11-Apr-21	ZP3856	ZP3857	NH_3-N	mg/L	0.015	0.127	0.22	54
RSEM-R6W-EOP	02-May-21	ZS6044	ZS6046	NH_3-N	mg/L	0.015	0.527	0.188	95
		ZS6044	ZS6046	T-Cr	mg/L	0.001	0.0138	0.0039	112
		ZS6044	ZS6046	T-Mo	mg/L	0.001	0.02	0.0087	79
		ZS6044	ZS6046	T-Ni	mg/L	0.001	0.0571	0.0133	124
RSEM-R6E-EOP	13-May-21	ZU4935	ZU4936	DOC	mg/L	0.5	1.41	2.93	70
		ZU4935	ZU4936	NH_3-N	mg/L	0.015	0.022	0.133	143
RSEM-R6E-EOP	09-Jun-21	ZY6852	ZY6853	NH_3-N	mg/L	0.015	0.22	0.367	50
RSEM-R6W-EOP	13-Jun-21	ZZ1994	ZZ1995	T-Zr	mg/L	0.0001	0.0003	0.00087	97
RSEM-L5E-P2-EOP	14-Jul-21	ABX612	ABX613	T-Fe	mg/L	0.01	0.071	0.201	96
RSEM-R6W-EOP	18-Jul-21	ACC416	ACC417	D-Al	mg/L	0.003	0.687	0.155	126
				D-Fe	mg/L	0.01	0.218	0.068	105
				D-Mn	mg/L	0.001	0.0078	0.0046	52
				D-Zr	mg/L	0.0001	0.00051	0.00021	83
RSEM-R6E-EOP	20-Jul-21	ACH813	ACH814	T-As	mg/L	0.0001	0.00054	0.00092	52
				T-Ni	mg/L	0.001	0.0079	0.0025	104
RSEM-R6E-EOP	05-Sep-21	AFI819	AFI820	D-S	mg/L	3	28.3	49.1	54
RSEM-R6E-EOP	16-Sep-21	AGG327	AGG328	D-Se	mg/L	0.0001	0.00115	0.00064	57
RSEM-R6E-EOP	22-Sep-21	AGR063	AGR064	Turbidity	NTU	0.1	2.1	3.7	55
				T-Al	mg/L	0.003	0.0672	0.145	73
				T-Fe	mg/L	0.01	0.074	0.279	116
				T-Mn	mg/L	0.001	0.0046	0.019	122
RSEM-R6E-EOP	5-Oct-21	AHO714	AHO715	T-As	mg/L	0.0001	0.00059	0.00025	81
				T-Mo	mg/L	0.001	0.0239	0.0047	134
RSEM-R6E-EOP	13-Oct-21	AIE373	AIE374	D-Na	mg/L	0.05	19.6	3.39	141
				D-S	mg/L	3	20.2	3	148
				D-Se	mg/L	0.0001	0.00067	0.00023	98
RSEM-R6E-EOP	26-Oct-21	AJF136	AJF137	Turbidity	NTU	0.1	2.9	24	157
				TSS	mg/L	1	1.1	42.3	190
RSEM-R6E-EOP	20-Nov-21	ALR014	ALR015	D-As	mg/L	0.0001	0.00046	0.0008	54

Notes:
RDL- Reported Detection Limit
RPD- Relative Percent Difference

3.2.5.6 Total versus Dissolved Metals

Total metals are field-acidified and undergo acid digestion at the lab, whereas dissolved metals are lab- or field-filtered prior to acidification of the filtrate. Dissolved and total metal pairs are evaluated for possible contamination during the filtration process. The dissolved and total metal subsamples are analogous to field duplicate samples. By definition, total metals analysis account for all dissolved and particulate-bound metals present in a sample; therefore, a dissolved metal concentration should not exceed the corresponding total metal concentration. In practice, due to measurement error, dissolved metal concentrations are occasionally reported greater than the corresponding total metal concentration. Therefore, field duplicate DQOs of 120% and 150% are applied to flag outlier and suspect data points, respectively.

Out of 42,729 total and dissolved parameter pairs compared in the 2021 dataset, 544 dissolved metal values, representing 1.3 % of the pairs, were more that 120% higher than the corresponding total metal concentrations (Table 3-30). This proportion was considerably higher in Q3 and Q4 (1.8%) compared to Q1 and Q2 (0.1% and 0.6%, respectively). Dissolved parameters which most frequently exceeded their total values were Al, S, Se and Sr. Notably, Se exceeded the DQO nearly two times more frequently than the other parameters.

For the present data evaluation, a second DQO of 150% was also used to identify parameters with the greatest magnitude of exceedances (Table 3-30). The proportion of dissolved parameters values that are greater then 150% of the total metal concentration is low in Q1 and Q2 (maximum of 0.05%) and increases 10-fold in Q3 and Q4 (maximum of 0.5%). In Q3, Al accounted for the majority of secondary DQO exceedances, and dissolved Al concentrations were at times above WQGs prompting investigation of laboratory practices with respect to sample preparation and analysis which may be contributing to contamination for dissolved metals. Following an internal observation audit, BV implemented a number of corrective actions which included hiring an additional analyst and modification of Clean Room protocols. The revised protocols were fully implemented by September 2nd as reported in Appendix 3-J. The frequency and magnitude of the dissolved metal concentrations greater than the corresponding total value was reduced in Q4, The QA/QC results indicate that corrective actions reduced the frequency and magnitude of the dissolved Al concentrations outside the DQO in Q4. However, the frequency of dissolved Se greater than 120% of the total value remained elevated in Q4 suggesting that further investigation specific to this parameter may be warranted.

Table 3-30:
Number of Sample Metal Pairs in 2020 for Which the Dissolved Concentration Exceeded the Total by 120% and 150%

Quarter	Total Number of Samples Collected	Number of Parameters with D>120% T	Number of Parameters with D>150% T
1	238	9	1
2	274	56	5
3	473	292	77
4	261	172	39

3.2.5.7 In Situ Field Measurements

In situ field measurements are typically collected with hand-held probes at the same location and time during which an analytical sample is collected (Appendix-3-B). These measurements are valuable for capturing the general chemistry of site water without potential artifacts that can be introduced during collection and transport of samples to the lab (*e.g.* CO_2 dissolution in the case of pH). In 2019, it was confirmed that *in situ* field pH values at EOP would be used to evaluate pH compliance with the RSEM EOP limit. This change to the monitoring practice was implemented because it is not possible to meet the 15-minute hold time for analytical pH measurements.

Comparison of *in situ* field data to laboratory analytical results collected during the same time period serves as an independent check of field measurements. An *in situ* field value that is measurably different than the analytical value may be indicative of variability due to specific environmental conditions that occur during the *in situ* field measurement, technical error with the hand-held logger, or potentially chemical changes that occur following sample collection.

In situ field data are generally consistent with corresponding analytical measurements. In Table 3-31, a positive median difference suggests that field measurements tended to be biased higher than analytical results, while a negative median difference suggests field measurements tended to be biased lower. The results indicate that pH shows a positive bias for field measurements relative to analytical results. By comparison, conductivity and turbidity values do not show a consistent bias across RSEM locations (Figure 3-32).

In 2021, *in situ* field pH at the sediment ponds are elevated by 0.05 to 0.91 units above analytical pH measurements (Table 3-31). This is consistent with increased dissolution of CO_2 and a subsequent decrease in sample pH observed in laboratory samples (relative to field pH) as a result of exposure to aerated conditions in a sample bottle prior to taking an analytical reading in the lab. This finding shows that *in situ* field measurements are particularly meaningful for evaluating pH compliance in alkaline waters, as an analytical

laboratory reading taken hours or days following sample collection might not capture an exceedance event.

Median *in situ* field conductivity and turbidity values show a difference of up to 13% and 123% relative to their respective analytical conductivity and turbidity measurements in the RSEM ponds. Turbidity measurements are generally more prone to variability; differences between *in situ* field measurements and analytical test results may be attributed to variability in suspended solid characteristics within the sample and differences in the analytical instrumentation used for testing. Overall, field and lab turbidity values are generally comparable indicating that the field turbidity measurements are suitable for informing TSS management decisions.

Table 3-31:
Comparison of 2021 Field and Analytical Measurements for pH, Conductivity and Turbidity

Station ID	Number of Samples					Annual Median Difference*	Annual Median Relative Percent Difference**
	Q1	Q2	Q3	Q4	Total		
pH						s.u.	%
RSEM-L5E-P2-SP	0	20	76	0	96	0.24	2.9
RSEM-L5W-P2-SP	0	13	51	0	64	0.16	1.9
RSEM-L6-SP	0	2	3	2	7	0.91	12
RSEM-R5A-P2-A/B/C/D-SP	0	6	1	0	7	0.050	1.9
RSEM-R6E-SP/EOP	87	87	88	73	335	0.22	3.1
RSEM-R6W-SP/EOP	77	89	87	91	344	0.16	3.6
Conductivity						µS/cm	%
RSEM-L5E-P2-SP	0	20	76	0	96	-50	5.5
RSEM-L5W-P2-SP	0	13	51	0	64	-25	5.3
RSEM-L6-SP	0	2	3	2	7	-21	5.8
RSEM-R5A-P2-D-SP	0	6	1	0	7	-45	6.4
RSEM-R6E-SP/EOP	87	87	88	73	335	47	13
RSEM-R6W-SP/EOP	77	89	87	91	344	39	7.5
Turbidity						NTU	%
RSEM-L5E-P2-SP	0	20	76	0	96	1.6	62
RSEM-L5W-P2-SP	0	13	51	0	64	0.4	37
RSEM-L6-SP	0	2	3	2	7	-0.40	123
RSEM-R5A-P2-D-SP	0	6	1	0	7	-0.7	12
RSEM-R6E-SP/EOP	87	87	88	73	335	3.3	23
RSEM-R6W-SP/EOP	77	89	87	91	344	0.96	33

Notes:
* Median difference between corresponding *in situ* field measurements (results reported by PRHP staff from hand-held data loggers) and analytical measurements. Difference was calculated by subtracting the analytical value from the *in situ* field value.
**Median absolute relative percent difference between corresponding *in situ* field and analytical measurements. Relative difference was calculated by dividing the difference between corresponding *in situ* field and analytical measurements, by the average of the corresponding *in situ* field and analytical measurements.

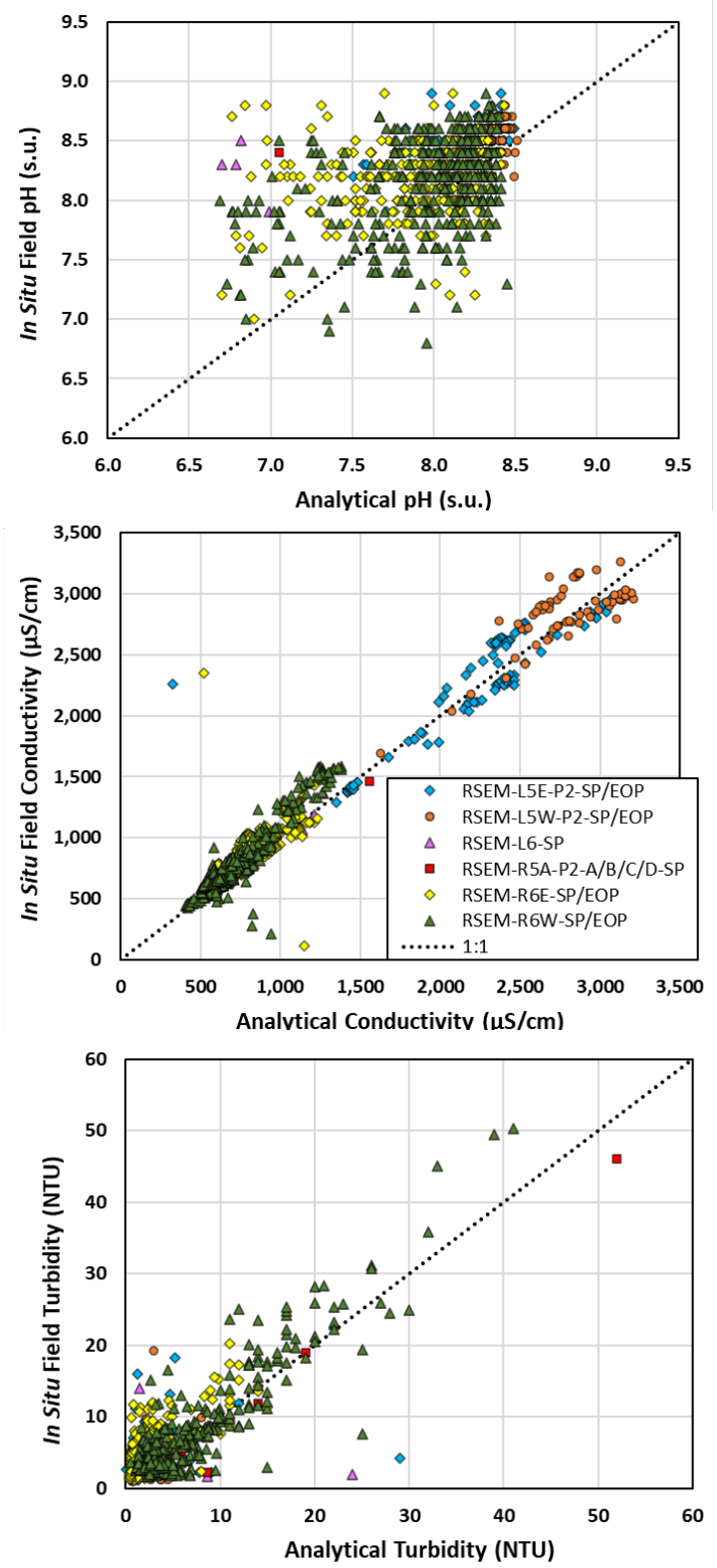

Figure 3-32: *In situ* Field versus Analytical Measurements for pH, Electrical Conductivity and Turbidity for 2021.

3.2.5.8 In Situ Sonde Measurements

In situ continuous sonde measurements for pH, conductivity and turbidity are monitored using a fixed in-pond sonde probe which regularly logs a data point every 15 minutes (Appendix 3-A). In comparison to *in situ* field measurements which are typically collected at the same location and time as an analytical end-of-pipe sample is collected, *in situ* sonde measurements are taken at a fixed point located approximately 5 to 10 metres from the discharge pipe inlet at a depth of approximately 0.3 m. The static deployment of the sonde can result in disagreement of water quality measurements compared to the end of pipe location due to spatial differences and potential temporal lags between the time that the sonde encounters a water plume to the time the clarified surface layer discharges through the end of pipe location.

As an independent check of sonde readings, sonde pH measurements are compared to field pH measurements that most closely correspond to the time period of collection. Field pH measurements rather than analytical pH measurements are used for comparison as they more accurately describe water quality EOP at the time of sampling (as described in the previous section). Sonde conductivity and turbidity measurements are compared to analytical results using the sonde readings that most closely correspond to the sample collection time recorded for an analytical sample.

Sonde pH measurements mostly show a positive bias relative to field pH measured in water quality samples (Table 3-32 and Figure 3-33). Across all sediment ponds, median sonde pH are up to 0.18 units above their field measurement counterparts. This suggests that sonde readings may slightly overestimate pH values at EOP. Sonde and analytical conductivity results generally align to a 1:1 relationship in all sediment ponds. In Figure 3-33 it is evident that some sonde conductivity readings for R6W fall below the 1:1 relationship, showing up to 12% median relative percent difference.

Sonde turbidity measurements in 2021 were variable showing a median relative percent difference ranging between 55% to 134% (Table 3-32). Sonde readings predominantly show a positive bias relative to analytical measurements, and a greater divergence from the 1:1 relationship at turbidity levels >40 mg/L. Elevated sonde turbidity readings may be associated with the sonde location, with sensors at approximately 0.3 m depth in the pond water column, upstream of the inlet to the discharge pipe. Only the surface layer of the pond passively spills into the discharge pipe, it is likely the surface layer has lower turbidity than deeper layers due to particle settling. The sonde probe is located within the interior of the pond and is more likely to detect sediment plumes which may extend to the sonde, but not to the discharge pipe intake. These findings suggest that sonde turbidity measurements are not a reliable indicator of turbidity in the pond discharge.

Table 3-32:
Comparison of 2021 *In Situ* Continuous and Analytical Measurements for pH, Conductivity and Turbidity

Station ID	Number of Samples					Annual Median Difference*	Annual Median Relative Percent Difference**
	Q1	Q2	Q3	Q4	Total		
pH						s.u.	%
RSEM-L5E-P2-SP	0	33	81	0	114	0.005	1.5
RSEM-L5W-P2-SP	0	21	75	0	96	0.16	2.0
RSEM-L6-SP	0	0	11	0	11	-0.11	1.7
RSEM-R5A-P2-A/B/C/D-SP	0	0	14	0	14	0.18	2.0
RSEM-R6E-SP/EOP	87	79	90	84	340	0.02	2.1
RSEM-R6W-SP/EOP	77	81	90	15	263	0.2	2.8
Conductivity						µS/cm	%
RSEM-L5E-P2-SP	0	13	71	0	84	-86	4.1
RSEM-L5W-P2-SP	0	7	53	0	60	77	3.7
RSEM-L6-SP	0	0	1	0	1	-25	2
RSEM-R5A-P2-A/B/C/D-SP	0	0	0	0	0	NA	NA
RSEM-R6E-SP/EOP	87	80	86	65	318	13	4.8
RSEM-R6W-SP/EOP	76	83	90	86	335	-76	12
Turbidity						NTU	%
RSEM-L5E-P2-SP	0	13	71	0	84	1.8	60
RSEM-L5W-P2-SP	0	7	53	0	60	8.2	134
RSEM-L6-SP	0	0	0	0	0	NA	NA
RSEM-R5A-P2-A/B/C/D-SP	0	0	0	0	0	NA	NA
RSEM-R6E-SP/EOP	87	75	77	65	304	1.4	76
RSEM-R6W-SP/EOP	76	83	90	86	335	2.0	55

Notes:
*Median difference between corresponding *in situ* continuous measurements and *in situ* field (pH) or analytical (conductivity and turbidity) measurements. Difference was calculated by subtracting the *in situ* field (pH) or analytical (conductivity and turbidity) measurements from the *in situ* continuous value.
**Median absolute relative percent difference between corresponding *in situ* continuous *in situ* field (pH) or analytical (conductivity and turbidity) measurements. Relative difference was calculated by dividing the difference between corresponding *in situ* continuous and *in situ* field (pH) or analytical (conductivity and turbidity) measurements, by the average of the corresponding *in situ* continuous and *in situ* field (pH) or analytical (conductivity and turbidity) measurements.

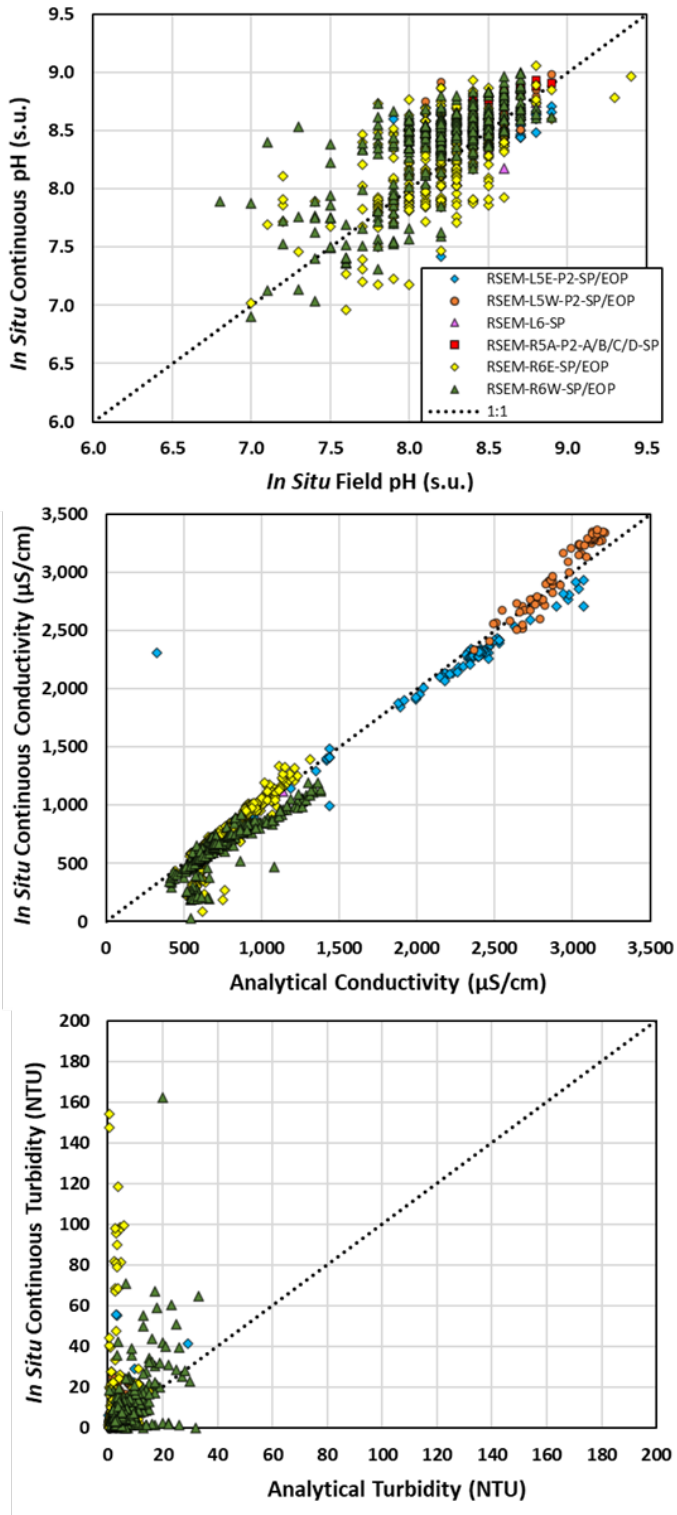

Figure 3-33: *In situ* sonde versus field measurements for pH, and sonde versus analytical measurements for electrical conductivity and turbidity for 2021. A measurement from RSEM-R6E-EOP (June 9th) is not plotted as it shows a very high sonde turbidity reading (327 NTU).

3.2.5.9 Conclusions

Overall, the QA/QC results for the 2021 sampling program provide confidence in the water quality data for analytical and field (hand-held and continuous) measurements. Minor issues associated with sample representativeness are noted but are not expected to measurably alter the interpretation of sampling data with some exceptions. In particular, there is uncertainty in Al concentrations and to a lesser extent Se concentrations reported in July and August. Corrective laboratory protocols were implemented in early September to address these issues. Turbidity measurements from *in situ* sondes were found to diverge from corresponding analytical end of pipe measurements. Therefore, EOP field turbidity measurements rather than *in situ* sonde readings are recommended for estimating TSS in discharges. Observations noted in the sections above will continue to be monitored and appropriate action will be taken to minimize sources of error during sampling and analysis.

4. Key Findings

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4. Key Findings

The purpose of this section is to provide additional information that is required by the BC Hydro ARD/ML Management Plan or has been specifically requested by BC Hydro. It includes the updated relationship between turbidity and TSS, an assessment of the onset of ARD/ML, a summary of mitigation measures that were employed in 2021, a ML/ARD risk evaluation, a summary of exceedances of project-specific discharge limits that occurred in 2021, and an estimation of metal loads discharged to the Peace River.

4.1 Turbidity – TSS Relationship

PRHP makes water management decisions based on estimates of TSS calculated from field turbidity measurements. An ongoing evaluation of the turbidity – TSS relationship is conducted for each RSEM sediment pond to ensure the relationship used to estimate TSS remains valid. The turbidity-TSS relationship established in 2019 for the RSEM L5E/L5W and R6E/R6W sediment control ponds is currently in use by PRHP field staff. Table 4-1 presents the 2019 TSS-turbidity relationships compared to the relationships developed using the 2021 monitoring data for each of the RSEM sediment control ponds.

Table 4-1:
Turbidity to TSS Conversion Relationships for In Situ Monitoring Equipment

Location	2019 Relationship	2021 Relationship
RSEM-L5-SP	TSS = 0.8738 × (Turbidity) + 1.8301	*TSS = 0.7084 x (Turbidity) – 0.1886
RSEM-R6-SP	TSS = 0.7617 × (Turbidity) + 1.2223	TSS = 0.4674 x (Turbidity) – 0.5328

Notes:
1. Turbidity is calculated at PAM stations (Peace River, above Moberly River); Ganshorn *et al.* (2019)
2. Linear relationship for RSEM-L5E/L5W-P2-SP (Phase 2) in 2021.

Plots of the 2021 *in situ* field turbidity vs. analytical TSS measurement for RSEM L5 (Phase 2) and RSEM R6 sediment pond water are illustrated in Figure 4-1 and Figure 4-2. The best fit linear relationship for both the 2019 and 2021 data are included on the plots.

Monitoring results from the RSEM L5 Phase 2 and RSEM Area R6 ponds for 2021 generally show poor correlations (R^2 = 0.38 and 0.59, respectively) between field turbidity and analytical TSS and poor agreement with the 2019 relationships. For the RSEM L5 ponds, the narrow range of TSS values (generally <10 NTU) observed results in limited resolution of a linear relationship between TSS and turbidity. The lack of agreement between the 2019 and 2021 correlations may be related to differences between Phase 1 and 2 pond construction and conveyance system specifications (*e.g.*, depth to width ratio, slope) which can influence the dispersal and settling tendencies of particulates across the ponds.

With respect to the RSEM R6E/R6W sediment ponds, the 2021 turbidity-TSS relationship diverges considerably from the 2019 relationship with the slope of the latter regression being distinctly lower (0.47) than the slope of the earlier regression (0.76). The cause of this divergence is likely in part due to changes in water management which introduced different source waters into the RSEM R6 sediment ponds in 2021.

In Figure 4-3, mean monthly TSS in the RSEM R6E/R6W sediment ponds are presented along with mean daily TSS measured in the Peace River (RBPR-5.70 station) for 2021. The comparison illustrates that seasonal trends slightly differ with peak TSS in the R6 ponds occurring in March, earlier than peak levels observed in the Peace River in June. With the exception of March and April, TSS levels in the RSEM R6 ponds are generally below or similar to concentrations measured in the Peace River.

Establishing a consistent turbidity-TSS conversion across a wide range of turbidity levels requires continued validation of monitoring data. This is particularly relevant considering the potential variability in source water chemistry associated with increased construction activity. The application of linear relationships developed in 2019 typically overestimated TSS for 2021, thus providing a conservative estimate of TSS. Turbidity-TSS relationships will continue to be reviewed and updated if warranted to provide more robust estimates of TSS from *in situ* turbidity measurements.

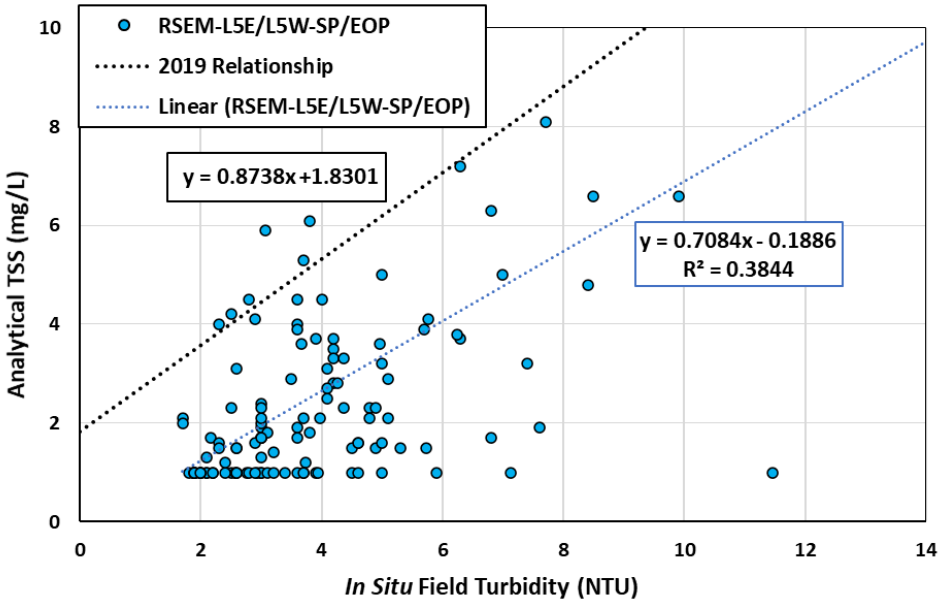

Figure 4-1: Analytical TSS versus *in situ* field turbidity at RSEM-L5E/L5W-P2 (Phase 2) for 2021. A line of best of fit for the annual data is presented along with 2019 Turbidity-TSS conversion.

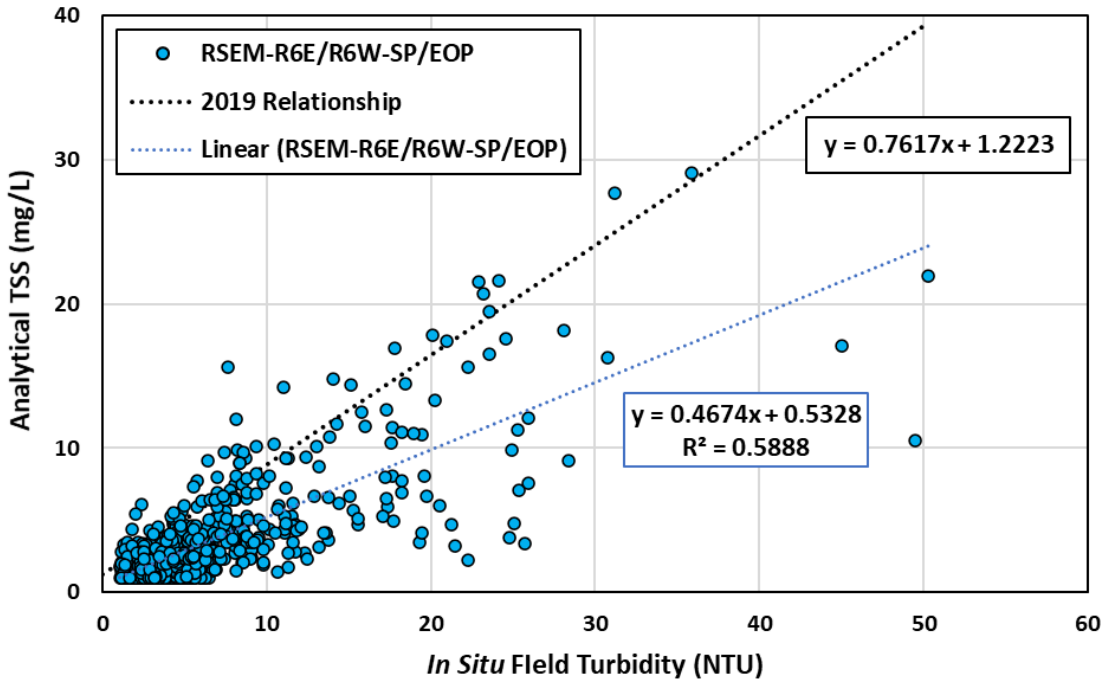

Figure 4-2: Analytical TSS versus in situ field turbidity at RSEM-R6E/R6W for 2021. A line of best of fit for the annual data is presented along with the 2019 Turbidity-TSS conversion.

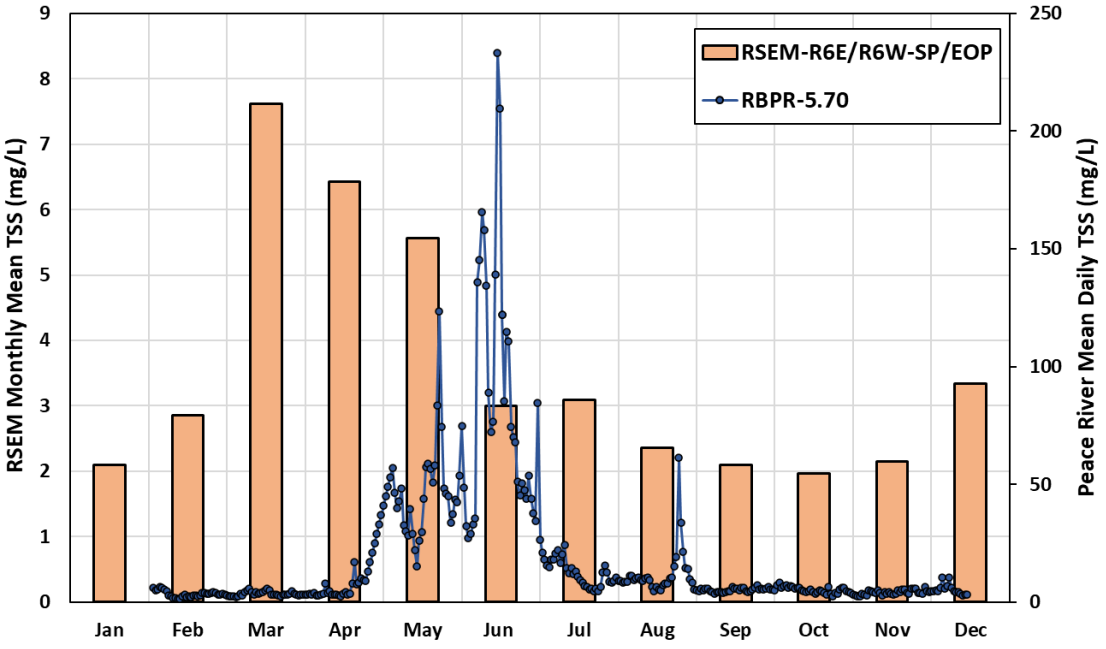

Figure 4-3: MonthlyTSS in RSEM-R6E/R6W-SP/EOP compared to daily TSS in the Peace River for 2021.

4.2 Onset of ARD/ML

Surface water quality and geochemical monitoring data are reviewed on a bi-weekly and quarterly basis, respectively, to identify trends in the onset of ARD/ML. Although not widespread, monitoring results confirm previous evidence of localized acidic rock exposures on both the Left Bank and Right Bank. In 2021, AG samples were identified on the Left Bank (n = 7) and the Right Bank (n = 90) (Section 2.4). No AG samples were identified in the Earthfill Dam.

4.2.1 Left Bank

Key observations with respect to the onset of ARD/ML on the Left Bank in 2021 are as follows:

- One AG sample was collected in RSEM Area L5 in 2021. Water quality in the RSEM L5 Phase 2 East and West sediment control ponds remained circumneutral to alkaline throughout 2021. The metal concentrations remained low and below the discharge limits in these sediment ponds, although sulphate levels often exceeded 1,000 mg/L that may indicate early signs of PAG weathering in RSEM Area L5.
- The RSEM L6 sediment control pond remained circumneutral to slightly alkaline with low metal concentrations. PAG material remains covered in this area and no rinse pH samples were collected in 2021.
- Two AG samples were collected from Bench 0 and four AG samples were collected from the western portion of the LBEX in 2021. Although bedrock exposures in the LBEX are small relative to the total LBEX catchment these weathered surfaces generate acidic runoff. Runoff from the lower LBEX benches that report to the LBEX Bench-0 sump and runoff from bedrock exposed in the western portion of the LBEX that reports to the reports to the LBEX-PAG-SUMP were occasionally acidic and had elevated metal concentrations.

4.2.2 Earthfill Dam

Monitoring results that relate to the onset of ARD/ML on the Earthfill Dam from 2021 are listed below:

- No AG samples were collected from the Earthfill Dam in 2021 and exposed PAG in Zone 8 is covered with fresh material as this area of the Earthfill Dam is built.
- Earthfill Dam waters were generally circumneutral to slightly alkaline, with low sulphate and metals concentrations. One slightly acidic field pH measurement (pH 5.3) was measured at DS-Discharge-R6-WP in March 2021. Elevated metals were

measured in samples from DC-Discharge-R6-WP; however, these samples had high turbidity and low sulphate (≤105 mg/L), suggesting that the elevated metals are not related to ARD.

4.2.3 Right Bank

Water quality and ARD monitoring on the Right Bank led to the following key observations:

- AG material was identified in the Approach Channel, ACDC Ditch, exposures within the RSEM Area R5B catchment (777 Haul Road excavation and West Ditch), and parts of RSEM Area R5A in 2021.
- The Approach Channel has extensive AG exposures consistent with those reported in Lorax (2020); however, excavation in the Approach Channel was reinitiated in Q4 2021 which exposed fresh bedrock with neutral rinse pH (see Section 2.4). This excavation will continue in 2022. Water quality samples collected at the monitoring stations were typically circumneutral to slightly alkaline and metal concentrations typically remained low. A slightly acidic (pH 5.2) field measurement was recorded in March 2021 at AC-E-Hairpin-Ditch; however, other field measurements at this station were circumneutral.
- The RSEM R6 East and West sediment ponds remained circumneutral to slightly alkaline. There were occassional T-Zn exceedances of the discharge limits in 2021; however, these exceedances were not attributed to PAG-influenced runoff (see Section 4.5).
- Eighteen AG samples were collected from exposures adjacent to RSEM Area R5B in 2021. However, water quality sampling at stations in RSEM Area R5B (R5B-P2-W-Sump and R5B-P2-Sump) indicated that the sumps remained circumneutral to slightly alkaline. In addition, sulphate concentrations were moderate and metal concentrations were low, indicating limited influence of ARD.
- The RSEM R5A Ponds remained circumneutral to slightly alkaline. Sulphate levels were moderate and metal concentrations remained low, indicating low ARD influence. However, there is still a risk of acidic runoff from PAG bedrock stored in this area. Eighteen AG bedrock samples were collected in 2021 from this RSEM area, primarily from the northernestern portion.
- The Area 30 sediment control pond was circumneutral to alkaline. Elevated sulphate, Se, and U concentrations were measured in the sediment pond due to weathering of the stockpiled limestone aggregate under neutral conditions.

4.3 Mitigation

Given the onset of ARD/ML in exposed PAG material on both the Left Bank and Right Bank, mitigation has been implemented to minimize effects on surface water and groundwater quality. Potential environmental effects from ARD/ML are mitigated primarily through three strategies. The first strategy is to minimize generation of ARD/ML by covering weathered PAG material with unweathered PAG or NPAG material. The second strategy that is employed is to minimize the volume of PAG-contact water that is generated, by diverting runoff upgradient of areas that contain PAG material and collecting water that contacts PAG material. The third strategy is to treat the residual volume of water for which contact with PAG material is unavoidable. These key mitigation measures are discussed in more detail below.

4.3.1 Material Management

Weathered PAG material was excavated or covered to minimize potential ARD/ML on both the Left and Right Banks. The timely excavation or cover of weathered material is a key mitigation strategy, particularly in the RSEM disposal areas, where relatively large volumes of PAG material have been deposited to date.

PAG material placement in 2021 was primarily in the Earthfill Dam Core (Zone 8) and in RSEM R5A. There was also PAG material placed in RSEM L5 Extension and temporary placement of PAG in the thermal barrier over the Dam Core. The potential for ARD/ML due to bedrock exposure as a result of ongoing excavations occurs in the Approach Channel and the Earthfill Dam Core Trench.

PAG exposed in Zone 8 and RSEM R5A has been managed through the continued placement of fresh PAG in Q4 2021 to limit exposure of weathered material. Although there are early signs of PAG signature in the runoff water quality to the RSEM Area L5 Phase 2 West Pond the redistributed and capping PAG material in RSEM L5 Extension with NPAG material in Q3 and Q4 2020 has maintained water quality within EOP limits throughout 2021. Monitoring of PAG placed as a thermal barrier over the Dam Core confirmed that this material was not AG, which provides sufficient time window for this material to remain pH-neutral until it is removed and placed in a permanent storage location in March 2022.

On the Right Bank, the Approach Channel excavation was initiated in Autumn 2016 had excavation resume in Q4 2020 to bring the Approach Channel down to the final configuration, which is expected to be completed in 2022. The removal of the weathered PAG bedrock by the ongoing excavation has left exposures that are initially pH-neutral. Runoff from this area continues to be collected, monitored, and treated, as needed.

4.3.2 Water Management

This section summarizes water movements that are undertaken to segregate possible ARD influenced water (*i.e.,* PAG contact water) from non-PAG contact waters within PAG containing construction areas. Transfers within and between Project area catchments are conducted to improve water management efficiency and to ensure contact waters are routed through an appropriate treatment facility prior to discharge. This is achieved with a network of sumps, ponds, ditches, baker tanks, and active water management (*i.e.,* pumps, hoses and water trucks). Water quality monitoring data are used to identify ARD influenced water that requires treatment using the MWTF. RSEM sediment control ponds are used to treat suspended sediments (*i.e.,* TSS).

The general water management objectives are to:

- Segregate ARD influenced water that must be treated by the MWTF;
- Maximize storage capacity for surges of PAG contact water associated with heavy runoff from rainfall or snowmelt; and,
- Minimize the number of treatment facilities (*i.e.,* sediment control ponds) that require daily management.

A quarterly summary of water transfers in 2021 to PAG containing RSEM sediment control ponds and to the MWTF Pre-Treatment Pond, from Left Bank and Right Bank catchment areas, is provided in Table 4-2. The source areas and destinations of relocated waters are also shown in Figure 4-4.

Table 4-2:
Quarterly Summary of PAG and Non-PAG Contact Water Transfer to PAG Containing RSEM Sediment Control Ponds and the MWTF Pre-Treatment Pond in 2021

Receiving Facility	Type of Water and Source Area			
	Q1	**Q2**	**Q3**	**Q4**
RSEM L5 East Phase 2 Sediment Control Pond	Non-PAG contact from LBEX	Non-PAG contact from LBEX	Non-PAG / PAG contact from LBEX	Non-PAG / PAG contact from LBEX
RSEM R6 East Sediment Control Pond	Non-PAG contact from LBEX, Area A, CVC, AC	Non-PAG contact from Area A, CVC, AC, R5B	Non-PAG contact from LBCT, Area A, CVC, AC, R5B	Non-PAG contact from Area A, CVC, AC, R5B
RSEM R6 West Sediment Control Pond	PAG contact from Earthfill Dam Core Trench	PAG contact from Earthfill Dam Core Trench	PAG contact from EDES, EDWS	PAG contact from EDES
MWTF Pre-Treatment Pond	PAG contact from LBEX, LBCT, RBCT, AC	PAG and cement contact from Earthfill Dam, RBCT, LBCT and AC	PAG and cement contact from LBEX, LBCT, Earthfill Dam, RBCT, AC and RBDT	PAG contact from LBEX, LBCT, RBCT, AC and RBDT

Notes:
LBEX = Left Bank Excavation; CVC = CVC Batch Plant; AC = Approach Channel; RBCT = Right Bank Core Trench, LBCT = Left Bank Core Trench, EDES=Earthfill Dam East Sump; EDWS=Earthfill Dam West Sump, RBDT=Right Bank Drainage Tunnel, R5B=R5B Sump.
PAG-contact is defined as contact water with a possible ARD influence.
Non-contact is defined as runoff, construction water and groundwater that are not ARD influenced.



LEGEND

PAG Contact Water Collection Areas

Note: Site C aerial imagery collected October 2020

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:15,000

0 200 400 Meters

DATE SAVED:	Feb 07, 2022
DRAWN BY:	AL
REVIEWED:	NM
VERSION:	1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2021 Annual Report

TITLE:

Overview of PAG and Non-PAG Contact Water Transfer to the MWT and Between Catchment Areas

PROJECT #: A416-1

FIGURE: 4-4

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4.3.3 Water Treatment

Water treatment is implemented for contact waters from PAG containing excavations and RSEM deposition areas. Treatment is used to mitigate contact waters influenced by ARD (*i.e.,* low pH and dissolved metals), cement products such as shotcrete (*i.e.,* elevated pH) and suspended sediments (*i.e.,* TSS). Different systems are used for each type of influence. Cement-influenced alkaline contact waters are generally treated within the source area using carbon dioxide to reduce pH to a circum-neutral level. Waters possibly influenced by ARD are directed to the MWTF, and suspended sediments are removed by the RSEM sediment control ponds. This section describes the MWTF that is used to treat ARD influenced contact waters.

PRHP commissioned the MWTF in Q3 2018 with the pre-treatment and metal precipitation facilities located at the west end of the Approach Channel and the sludge pond located within RSEM Area R5B. Treated effluent was directed to the RSEM R5B sediment control pond until late April 2020, when the MWTF was relocated to RSEM Area R6 in advance of the transition to Phase 2 of the Project. Since early May 2020 the MWTF has discharged treated effluent to RSEM R6 West sediment control pond. The configuration of the MWTF system components is illustrated in Figure 4-5.

The overall treatment system consists of three facilities: an influent storage pond, the metal precipitation facility, and a sludge pond, and is designed for continuous treatment of influent flows that range between approximately 3 to 10 L/s. The "MWTF" acronym generally refers to the overall treatment system, however, for the following discussion and in the figures used in this report, MWTF is defined as the intermediate facility where the metal precipitation reagents are mixed with the water being treated.

ARD influenced PAG-contact water is directed by pumping or trucking to the Pre-Treatment Pond for storage and from which water is withdrawn for treatment. Inside the MWTF, the treatment process adds a lime slurry to the influent to increase pH into the target range of 9.6 - 9.8, which precipitates dissolved metals as insoluble metal hydroxides. A flocculant is added to facilitate the coagulation and settling of the freshly precipitated solids. Klearwater Hydrofloc 403 is normally used and HaloSource Haloklear BHR-P50 is used when TSS is elevated in MWTF influent. The resulting slurry mixture is transferred from the MWTF to the Sludge Pond for polishing (*i.e.*, settling solids) and final pH adjustment. The process produces a gelatinous lime sludge that accumulates in the Sludge Pond.

The Sludge Pond is comprised of three cells which are used to settle suspended particulates in the discharge from the MWTF. Sludge is periodically removed by vacuum truck and is dewatered in RSEM Area R5A for long-term storage in the stockpile. The clarified water

is adjusted to circum-neutral pH by sparging CO_2 into the final cell of the sludge pond. The treated water discharges passively to RSEM R6 sediment control pond along a lined channel.

ARD influenced water from the Approach Channel was directed to the Pre-Treatment Pond in 2021, as well as waters from other PAG containing Project areas. The MWTF process was effective at buffering pH and reducing metal concentrations to within the project-specific discharge limits in treated water based on observations of water quality in discharges from the MWTF and RSEM R6 West sediment control pond (Section 3.2.4.5 and Section 3.2.4.7, respectively). A summary of removal efficiency for key dissolved metal parameters is provided in Table 4-3 below.

Table 4-3:
Summary of MWTF Removal Efficiency for Key Parameters in 2021 Q3

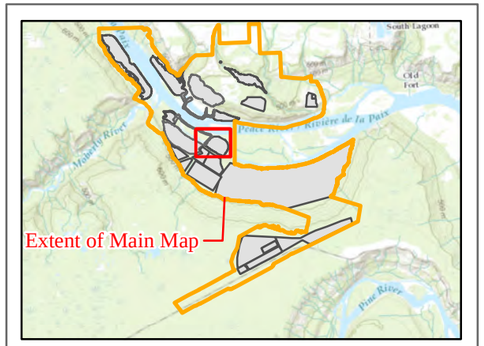
Parameter	Median Influent (mg/L) (Pre-Treatment Pond; n=48)	Median Effluent (mg/L) (MWTF-Cell-3; n=50)	% Removal (using median values)
D-Cd	0.0000423	0.0000126	70%
T-Cd	0.00007	0.00001	86%
D-Co	0.00271	0.000275	90%
T-Co	0.0024	0.00029	88%
D-Cu	0.00150	0.00112	25%
T-Cu	0.0063	0.0015	76%
D-Zn	0.00923	0.00522	43%
T-Zn	0.0319	0.005	84%

Notes:
Non-detect results were assigned the detection limit value for statistical calculations (0.00001, 0.0002 and 0.005 mg/L for Cd, Co and Zn, respectively)

Additional water treatment capacity may be warranted should material management and water management measures be unable to sustain acceptable water quality in discharges from RSEM sediment ponds. Material management and water management are the primary and secondary mitigation strategies as noted above, and additional water treatment will also be considered as a contingency measure, if necessary.

The requirements of Section 7.2.4 of Appendix E (BC Hydro, 2016a) related to the disposal of accumulated sediment from a PAG contact sediment pond, and previously described in Section 2.5.1, were triggered on several occasions in 2021 when sludge was removed from the Pre-Treatment Pond, the Sludge Pond and from within the MWTF reactor tanks. A combined total of approximately 400 m^3 of sludge was removed in 2021. The testing and assessment of these materials is described in Section 2.5.3, and removal these materials was reported on January 26th, February 20th to 22nd, June 1st to 3rd and October 6th to 9th.





Legend

Direction of Flow

Note: Site C aerial imagery collected October 2020

0 50 100 Meters

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DATE SAVED: Aug 25, 2021 **REVIEWED:** NM

DRAWN BY: AL **VERSION:** 1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2021 Report

TITLE:

MWTF Lay out in RSEM Area R6W catchment

PROJECT #: A416-1 *FIGURE:* 4-5

Coordinate System: *NAD 1983 UTM Zone 10N* ***Datum:*** *North American 1983* ***Units:*** *Meter*

Path: *P:\@Drafting\SiteC\Drafting Figures\MXD\2021_Q2_Report\Fig 4-5 MWTF layout.mxd*

4.4 ML/ARD Risk Levels

4.4.1 Comparison of Predicted and Measured RSEM Discharge

A water quality model for the Project was developed as part of the Environmental Assessment (EA), to predict whether discharge from RSEM areas would exceed allowable concentrations (KCB, 2014). Predicted concentrations were initially compared against Metal Mine Effluent Regulations (MMER) Schedule 4 criteria limits, and predictions were only provided for metals with MMER limits. Subsequently, more stringent limits were specified in Appendix E (Revision 5.2, dated July 26, 2016) of the CEMP (BC Hydro, 2016a). The predicted concentrations discussed in the following section are limited to T - Cu and T-Zn to demonstrate key observations.

The water quality model indicated that Upper Case loading rates (95th percentile rates for Humidity Cells and Field Bins), which were believed to represent larger rainstorm "flush" events, could result in concentrations exceeding MMER Schedule 4 limits in discharges from RSEM Area R5B and R5A, unless mitigated (KCB, 2014). These predicted exceedances are caused primarily by the area of PAG shale exposed as a result of the excavation of the Approach Channel in the RSEM R5B catchment (assumed to reach a maximum of 17.7 ha), and by the exposed PAG shale expected to be deposited (9.3M m^3) in RSEM Area R5A late in the construction phase of the Project (KCB, 2014).

The mitigation proposed was placement of overburden or recently excavated shale to cover acidic material. It was estimated that 80% to 90% cover of the exposed Approach Channel and of material placed in RSEM Area R5A would be required to meet the MMER criteria (KCB, 2014) in discharge from the RSEM R5B and R5A ponds.

In a subsequent report (KCB, 2016), it was noted that covering the Approach Channel excavations on the Right Bank may be impractical. Therefore, only the unmitigated scenario for R5B (0% of PAG material covered) and both the unmitigated and mitigated scenario for R5A (0% and 100% of PAG material covered) were modelled. The results for these scenarios (Table 4-4) clearly indicate that the discharge limits would be exceeded with 0% cover of acidic material in both the Approach Channel and of material deposited in RSEM R5A, without additional mitigation (water treatment), as noted above.

The predictions cited above are for the maximum monthly average concentrations for the period included in the water quality model, from October 2014 through 2024. The predictions are based on the assumptions (KCB, 2014) that:

- A maximum extent of 17.7 ha of PAG shale would be exposed in the Approach Channel in the RSEM Area R5B catchment; and

- Approximately 10.6 Mm^3 of material, including 9.3M m^3 of (PAG) rock and 1.25M m^3 of overburden, would be placed in RSEM Area R5A.

Table 4-4:
Comparison of Maximum Monthly Water Quality Predictions for T-Cu and T-Zn (from KCB, 2016), CEMP requirements, and MMER Schedule 4 limits for discharge from RSEM Areas R5B and R5A

Parameter	CEMP discharge limit (mg/L)	MMER 30 day limit (mg/L)	R5B maximum prediction (mg/L)	R5A maximum prediction (mg/L)
T-Cu	0.011	0.3	0.15	2.5
T-Zn	0.033	0.5	0.7	13.3

At the end of Q3 8.9 ha, or 50% of the area that will ultimately be exposed. The total volume of PAG rock deposited in RSEM Area R5A to the end of Q3 was approximately 5.85M m^3 (including approximately 57,000 m^3 placed in the RSEM R5A starter dyke) or approximately 63% of the total volume that was expected to be deposited by this time, which includes almost all of the material that was expected to be deposited to the completion of the project, as shown in Table 4-5 below. This is primarily due to the temporary deferral of the remaining Approach Channel excavation, which resumed in Q4 2021. A total of 1,197,831 m^3 of material was excavated from the Approach Channel in Q4. Some of this material (approximately 245,022 m^3) was placed in RSEM R5A, and the remainder (approximately 955,871 m3) was placed in the Earthfill dam.

Table 4-5:
Comparison of scheduled and reported volumes of material placed in RSEM Area R5A (scheduled volumes, KCB, 2014, Page 80, Table 39)

Construction Stage	Time	Scheduled Rock (PAG) Material added[1] (m^3)	Reported PAG material added[2,3] (m^3)	Scheduled Cumulative volume of Rock (PAG) stockpiled (m^3)	Reported Cumulative volume of PAG stockpiled (m^3)	%
Diversion Stage 1	4Q15 – 3Q16	2,827,600	0	2,827,600	0	0%
	4Q16 - 3Q17	4,151,200	3,541,397	6,978,800	3,541,397	38%
	4Q17 - 3Q18	487,300	454, 045	7,466,100	3,995,442	43%
	4Q18 - 3Q19	1,818,800	1,122,639	9,284,900	5,118,081	55%
	4Q19 - 3Q20	-	361,882	9,284,900	5,479,963[5]	59%
Diversion Stage 2[4]	4Q20 - 3Q21	-	336,263	9,284,900	5,847,764[5]	63%
	4Q21 - 3Q22	21,000	245,022	9,305,900	-	

[1]Values from KCB, 2014; Table 39.
[2] Values from Lorax Quarterly ARD/ML Reports.
[3] It is assumed that all rock volumes are PAG.
[4] Originally planned for 3Q19, deferred to 3Q20
[5] This includes 5,341,553m^3 deposited in RSEM R5A and 57,232 m^3 deposited in the RSEM R5A starter dyke

The predicted (KCB, 2016) and measured concentrations for total Cu and Zn for RSEM Area R5B (no mitigation) are shown in Figure 4-6 and Figure 4-7. Predicted total Cu and Zn concentrations (KCB, 2016) for RSEM Area R5A (0% and 100% cover) and the measured concentrations for RSEM R5A Pond C are shown in Figure 4-8 and Figure 4-9. The MMER and CEMP discharge limits are shown for comparison.

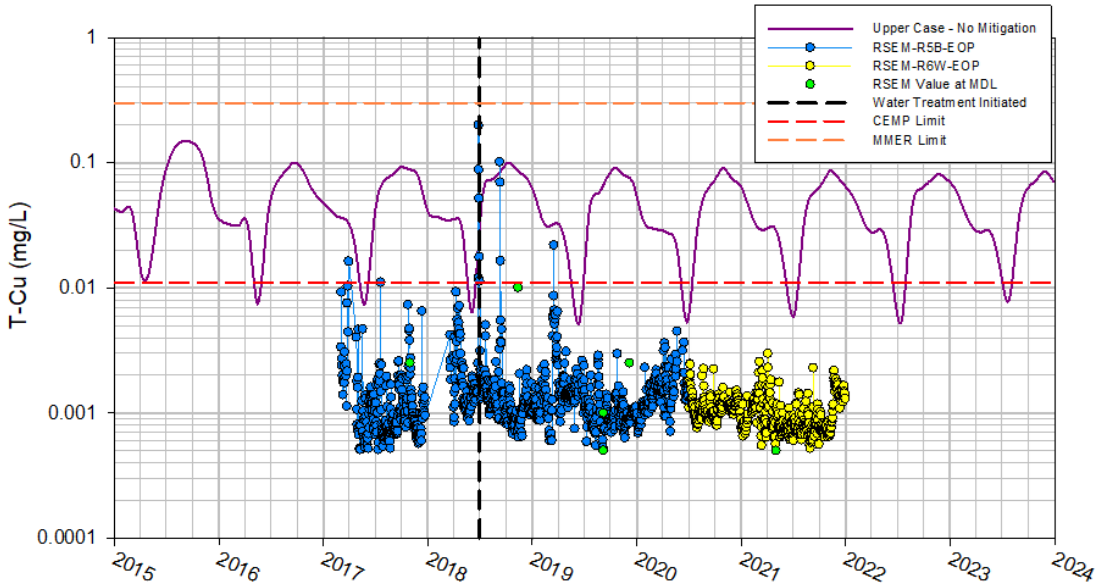

Figure 4-6: Cu Predicted at RSEM R5B / R6 (Upper Case – No Mitigation) and Measured at RSEM-R5B (through 2020 Q2) and R6 (through 2021 Q4)

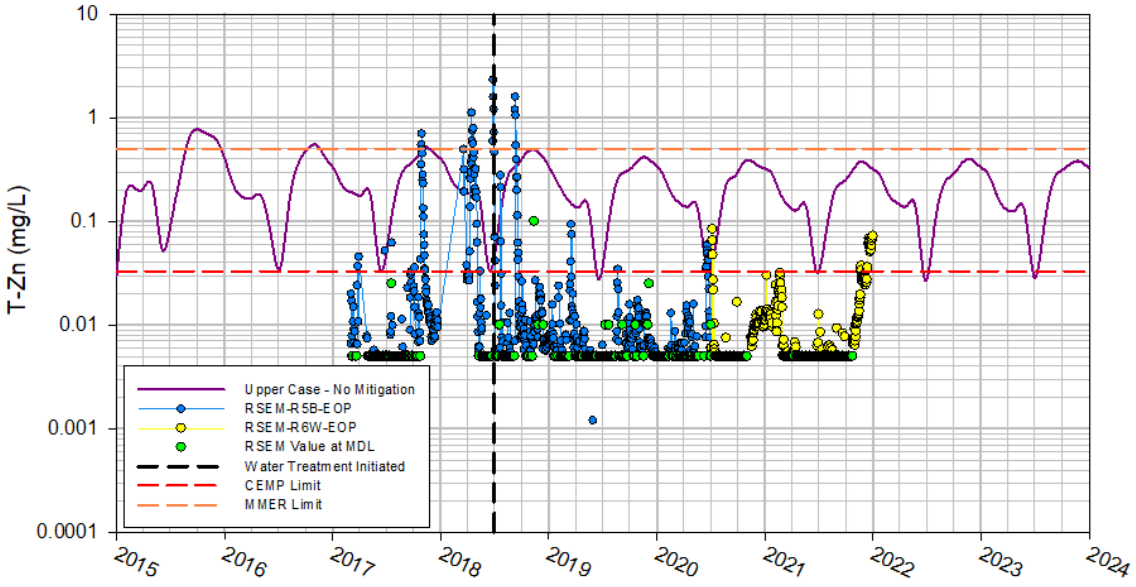

Figure 4-7: Zn Predicted at RSEM R5B / R6 (Upper Case – No Mitigation) and Measured at RSEM R5B (through 2020 Q2) and R6 (through 2021 Q4)

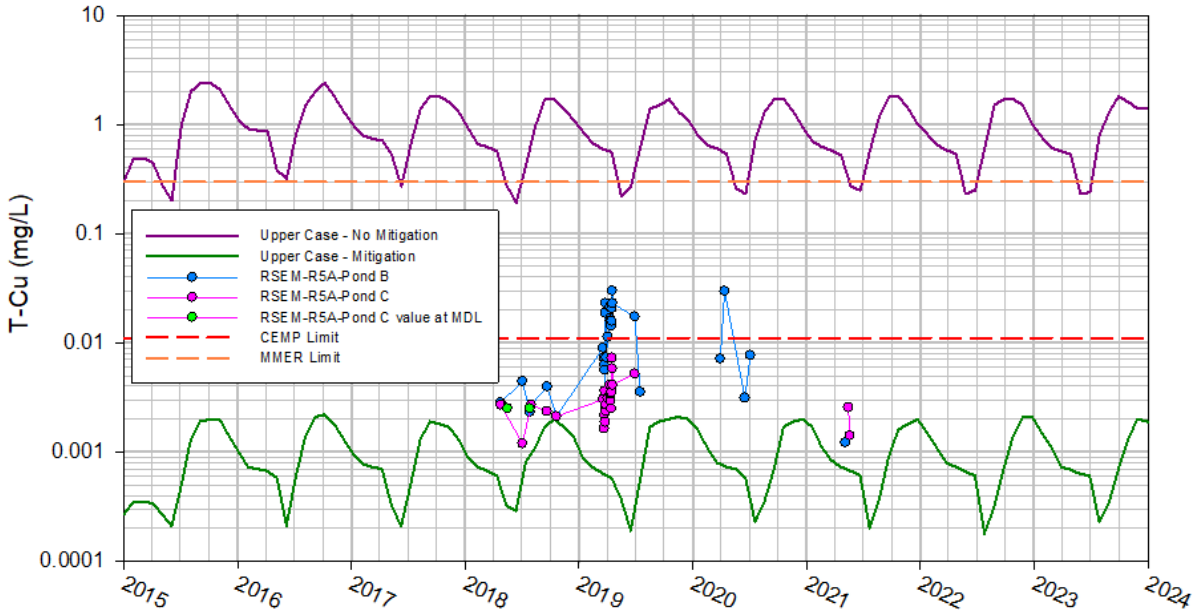

Figure 4-8: T-Cu Predicted at RSEM R5A (No Mitigation and 100% Mitigation) and Measured at RSEM R5A Pond B and Pond C

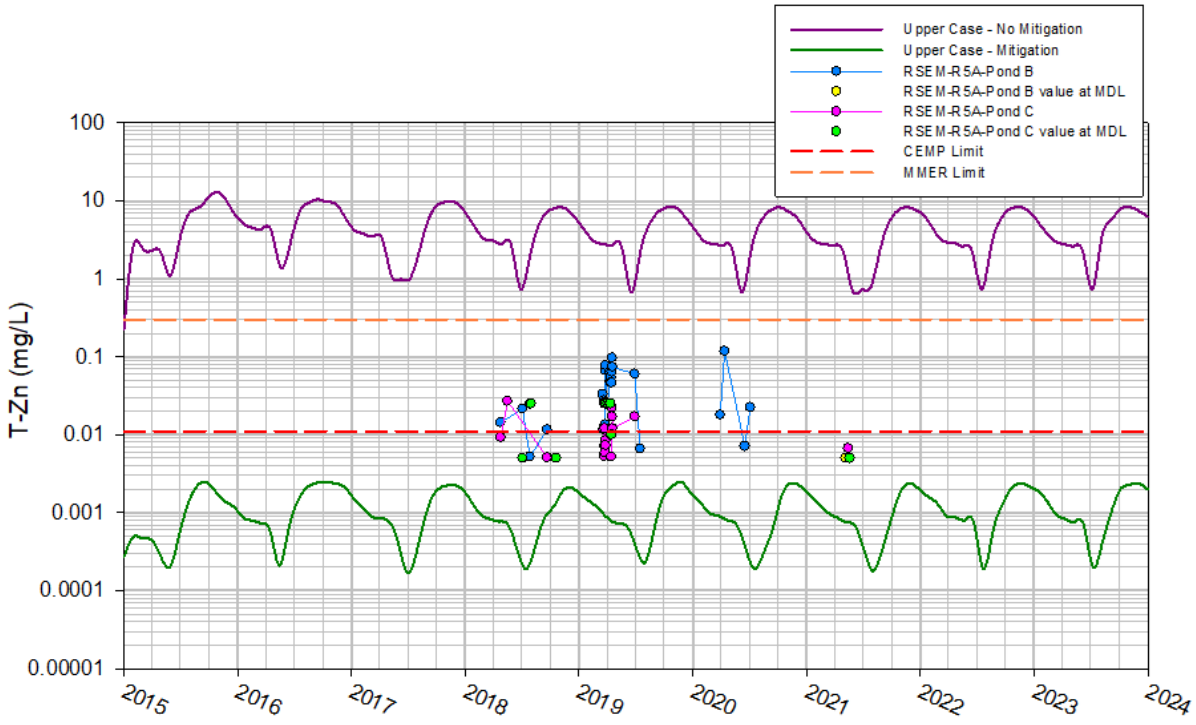

Figure 4-9: Zn Predicted at RSEM R5A (No Mitigation and 100% Mitigation) and Measured at RSEM R5A – Pond B and Pond C

The water quality model results for RSEM Area R5B indicate that Cu and Zn concentrations would often exceed the CEMP discharge limits without mitigation, assuming upper case geochemical source terms, which were stated to be representative of large precipitation events. Water treatment was initiated in July 2018 and the water management system was modified in October 2018 to capture PAG impacted surface water during large storm events and direct it to the MWTF. The runoff from the Approach Channel is now directed to the relocated MWTF in RSEM Area R6.

The water quality monitoring results for RSEM Area R5A indicate that Cu and Zn concentrations are generally slightly elevated relative to the concentrations predicted with implementation of mitigation (100% cover), which is consistent with actual conditions in the field (the % cover in Q4 2020 is estimated to be approximately 75%). These plots also indicate that Cu and Zn concentrations approach or exceed RSEM sediment pond discharge limits and underscore the importance of continued mitigation in RSEM Area R5A.

These results confirm that the inherent risk in the Right Bank catchments is high, and that avoiding exceedances in both catchments (now the R5A and R6 catchments) will require diligent and consistent implementation of mitigation measures. It is necessary to collect and treat contact water from weathered bedrock in the Approach Channel excavation. The surface area of this excavation started to increase substantially in Q4 2021. In the RSEM Area R5A catchment, covering PAG shale with freshly excavated material is necessary, and the volume of PAG material that will be deposited is also expected to increase substantially as excavation of the Approach Channel has resumed.

A consideration for RSEM Area R5A in 2021 through to the establishment of the permanent reservoir behind the dam is the ability to cover exposed PAG surface to limit the extent of AG surfaces. It is currently Lorax's understanding that the difference between the cumulative volume of scheduled (9.3M m^3) and reported (5.85M m^3) PAG rock at the end of Q3 2021 (roughly 3.45M m^3), will be deposited in RSEM Area R5A in 2022. Subsequent to this there will be relatively small volumes of additional material placed in the RSEM area to cover the PAG exposure and limit weathering of the PAG surface and reduce the amount of PAG runoff.

If this eventuality were to occur, it is likely that the RSEM R5A sediment ponds will temporarily receive a higher proportion of PAG contact water that would require management and treatment until placement of the final cover layer. Although a high proportion of PAG runoff is initially expected to the Phase 2 ponds, the smaller surface area of exposed PAG above the Phase 2 ponds will decrease the total volume of runoff water that may require special management or transport to the MWTF. Continued monitoring and scheduling of fresh PAG placement on weathered surfaces will be required

and during the final phases of construction, an interim strategy that will need to be developed to allow for a small area of active PAG placement while the majority of the RSEM will be covered.

4.4.2 Risk Rating Matrix

A risk rating matrix was initially prepared for the Exceedance Response Plan (PRHP, 2017c) that was finalized in June 2017. An updated matrix based on an assessment of the 2021 data is presented in this section. It is intended to facilitate the advanced planning and strategic implementation of water treatment, recognizing that procurement, construction and commissioning of a water treatment facility requires some lead time.

A water quality risk rating of low, moderate or high is assigned to each of the water collection systems on site. Consideration has been given to active PAG-containing RSEM sediment ponds including the RSEM Area L5, R6 and R5A sediment ponds and the R5B Sump.

The rating system employed for the RSEM ponds reflects:

- The current geochemical risk in the catchment area upgradient of the sediment pond, as determined primarily from the proportion of exposed material with low (< 5.5) rinse pH values;
- The quality of the water that has accumulated in the pond, as determined primarily by the sulphate concentration, field pH and field conductivity; and
- Other information determined to be relevant.

The current risk ratings are summarized in Table 4-6 below. The general intent of the risk ratings is to trigger action when the onset of ARD/ML is evident (moderate rating) and when water treatment may soon be required to maintain compliance with EOP discharge limits (high rating).

On the left bank the cumulative volume of PAG material that was placed in RSEM areas at the end of 2021 is as follows:

- 1,013,037 m^3 in RSEM Area L5;
- 495,240 m^3 in the RSEM Area L5 Extension; and
- 4,869 m^3 in the RSEM Area L5 Starter Dyke;

In addition, there was

- 64,345 m^3 in RSEM Area L6;
- 24,240 m^3 in the L5 Garbage Creek area; and
- 12,345 m^3 in the Left Bank Dam Core.

The RSEM Area L5 is rated as moderate risk due to the larger than anticipated volume of PAG rock stored in it and given that the maximum concentrations of sulphate and conductivity remain elevated (<1,000 mg/L and >2,000 µs/cm respectively) in the L5E pond. It is anticipated that the risk level will decline in 2022 as the majority of PAG material in this area has been redistributed and is now covered with NPAG material.

The RSEM Area L6 sediment pond has a small catchment area and is managed not to discharge to the Peace River. It is excluded from the Risk Rating Matrix as the water in this pond would be transferred to the MWTF, if treatment was required, rather than installing a water treatment facility specifically for this pond.

On the Right Bank, the cumulative volumes of material placed in RSEM areas at the end of 2021 were:

- 6,092,786 m^3 of PAG bedrock in RSEM Area R5A and Starter Dyke; and
- 363,618 m^3 remaining in RSEM Area R5B, which is covered by NPAG material.

The highest risk rating is assigned to RSEM Area R6 sediment control pond as this pond now receives runoff from the exposed PAG shale in the Approach Channel, which represents the majority of PAG-contact waters from the construction site. Approach Channel waters, and other PAG influenced site waters, are directed to the MWTF Pre-Treatment Pond which is discharged to the RSEM R6 West sediment pond following treatment, thereby mitigating the risk of RSEM discharge limit exceedances from these waters.

PAG contact water from the western portion of the Approach Channel and the area between the western extent of the Approach Channel and the Moberly River on the slopes above RSEM Area R5B is routed to the R5B Phase 2 Sump. This includes PAG contact water from the West Ditch, ACDC Ditch and 777 haul road exposures. Most samples from PAG bedrock exposed in this area had a rinse pH of less than 5.5. The high-risk rating is mitigated by the 7,480 m^3 of capacity R5B Phase 2 Sump that can be used to store runoff water from a storm event and can subsequently be diverted at a sustainable rate to the MWTF which produces water within the RSEM EOP limits.

Excavation of the Approach Channel resumed in Q4 2021, which will relocate weathered near-surface material to RSEM-R5A and expose ‘fresh’ bedrock, which is not expected to start becoming acidic until later in 2022. PAG influenced runoff from the Approach Channel is monitored and if necessary, diverted to the MWTF for treatment prior to discharge to RSEM R6W pond, as noted above. The treatment process was effective throughout 2021.

Table 4-6:
Risk Rating Matrix for PAG-Containing RSEM Sediment Ponds in 2020

Factor	Sediment Pond(s)		
	L5	**R6**	**R5A[1]**
% of exposed material with rinse pH < 5.5	15% (7 / 47 samples)	82% (75 / 91 samples)	27% (18 / 66 samples)
Field pH (in sediment pond)	≥ 7.4 in all samples	≥ 6.8 in all samples	≥ 7.3 in all samples
Sulphate (in sediment pond)	≤ 1,400 mg/L in all samples	≤ 437 mg/L in all samples	< 204 mg/L in all samples except 1 (690 mg/L) in Phase 2 Pond D
Lab Conductivity (in sediment pond)	≤ 3,210 µS/cm in all samples	≤ 1,780 µS/cm in all samples	≤ 677 µS/cm in all samples except 1 (1,560 µS/cm) in Phase 2 Pond D
Rinse pH of exposed material in catchment	Low	High[2,3]	Moderate
pH (in sediment pond)	Low	Moderate	Low
Sulphate (in sediment pond)	Moderate	Low	Moderate
Conductivity (in sediment pond)	Moderate	Moderate	Moderate
Overall Risk Rating	Moderate	High	Moderate

Notes:
1. Water quality sampling at RSEM R5A is less frequent than the R5B Sump and R6 sediment ponds.
2. Eastern portion of Approach Channel runoff directed to the MWTF and discharged via RSEM-R6W sediment pond
3. Western portion of Approach Channel and slope above RSEM Area R5B runoff reports to the R5B P2 Sump and directed either to the MWTF and discharged via RSEM-R6W sediment pond or directly to the RSEM-R6E sediment pond

Otherwise, there is little PAG material in the RSEM Area R6 catchment and the ML/ARD risk is low. Some exposed PAG material is located along the South Bank Initial Access Road (SBIAR). However, this relatively minor risk is managed by BC Hydro. Bedrock exposure in the RCC excavation is reduced by cover with roller compacted concrete. ARD that may be produced in the area is neutralized by the alkaline water released by concrete structures being built in this area.

In 2021, PAG deposition reached an estimated 6,092,404 m^3 in RSEM Area R5A (including the material in the R5A starter dyke). The risk is mitigated by covering PAG material before the onset of ML/ARD.

A risk rating of 'moderate' is assigned to the RSEM R5A area, as a significant number of samples obtained in 2021 had a rinse pH of less than 5.5 and there was an increasing trend in the latter half of 2021. In addition, one sample from Pond D had elevated sulphate and conductivity. Dissolved concentrations of Cd, Cu and Zn were somewhat elevated but below EOP discharge limits.

The RSEM R5A Phase 2 sediment control ponds were managed to not passively discharge, and active pumping from between the different R5A ponds was used as needed to maintain low water levels in the ponds. PAG material placed in RSEM Area R5A is compacted and covered with NAG soon after placement. This is reflected in the pond water quality which generally meets RSEM EOP limits and BC WQGs.

Management measures to mitigate risk include: 1) minimizing exposures of acid generating surfaces by placement of fresh PAG and non-PAG material to cover weathered PAG materials, which will limit contact of surface runoff with acid generating materials; and 2) active management of water levels in the RSEM R5A ponds to prevent discharges. Active management options could include adding additional temporary water storage or transporting water by truck to the MWTF or other sediment ponds on site.

4.5 Water Quality Exceedances

Any exceedance of EOP discharge limits in laboratory analysis of water discharged from PAG-containing RSEM sediment ponds to the Peace River is reported within 24 hours of receiving the analytical water quality results. Exceedances are also noted in weekly reports.

There were exceedances for total zinc in the RSEM R6E sediment control pond in January 2021 and there were exceedances for total zinc from the RSEM R6W pond intermittently from November 20th until the end of the year. There were also exceedances reported for discharges from the Earthfill Dam west sump in the first half of July. These exceedances are discussed in more detail below.

4.5.1 T-Zn in discharge from RSEM-R6E in early January

There was one exceedance in discharge from the Right Bank in 2021 Q1. Total zinc exceeded the limit in discharge from the RSEM Area R6E sediment control pond on January 6, 2021. The initial laboratory result was confirmed upon reanalysis. The exceedance is summarized in in Table 4-7 below.

Table 4-7:
Summary of Metal Exceedances for RSEM-R6E-Pond –2021 Q1

Sample No.	Date Sampled	Date Results Received	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3)
ZD1294	06/01/2021	13/01/2021	T-Zn	0.0373	0.033	300

The cause of this exceedance is uncertain. The concentration of TSS was low in the sample (1.5 mg/L) and other parameters that may be indicative of ARD were also low (D-Zn was 0.0072 mg/L and SO_4 was 146 mg/L).

4.5.2 T-Zn in discharge from RSEM-R6W in November and December

The concentration of T-Zn in the discharge from the RSEM-R6W Sediment Control Pond exceeded the discharge limit (0.033 mg/L) on November 20th , 22nd and 23rd, and then again on most days from December 12th until the end of the year. The exceedance is summarized in Table 4-8. The magnitude of the exceedances were relatively minor. Measured concentrations were initially just above the discharge limit (up to 0.0372 mg/L on December 12th and again on December 16th), but then increased to a range of between 0.0510 mg/L and 0.0685 mg/L, with no obvious pattern in the T-Zn concentrations in the second half of December. The initial trend was similar to observations during the February 2021 cold period when T-Zn concentrations also increased in the RSEM R6W Sediment Control Pond.

Frozen site conditions are linked to the increased T-Zn and during this time, he only reported input to the RSEM Area R6W pond is Mobile Water Treatment Facility (MWTF) effluent, however weekly monitoring from the MWTF sludge ponds indicates T-Zn does not originate from the treated MWTF effluent. The source of the T-Zn in the R6W sediment pond was suspected to originate from low flows from the MWTF discharging through a corrugated metal culvert. To evaluate this, water quality samples were collected on January 10 at the outlet of MWTF Cell 3 and at the inlet to the RSEM R6W pond directly below the culvert. These results show that water discharging from the MWTF had low T-Zn concentrations (<0.003 mg/L) while the T-Zn concentration at the inlet to the RSEM R6W

pond had increased to 0.412 mg/L. These results confirm that the culvert is the source of elevated T-Zn concentrations in the R6W pond.

The duration of the non-compliant discharge was in-part due to the delay in receiving analytical results from the primary laboratory (BV) due to the cyber-attack and the transition to the replacement lab (ALS). Temporary mitigation included the following actions:

- Pumping water from the RSEM-R6W to the RSEM-R6E Sediment Control Pond to reduce water levels below the discharge pipe elevation and dilute T-Zn concentration to a level below the discharge limit prior to discharge to the Peace River;
- Pump RSEM Area R6W pond water to the pre-treatment pond; and
- Treated MWTF effluent is now pumped directly to the RSEM-R6W Sediment Control Pond to bypass the culvert that is the suspected source of T-Zn.

Although the temporary mitigation has been shown to be effective, permanent mitigation is planned once the ice is cleared from the area.

Table 4-8:
Summary of Metal Exceedances for RSEM-R6W-Pond –2021 Q4

Location	Sample No.	Date Sampled	Date Reported	Parameter	Measured Concentration (mg/L)	RSEM EOP Limit (mg/L)	Volume Discharged (m^3/day) [A]
RSEM-R6W-EOP	ALR016	20/11/2021	05/01/2022	T-Zn	0.0343	0.033	598
No Exceedance on 21 November							
RSEM-R6W-EOP	ALQ581	22/11/2021	30/12/2021	T-Zn	0.0372	0.033	581
RSEM-R6W-EOP	ALN437	23/11/2021 10:15	11/01/2022	T-Zn	0.0337	0.033	532
No Exceedance from 24 November through 11 December							
RSEM-R6W-EOP	FJ2101434-002	12/12/2021	30/12/2021	T-Zn	0.0343	0.033	174
RSEM-R6W-EOP	FJ2101455-001	13/12/2021 11:20	28/12/2021	T-Zn	0.0359	0.033	0.86
No Exceedance on 14 or 15 December							
RSEM-R6W-P	FJ2101483-001	16/12/2021 10:25	07/01/2022	T-Zn	0.0372	0.033	438
RSEM-R6W-EOP	FJ2101490-001	17/12/2021 11:35	07/01/2022	T-Zn	0.0608	0.033	907
RSEM-R6W-EOP	FJ2101495-001	17/12/2021 13:30	07/01/2022	T-Zn	0.0679	0.033	-
No Exceedance on 18 December							
RSEM-R6W-EOP	FJ2101494-001	19/12/2021 11:30	07/01/2022	T-Zn	0.0642	0.033	1098
RSEM-R6W-EOP-DUP	FJ2101494-002	19/12/2021 11:40	07/01/2022	T-Zn	0.0624	0.033	-
RSEM-R6W-EOP	FJ2101496-001	20/12/2021 10:25	07/01/2022	T-Zn	0.0573	0.033	237
RSEM-R6W-EOP	FJ2101514-004	21/12/2021 11:00	07/01/2022	T-Zn	0.0547	0.033	162
RSEM-R6W-EOP	FJ2101508-002	22/12/2021	07/01/2022	T-Zn	0.0510	0.033	211
RSEM-R6W-EOP	FJ2101512-001	23/12/2021 11:00	07/01/2022	T-Zn	0.0524	0.033	61
RSEM-R6W-EOP	FJ2101513-001	24/12/2021 11:45	07/01/2022	T-Zn	0.0562	0.033	37
RSEM-R6W-EOP	FJ2101514-001	25/12/2021 11:00	07/01/2022	T-Zn	0.0528	0.033	17
RSEM-R6W-EOP	FJ2101514-002	26/12/2021 13:45	07/01/2022	T-Zn	0.0676	0.033	226
RSEM-R6W-EOP	FJ2101514-003	27/12/2021 10:45	07/01/2022	T-Zn	0.0552	0.033	359
RSEM-R6W-EOP	FJ2101525-001	28/12/2021 11:15	11/01/2022	T-Zn	0.0653	0.033	497
RSEM-R6W-EOP	FJ2101526-001	29/12/2021 11:20	11/01/2022	T-Zn	0.0685	0.033	253

[A] Discharge volume is calculated from the logged flow measurements for the 24-hour calendar date sampled.

4.5.3 Earthfill Dam – West Sump, T-Fe and D-Al Exceedances in July

There were exceedances of Short-Term BC Water Quality Guidelines for the Protection of Freshwater Aquatic Life reported for T-Fe on July 3rd and D-Al on July 4th and again from July 8-10 in the discharge from the Earthfill Dam West sump. An internal investigation conducted by BV laboratories determined laboratory contamination during sample filtration was likely responsible for the elevated D-Al reported by the laboratory and the actual water quality discharged on those dates is expected to have D-Al concentrations within the Short-Term WQGs. The T-Fe exceedance is summarized in Table 4-9 below.

Table 4-9:
Summary of Exceedance(s) of F-Fe on July 3, 2021
in RSEM Sediment Pond Discharge Limits in PAG Contact Water

Location	Sample No.	Date Sampled	Date Reported	Parameter	Measured Concentration (mg/L)	Short-Term BC WQG (mg/L)	Volume Discharged on Day of Exceedance (m^3/day)
EARTHFILL DAM-W-SUMP	ABE025	03/07/2021	16/07/2021	T-Fe	1.14	1.0	1100 - 1200

4.6 Metal Loads

Calculation of metal loading to the Peace River on a weekly basis is a requirement of section 7.3.2 of Appendix E of the CEMP. Daily loads for each RSEM sediment pond were calculated by applying the concentration measured in the daily EOP grab sample to the total volume of water discharged on that day, as recorded by the pond's flow meter. Daily loading estimates were then summed for each month to obtain the monthly load discharged to the Peace River, providing an estimate of the total load discharged from the Project site.

For this Annual Report, the metal loads discharged from the Left Bank are summarized on a quarterly basis and for 2021, followed by metal loads from the Right Bank. This is followed by a summary of the metal loads discharged from Site C in 2021 in relation to the metal loads carried by the Peace River.

4.6.1 Left Bank

The metal loads discharged from the Left Bank included combined discharge from the RSEM-L5E and RSEM-L6 Sediment Control Ponds in Q2, Q3 and Q4, as well as the load from the RSEM-L5W Sediment Control Pond in Q3. These are summarized in Table 4-10 and Table 4-11 below.

Table 4-10:
Quarterly Metal Load Discharged from RSEM L6/L5E Sediment Control Pond - 2021

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	**Q2**	**Q3**	**Q4**	**Total**
TSS	0	58.432	224.1	1.77	284
Cl	0	46.3	4130	50.1	4226
F	0	0.395	28.92	0.196	29.5
D-SO_4	0	396	70700	297	71393
N-NH_3	0	0.1674	5.22	0.0135	5.40
N-NO_2	0	0.02063	2.49	0.00612	2.52
N-NO_3	0	0.769	199.6	0.00734	200
T-Sb	0	0.000647	0.0991	0.000306	0.100
T-As	0	0.001331	0.0441	0.000306	0.046
T-Cd	0	0.0001196	0.003111	0.0000122	0.003
T-Co	0	0.0016394	0.08025	0.000122	0.0820
T-Cu	0	0.003641	0.1513	0.000967	0.156
T-Fe	0	1.9091	7.59	0.11	9.61
T-Pb	0	0.0009594	0.03481	0.000122	0.0359
T-Mn	0	0.07596	4.983	0.00532	5.06
T-Mo	0	0.0105	1.419	0.00563	1.44
T-Se	0	0.00353	0.671	0.00121	0.676
T-Ag	0	2.524E-05	0.00346	0.0000122	0.003
T-Zn	0	0.01913	0.894	0.00306	0.916
D-Al	0	0.02221	2.699	0.00373	2.72
D-Cd	0	3.347E-05	0.002737	0.00000979	0.00278
D-Co	0	0.0002524	0.0689	0.000122	0.0693
D-Cu	0	0.001301	0.1232	0.000783	0.125
D-Fe	0	0.01856	2.732	0.00612	2.76
D-Zn	0	0.00633	0.755	0.00306	0.764

Table 4-11:
Quarterly Metal Load Discharged from RSEM L5W Sediment Control Pond - 2021

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	Q2	Q3	Q4	Total
TSS	0	0	0.635	0	0.635
Cl	0	0	44.2	0	44.2
F	0	0	0.2357	0	0.2357
D-SO_4	0	0	723	0	723
N-NH_3	0	0	0.03386	0	0.03386
N-NO_2	0	0	0.0268	0	0.0268
N-NO_3	0	0	1.801	0	1.801
T-Sb	0	0	0.000464	0	0.000464
T-As	0	0	0.0003445	0	0.0003445
T-Cd	0	0	2.086E-05	0	2.086E-05
T-Co	0	0	0.0001864	0	0.0001864
T-Cu	0	0	0.000805	0	0.000805
T-Fe	0	0	0.0545	0	0.0545
T-Pb	0	0	0.0001184	0	0.0001184
T-Mn	0	0	0.00579	0	0.00579
T-Mo	0	0	0.01311	0	0.01311
T-Se	0	0	0.00545	0	0.00545
T-Ag	0	0	1.184E-05	0	1.184E-05
T-Zn	0	0	0.002959	0	0.002959
D-Al	0	0	0.00604	0	0.00604
D-Cd	0	0	7.84E-06	0	7.84E-06
D-Co	0	0	0.000151	0	0.000151
D-Cu	0	0	0.000691	0	0.000691
D-Fe	0	0	0.00754	0	0.00754
D-Zn	0	0	0.00377	0	0.00377

4.6.2 Right Bank

The metal loads discharged from the Right Bank in 2021 included discharge from the RSEM-R6E and RSEM-R6W Sediment Control Ponds. These are summarized in Table 4-12, and Table 4-13 below.

Table 4-12:
Quarterly Metal Load Discharged from RSEM-R6W Sediment Control Pond - 2021

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	Q2	Q3	Q4	Total
TSS	1953.8	1913	1913	191.8	5972
Cl	4005	4680	4680	1512	14877
F	29.33	49.7	49.7	13.31	142
D-SO_4	29930	37190	37180	8660	112960
N-NH_3	24.96	58.21	58.11	3.552	145
N-NO_2	3.538	5.47	5.48	1.406	15.9
N-NO_3	30.62	71.4	71.3	17.62	191
T-Sb	0.1707	0.3524	0.3524	0.0881	0.964
T-As	0.133	0.3318	0.3318	0.0524	0.849
T-Cd	0.004813	0.003382	0.003381	0.000842	0.0124
T-Co	0.0605	0.1273	0.1273	0.01379	0.329
T-Cu	0.19749	0.2632	0.2632	0.0592	0.783
T-Fe	76.312	71.94	71.94	4.86	225
T-Pb	0.04598	0.0653	0.0653	0.01124	0.188
T-Mn	12.3602	5.823	5.823	0.738	24.7
T-Mo	0.964	2.017	2.017	0.347	5.35
T-Se	0.2937	1.05	1.05	0.0872	2.48
T-Ag	0.003448	0.0052	0.0052	0.001114	0.0150
T-Zn	1.164	1.346	1.346	0.991	4.85
D-Al	4.787	6.17	6.17	1.123	18.3
D-Cd	0.003198	0.003154	0.003154	0.00084	0.0103
D-Co	0.03845	0.0834	0.0834	0.01321	0.218
D-Cu	0.09021	0.1526	0.1524	0.0472	0.442
D-Fe	1.69	2.726	2.725	0.753	7.89
D-Zn	1.054	1.297	1.297	0.909	4.56

Table 4-13:
Quarterly Metal Load Discharged from RSEM-R6E Sediment Control Pond - 2021

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	Q2	Q3	Q4	Total
TSS	73.2	73.2	482	89.2	718
Cl	883	883	3314	3051	8131
F	6.385	6.385	33.37	15.03	61.2
D-SO_4	3403	3403	27820	8950	43576
N-NH_3	3.866	3.866	7.08	3.006	17.8
N-NO_2	0.3756	0.3756	1.66	1.048	3.46
N-NO_3	10.87	10.87	28.85	44.67	95.3
T-Sb	0.01495	0.01495	0.1472	0.03634	0.213
T-As	0.01168	0.01168	0.094	0.02429	0.142
T-Cd	0.0007056	0.0007056	0.001889	0.001353	0.00465
T-Co	0.01412	0.01412	0.0408	0.02962	0.0987
T-Cu	0.0246	0.0246	0.1196	0.0573	0.226
T-Fe	3.082	3.082	10.27	4.509	20.9
T-Pb	0.005759	0.005759	0.02923	0.013006	0.0538
T-Mn	1.916	1.916	1.79	1.228	6.85
T-Mo	0.1305	0.1305	0.756	0.3429	1.360
T-Se	0.02727	0.02727	0.532	0.0812	0.668
T-Ag	0.0005649	0.0005649	0.002923	0.0013553	0.00541
T-Zn	0.2025	0.2025	0.76	0.426	1.59
D-Al	0.1847	0.1847	6.03	1.0284	7.43
D-Cd	0.0005388	0.0005388	0.001597	0.0011483	0.00382
D-Co	0.01233	0.01233	0.0353	0.02767	0.0876
D-Cu	0.01795	0.01795	0.0813	0.04749	0.165
D-Fe	0.2831	0.2831	2.762	0.7408	4.07
D-Zn	0.1623	0.1623	0.746	0.4021	1.47

4.6.3 Comparison with Metal Loads Carried in Peace River

To provide context for RSEM pond loading, average monthly metal loads for Cd, Cu, and Zn in the Peace River were calculated using available information on Peace River flows and water quality at station PR-2.81 (formerly PR-3.88) to provide benchmarks to which metal loading from Site C (above) can be compared. The dissolved, rather than total, metal fraction measured at PR-2.81 was used in the calculation to minimize the potential

influence of high turbidity water on the metal loading values. These loads are presented in Table 4-14 below. Flow data is available for all calendar months, with a total of 118 samples available in the dataset.

Table 4-14:
Estimated Mean Monthly Load in Peace River (station PR-2.81) for Dissolved Cd, Cu and Zn - 2021

Parameter	Monthly mean loads (kg)											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	n=3	n=2	n=6	n=13	n=19	n=13	n=11	n=7	n=9	n=22	n=8	n=5
D-Cd	43.8	43.0	65.2	624	294	164	86.6	196	88.0	78.8	103	63.7
D-Cu	2,510	2,660	3,010	15,100	9,720	4,430	3,120	5,350	3,380	2,840	3,240	3,360
D-Zn	6,720	8,070	8,340	49,500	44,200	12,100	8,330	15,800	9,410	5,850	6,710	8,310

Notes: n = the number of water quality samples for a given month, data range is from April 2007 to December 2020. Values reported as less than the detection limit were set equal to the detection limit value for loading calculations.

The analysis is considered adequate to provide approximate 'order-of-magnitude' estimates of metal loads carried in the Peace River in the vicinity of the Site C Clean Energy Project, for the purpose of providing some preliminary context for the metal loads discharged from RSEM area sediment ponds. Overall, the metal load contributed from the ponds in 2021 was very minor relative to the metal loads carried by the Peace River.

A comparison of the estimated total annual load of Cd, Cu and Zn discharged from Site C is compared with the estimated annual load of Cd, Cu and Zn carried by the Peace River at Station PR-2.81 is included as Table 4-15 below.

Table 4-15:
Estimated Annual Load Discharged from Site C and Carried by Peace River (station PR-2.81) for Dissolved Cd, Cu and Zn

Parameter	Estimated Annual Load Discharged from Site C (From All Sediment Control Ponds) in 2021 (kg)	Estimated Annual Load Carried by Peace River in 2021 (kg)	Estimated Annual Load Discharged from Site C as Proportion of Annual Load Carried in Peace River (%)
D-Cd	0.0169	1,850	0.0009 %
D-Cu	0.732	58,720	0.001 %
D-Zn	6.79	183,340	0.04 %

5. Conclusions and Summary

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5. Conclusions and Recommendations

5.1 Geochemical Monitoring

The expectation that all bedrock exposed or excavated as part of the Main Civil Works Contract will be PAG, with most units expected to become acidic within one year of disturbance was confirmed by geochemical monitoring undertaken to date. Exposures of bedrock have become acidic at several locations on both the Left Bank and Right Bank. The combined ARD/ML mitigation measures of material placement, water management and water treatment has been effective in limiting the exceedance of discharge limits for waters discharging from the site to the Peace River. In fact, none of the discharges that exceeded the EOP discharge limits in 2021 are attributed to ARD/ML. General observations from 2021 are noted below, followed by the conclusions from the monitoring undertaken on the Left and Right Banks.

5.1.1 General Observations

- A total of 270 ARD samples were collected at the site and analysed for rinse pH. Approximately 10% of the samples were submitted to BV analytical laboratory for ABA and metal content.
- All bedrock ABA samples from both the Left Bank and the Right Bank in 2021 were categorized as AG or PAG. `

5.1.2 Left Bank

- In 2021, 1,763 m^3 of PAG bedrock was excavated on the Left Bank. The excavated PAG material was placed in RSEM Area L5 and RSEM Area R5A.
- The rinse pH results indicated that the majority of material exposed in RSEM Area L5 and L5 Extension remained pH-neutral. Recontouring and placement of cover material on the lower slopes of the facility below the Phase 2 ponds in 2020 has significantly reduced PAG exposure in the facility.
- AG exposures remain near the northwestern edge of the LBEX and along Bench 0 of the LBEX.
- Left bank bedrock samples had total S content up to 0.9 %S. The predominance of sulphate S rather than sulphide-S in AG samples collected from long-time exposures in the LBEX indicate these areas are at an advanced stage of weathering.

5.1.3 Earthfill Dam

- In 2021, 373,977 m^3 of PAG bedrock was excavated on the Earthfill Dam. The excavated PAG material was placed in RSEM Area L5, Zone 8 and RSEM Area R5A.
- The Core Trench Excavation remained non-AG for the duration of the exposure untill it was filled by the Dam Core construction. PAG material placed in Zone 8 showed early signs of ARD progression in 2021 Q3 but has been covered with fresh pH-neutral PAG rock. PAG rock placed as a temporary thermal barrier over the Earthfill Dam Core was tested prior to placement to ensure that it was pH-neutral.
- ABA samples from the core trench contained total S content up to 1.38 %S. The dominant form of sulphur in these samples was sulphide S indicating that the PAG material has stored acid generating capacity.

5.1.4 Right Bank

- On the Right Bank, excavations during 2021 amounted to a total of 1,314,746 m^3 of PAG bedrock, which were predominately removed from the Approach Channel and Spillway. All of the excavated material was deposited in RSEM Area R5A and Zone 8 of the Earthfill Dam.
- The majority of samples collected from RSEM Area R5A in 2021 were either neutral/alkaline or had rinse pH between 5.5 and 7.0. The greatest proportion of AG samples were collected later in the year and were generally clustered at the northwest end of the RSEM area. Continued placement of fresh PAG in Q4 2021 limit AG exposures in RSEM Area R5A. Final grading of the lower slopes below the Phase 2 sediment ponds and placement of the overburden cover material in 2020 has limited PAG exposure around the perimeter of the facility.
- The Approach Channel remained AG through to the beginning of Q4 2021 as documented by consistent measurements of rinse pH < 5.5. Large scale excavation of bedrock from the Approach Channel in the latter portion of Q4 2021 has left a large exposure of fresh bedrock at the end of 2021. Continued monitoring and adaptive water management will be required in this area until final configuration of the Approach Channel is achieved.
- AG exposures remain in the western extent of the Approach Channel and above the R5B-ACDC Ditch. Runoff from these areas are managed by a drainage / pumping system that captures water and directs it to the R5B Phase 2 Sump and ultimately the MWTF.

- The total S content of the bedrock samples collected from shale exposures from the Right Bank through Q3 2021 was typically > 1.0 %S. The dominant form of sulphur in the AG samples from the Approach Channel is sulphate S reflecting the strongly weathered nature of the exposure before renewed excavation in Q4 2021.

5.2 Surface Water Quality Monitoring

The results of surface water quality monitoring have been used to better understand and predict the timing, magnitude and duration of ARD/ML on surface water runoff from the construction site, to measure the effectiveness of mitigation measures, and to verify compliance with RSEM EOP discharge limits and BC WQG. The surface water quality monitoring program is supported by robust QA/QC procedures and includes an intensive sampling and analysis from a dynamic set of stations across the site, as well as from the Earthfill Dam and RSEM Area L5, L6, R5A, and R6 sediment ponds and discharges.

The surface water quality monitoring program has generally been effective. Overall, the QA/QC procedures are well implemented and provide confidence in the monitoring data. The high frequency sampling and laboratory analyses are reliable to allow trends in the RSEM area sediment ponds, and within upgradient catchments, to be identified, and the magnitude and duration of potential effects from ARD/ML to be verified.

Discharge monitoring identified three events where EOP discharge limits (or WQGs, as applicable in the case of the Earthfill Dam) were exceeded:

- a single-day concentration spike of T-Zn from the RSEM Area R6E pond on January 6th;
- multi-day discharge with elevated T-Zn from the RSEM Area R6W sediment pond during cold winter freeze in November and December; and
- discharge from the Earthfill Dam West Sump in early July with an exceedance of T-Fe.

None of these non-compliant events are attributed to the influence of ARD/ML.

Monitoring of water quality in the Area 30 sediment pond also triggered additional monitoring of the Septimus beaver pond to ensure environmental protection in this area.

5.3 Mitigation

Mitigation measures that are being implemented to minimize exceedances of EOP discharge limits due to ARD/ML include material management (excavating weathered rock in excavations and covering weathered rock in the RSEM R5A, RSEM L5 and Earthfill

Dam Zone 8 deposition areas), water management to contain water that may be influenced by ARD/ML, and water treatment to adjust pH and remove total and dissolved metals.

Material management is the primary ARD/ML mitigation strategy on site. Weathered bedrock (material that has been exposed for several months and is becoming acidic) is monitored and periodically excavated from the construction area. In addition, material that is placed in RSEM disposal areas is monitored, and weathered material is covered with newly placed PAG bedrock or overburden.

Water management is a secondary mitigation strategy. Surface water quality is monitored. Contact water is generally contained within the site, or directed to RSEM sediment ponds, from which it is discharged to the Peace River. Contact water that is not anticipated to meet RSEM EOP discharge limits is retained and transferred to the pre-treatment pond. Water from this pond is treated by the Mobile Water Treatment Facility (MWTF) prior to discharge.

On the right bank the MWTF effectively treated water to remove dissolved metals and produced RSEM EOP effluent that met the Discharge Limits. The accumulated sludge in the MWTF reactor and sludge pond was removed and transferred to RSEM Area R5A.

The LBEX waters that are PAG influenced are transferred to the MWTF. Phase 2 RSEM Area L5 sediment control pond discharge met RSEM EOP limits due to regrading and covering of PAG within RSEM Area L5 and L5 Extension.

The implementation of various erosion and sediment control measures at site has reduced the frequency of TSS-related exceedance of EOP discharge limits from RSEM Area sediment ponds since the monitoring program was initiated in autumn 2016.

Elevated pH primarily due to cement and shotcrete contact waters was mitigated by sparging these waters with CO_2. Sparging was implemented in the CVC process waters and RCC Excavation on the Right Bank and at Cell 3 of the MWTF sludge pond.

5.4 Recommendations

In its role as Qualified Professional for ARD/ML, Lorax provided a number of recommendations throughout 2021. These have been communicated in technical memorandums, weekly conference calls, and in email correspondence. Key recommendations are summarized below and reflect ongoing ARD/ML monitoring and management activities. In addition, several recommendations previously made in 2020 remain relevant are reiterated here again for 2021.

5.4.1 Recommendations Extended From 2020 Annual Report

- The geochemical monitoring program is effectively characterizing rock exposures throughout the site. The program should continue to follow recommendations that will be developed in the 2021 ARD/ML sampling plan that outlines adjustments to sampling frequency and locations as site development proceeds.
- The water quality monitoring program should continue to adjust monitoring locations and frequency in tandem with site development, construction activies, weather conditions and in response to monitoring data.
- The current water quality monitoring program includes the collection of daily samples from PAG containing RSEM sediment ponds that are sent to an accredited laboratory where they are analysed for total and dissolved metals, pH, TSS, sulphate, nitrates, conductivity, temperature, and hardness. Appendix E of the CEMP section 7.3.2 requires collection of data at an appropriate interval, sufficient to document changes due to weather events, construction activities, seasonal variability, following adverse events. Exceedance of EOP Discharge Limits for laboratory analytical parameters are typically multi-day events that would be documented by collecting one sample on a two-day frequency. Therefore, based on the regulatory guidance and the duration of exceedances from PAG containing RSEM sediment ponds in 2021, it is recommended that the frequency of sample collection for the laboratory analyses above be reduced from daily to one sample every two days.
- The AG rock exposed in areas adjacent to RSEM Area R5B should be excavated (if within the Approach Channel footprint) or covered with NPAG overburden to limit the ingress of oxygen and water into the AG material. Interim measures to monitor and collect runoff in the R5B sump at the base of the slope and transfer to the MWTF should be continued until final mitigation is implemented.

5.4.2 Recommendations Based on 2021 Monitoring

- Construction is nearing completion on the Right Bank Diversion Ditch above Area 23 and the Approach Channel that extends to the Moberly River. A reconnoitre of the entire length of the diversion ditch should be completed following snow melt to ensure that the excavation has not resulted in extended lengths of exposed bedrock in the base of the ditch. If exposed bedrock is identified, mitigation measures need to be developed and implemented.
- Extensive excavation in the Approach Channel occurred in Q4 2021 and is expected to continue into Q1 2022. The excavation has removed the weathered AG bedrock

that was exposed in this area throughout 2021 and contact water from the Approach Channel is expected to be of suitable quality to initially be discharged through RSEM Area R6 sediment ponds. However, the PAG bedrock has the potential to become AG within six to twelve months after exposure, at which time the exposure will need to be covered or contact water will require treatment before discharge. Recommendations pertaining to the monitoirng and mitigation of the Approach Channel include:

  - Following the standard Q1 2022 rinse pH monitoring, the frequency of rinse pH monitoirng in the Approach Channel should increase to monthly starting in June 2022.
  - Engineering and construction teams need to be reminded of the risk posed by the large PAG exposure and encouraged to scheduled activities to expediate establishment of final extents for the placement of the final Approach Channel surfacing material.
  - If necessary, update the water management system to facilitate directing contact water to the Phase 2 R5B Sump and/or the MWTF.

- Continued construction of the Earthfill Dam in 2021 included placement of PAG bedrock in Zone 8 on the upstream side of the dam. At the end of Q4 2021 convering the PAG exposure with NPAG rock had not been initiated. Although contact water from the PAG in Zone 8 is expected to initially be of suitable quality to be discharged to the Peace River, a set of recommendations similar to those for the Approach Channel are made for Zone 8.
  - Following the standard Q1 2022 rinse pH monitoring, the frequency of rinse pH monitoirng in the Zone 8 should increase to monthly starting in June 2022.
  - Engineering and construction teams need to be reminded of the risk posed by the large PAG exposure and encouraged to scheduled activities to expediate the placement of a NPAG cover on the Zone 8 material.
  - If necessary, update the water management system to facilitate directing contact water to the MWTF.
- Monitoring indicates that PAG bedrock is exposed in L5 Extension. RSEM Area L5 and L5 Extension have reached the material balance capacity. Placement of the final NPAG cover over the exposed PAG in the L5 Extension is recommended to prevent acidic runoff from reporting to the Phase 2 RSEM Area L5 sediment ponds and possibly discharging during snow melt or high rainfall events. The RSEM design requires the final surface cover to be NPAG material rather than fresh PAG

material to reduce the amount of PAG-influenced runoff and lower risk of a water treatment requirement through to the end of construction when the final mitigation will be applied.

- Construction of the Earthfill Dam Core was halted in Q4 2021 due to freezing conditions. A three metre thick thermal barrier that included PAG material was temporaily placed over the Dam Core to limit frost penetration. Lorax made the following recommendations regarding placement and removal of the Thermal Barrier:
  - Ensure that the the PAG rock is not AG when placed by conducting rinse pH monitoring.
  - Remove thermal cover in or before March 2022 and conduct visual monitoring to confirm no residual PAG left in the Dam Core.
- Water quality samples were recommended to be collected from the Area A dewatering sump.
- Water quality monitoring was recommended in the Septimus beaver pond (wetlands) adjacent to the Area 30 riprap stockpiles. Monitoring at the Area 30 sediment pond and 8 locations within the wetland was completed to assess the risk of Se impacting the adjacent wetlands. Although the November 2021 monitoring event indicated that the BC water quality guidelines for selenium were not exceeded in the wetland, it is recommended that additional monitoring excursions be completed in the wetland in April and June 2022 at the same locations that were sampled in November 2021 to confirm that Se remains at acceptable levels throughout the wetland. In the event that the 2022 monitoring indicates that the Se leaching potential is unacceptable, the water management ponds in Area 30 should be converted into zero-discharge holding ponds if required.
- It was recommended that water accumulations in the R5B Sump that meet RSEM EOP limits continue to be trucked to an RSEM sediment control pond to provide surge capacity for the storage of PAG contact runoff from the Approach Channel and areas west of the Approach Channel and not unnecessarily overwhelm the MWTF.
- Prior to the establishment of the Earthfill Dam West Sump and dewatering directly to the Peace River, the following actions were recommended to confirm the quality of the Upstream Coffer Dam Seep prior to initiating discharge.
  - Establish a seepage water quality sample location where the seepage emerges from the Upstream Coffer Dam.

- Monitor the seepage quality daily for field parameters pH, temperature, conductivity, and turbidity.
- Collect three water samples over a 3-5 day period and test for the standard set of laboratory analyses for PAG contact waters to establish the expected seepage water quality.
- Thereafter, collect weekly water samples and test for the standard set of laboratory analyses for PAG contact waters to confirm the seepage water quality.
- Review the 2021 Q2 Dam Core rinse pH measurements to assess the onset of acid generation for the potentially acid generating (PAG) bedrock in the Dam Core.

6. Closure

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6. Closure

This report was prepared for the use of PRHP, which has the right to reproduce, use and rely upon this ARD/ML Management 2021 Annual report in planning, construction and reporting for the Site C Clean Energy Project. The report was prepared by the Lorax technical personnel listed below based on information provided by PRHP site personnel, observations during site visits and test results reported by ALS and BV analytical laboratories. Please contact the undersigned should you have any questions or concerns or require additional information in support of this work.

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List of Appendices

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Appendix 1-A: 2021 RSEM Sediment Control Pond Daily Discharge

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Appendix 1-A: 2021 RSEM Sediment Control Pond Daily Discharge							
Date	**RSEM-R5A**	**RSEM-R5B**	**RSEM-R6E**	**RSEM-R6W**	**RSEM-L5E**	**RSEM-L5W**	**RSEM-L6**
	Discharge (L/s) (No value is reported on days when no flow was observed)						
2021-01-01			4.68	7.13			
2021-01-02			5.31	7.66			
2021-01-03			4.49	7.02			
2021-01-04			5.15	4.98			
2021-01-05			4.14	5.47			
2021-01-06			3.47	4.84			
2021-01-07			2.55	5.57			
2021-01-08			3.66	5.32			
2021-01-09			4.02	4.79			
2021-01-10			4.50	5.16			
2021-01-11			7.28	7.43			
2021-01-12			5.72	6.49			
2021-01-13			6.83	4.97			
2021-01-14			4.35	4.82			
2021-01-15			5.01	4.56			
2021-01-16			3.93	4.52			
2021-01-17			4.56	4.79			
2021-01-18			2.41	4.70			
2021-01-19			6.09	4.84			
2021-01-20			5.40	4.79			
2021-01-21			5.57	5.01			
2021-01-22			4.73	5.01			
2021-01-23			5.48	4.80			
2021-01-24			5.08	4.54			
2021-01-25			4.07	2.29			
2021-01-26			9.11				
2021-01-27			8.83				
2021-01-28			8.99				
2021-01-29			6.90				
2021-01-30			7.63				
2021-01-31			8.52				
2021-02-01			7.83				
2021-02-02			4.17				
2021-02-03			0.40				
2021-02-04							
2021-02-05			0.12	1.00			
2021-02-06			2.37	6.20			
2021-02-07			0.31	7.56			
2021-02-08				8.68			
2021-02-09			0.50	12.37			
2021-02-10			0.50	13.26			
2021-02-11			0.50	13.57			
2021-02-12			0.50	10.93			
2021-02-13			0.50	7.30			
2021-02-14			0.50	5.35			
2021-02-15				5.50			
2021-02-16				5.57			
2021-02-17				5.54			
2021-02-18			0.06	5.80			
2021-02-19			2.02	6.95			
2021-02-20			1.46	8.52			
2021-02-21			7.11	6.66			
2021-02-22			6.36	0.93			
2021-02-23			4.33				
2021-02-24			3.72	2.00			
2021-02-25			1.21	9.50			
2021-02-26				9.95			
2021-02-27				8.71			
2021-02-28			0.10	20.32			
2021-03-01			0.50	61.78			
2021-03-02			0.50	100.50			
2021-03-03			0.50	67.73			
2021-03-04			0.50	89.42			
2021-03-05			0.50	55.08			
2021-03-06			12.21	24.37			
2021-03-07			7.07				
2021-03-08			12.32	46.41			
2021-03-09			3.59	64.40			
2021-03-10			1.92	55.04			
2021-03-11			0.10	50.91			
2021-03-12			2.02	49.52			
2021-03-13			1.54	48.36			
2021-03-14			2.89	47.07			

Appendix 1-A: 2021 RSEM Sediment Control Pond Daily Discharge							
Date	**RSEM-R5A**	**RSEM-R5B**	**RSEM-R6E**	**RSEM-R6W**	**RSEM-L5E**	**RSEM-L5W**	**RSEM-L6**
	Discharge (L/s) (No value is reported on days when no flow was observed)						
2021-03-15			8.85	42.72			
2021-03-16			5.46	48.53			
2021-03-17			7.85	50.58			
2021-03-18			6.19	48.83			
2021-03-19			5.74	50.22			
2021-03-20			5.87	47.36			
2021-03-21			2.13	44.86			
2021-03-22			2.18	48.42			
2021-03-23			0.50	44.99			
2021-03-24			0.26	43.67			
2021-03-25			0.56	44.03			
2021-03-26			1.71	45.20			
2021-03-27			4.71	45.73			
2021-03-28			6.07	64.39			
2021-03-29			1.27	70.20			
2021-03-30			1.71	69.34			
2021-03-31			7.03	71.12			
2021-04-01			10.32	67.83			
2021-04-02			9.21	74.75			
2021-04-03			7.75	68.50			
2021-04-04			12.65	19.03			
2021-04-05			23.67	23.82			
2021-04-06			12.39	69.72			
2021-04-07			13.26	67.01			
2021-04-08			13.52	64.74			
2021-04-09			13.96	65.36			
2021-04-10			13.81	60.86			
2021-04-11			8.17	65.42			
2021-04-12			1.23	68.77			
2021-04-13			2.56	66.47			
2021-04-14			4.90	31.74			
2021-04-15			24.48				
2021-04-16			30.59				
2021-04-17			14.64	12.50			
2021-04-18			19.93	30.00			
2021-04-19			23.18	25.00			
2021-04-20			10.56	20.00			
2021-04-21			2.82	25.00			
2021-04-22			0.57	21.00			
2021-04-23			0.35	30.00			
2021-04-24			3.92	25.00			
2021-04-25			3.60	25.00			
2021-04-26			0.11	28.00			
2021-04-27			3.16	25.00			
2021-04-28			8.40	40.50			
2021-04-29			7.40	37.12			
2021-04-30			4.51	34.58			10.62
2021-05-01				29.36			
2021-05-02			0.78	32.85			
2021-05-03			7.48	37.49			
2021-05-04			7.89	36.01			
2021-05-05			0.51	35.01			
2021-05-06			1.00	34.97			
2021-05-07			1.00	35.67			
2021-05-08			1.00	38.15			
2021-05-09			4.35	33.41			
2021-05-10			11.59	31.85			
2021-05-11			8.00	30.41			
2021-05-12			4.54	29.80			
2021-05-13			6.29	31.58			
2021-05-14			1.37	37.13			
2021-05-15			0.20	33.33			
2021-05-16			0.20	29.51			
2021-05-17			0.20	33.97			
2021-05-18			8.42	40.18			
2021-05-19			9.25	40.75			
2021-05-20			3.73	39.60			
2021-05-21			1.00	39.97			
2021-05-22			0.20	38.19			
2021-05-23			0.10	33.88			
2021-05-24			0.50	29.19			
2021-05-25			4.01	38.09			
2021-05-26			7.39	34.24			

Appendix 1-A: 2021 RSEM Sediment Control Pond Daily Discharge							
Date	**RSEM-R5A**	**RSEM-R5B**	**RSEM-R6E**	**RSEM-R6W**	**RSEM-L5E**	**RSEM-L5W**	**RSEM-L6**
	Discharge (L/s) (No value is reported on days when no flow was observed)						
2021-05-27			7.01	36.88			
2021-05-28			21.94	32.70			
2021-05-29			3.53	32.92			
2021-05-30			1.00	29.06			
2021-05-31			1.00	26.81			
2021-06-01			0.01	28.50			
2021-06-02			0.01	28.22			
2021-06-03			0.01	20.45			
2021-06-04			0.10	19.66			
2021-06-05			4.26	20.31			
2021-06-06			2.84	19.62			
2021-06-07			7.69	26.16			
2021-06-08			3.83	23.71			
2021-06-09			5.30	22.55			
2021-06-10			1.00	20.92			
2021-06-11			0.20	21.49			
2021-06-12			0.05	21.18			
2021-06-13				19.51			
2021-06-14				22.46			
2021-06-15			0.10	24.79			
2021-06-16			6.26	33.94			
2021-06-17			13.11	36.72			
2021-06-18			4.56	32.28			
2021-06-19			1.65	25.61			
2021-06-20			0.50	22.53			
2021-06-21			0.20	21.66			
2021-06-22			0.01	23.75			
2021-06-23				25.58			
2021-06-24				25.91			
2021-06-25				26.54			
2021-06-26				26.69			
2021-06-27				26.69			
2021-06-28				27.72			
2021-06-29				26.47			
2021-06-30				26.24	4.00		
2021-07-01				26.73	4.00		
2021-07-02				20.54	0.20		
2021-07-03				21.59	0.02		
2021-07-04				22.23			
2021-07-05				21.52			
2021-07-06				15.43			
2021-07-07				13.34			
2021-07-08				12.56			
2021-07-09				13.12	0.10		
2021-07-10				13.51	2.00		
2021-07-11				13.15	2.00		
2021-07-12				12.57	2.00		
2021-07-13				11.94	4.00		
2021-07-14				11.87	4.00		
2021-07-15				17.69	4.00		
2021-07-16				19.81	0.01		
2021-07-17			4.22	22.98	0.01		
2021-07-18			4.43	4.99	0.01		
2021-07-19			0.50	23.00	0.02		
2021-07-20			4.19	23.50	0.02		
2021-07-21			13.39	26.00	0.02		
2021-07-22			9.25	6.21	0.02		
2021-07-23			8.55	31.56	0.02		
2021-07-24			3.30	33.64	0.02		
2021-07-25			0.61	32.85			
2021-07-26				30.37			
2021-07-27				27.59			
2021-07-28				29.14			
2021-07-29				28.98			
2021-07-30				19.92			
2021-07-31				14.66			
2021-08-01				15.37			
2021-08-02				10.35			
2021-08-03				19.66			
2021-08-04				19.07			
2021-08-05			3.50	5.10			
2021-08-06			7.93	15.00			
2021-08-07			8.40	19.00			

Appendix 1-A: 2021 RSEM Sediment Control Pond Daily Discharge							
Date	**RSEM-R5A**	**RSEM-R5B**	**RSEM-R6E**	**RSEM-R6W**	**RSEM-L5E**	**RSEM-L5W**	**RSEM-L6**
	Discharge (L/s) (No value is reported on days when no flow was observed)						
2021-08-08			8.03	18.30			
2021-08-09			6.95	19.60			
2021-08-10			6.71	17.50			
2021-08-11			4.49	24.50			
2021-08-12			2.89	16.60			
2021-08-13			3.23	24.50			
2021-08-14			11.25	20.00			
2021-08-15			11.97	18.00			
2021-08-16			10.76	18.00			
2021-08-17			15.53	20.00			
2021-08-18			15.27	18.00			
2021-08-19			22.72	20.00			
2021-08-20			17.84	15.00			
2021-08-21			20.45	20.00			
2021-08-22			18.57	18.00	4.00		
2021-08-23			12.66	18.00	1.00		
2021-08-24			8.94	17.00	2.00		
2021-08-25			8.52	20.30	1.00	0.10	
2021-08-26			8.21	19.00	1.50	0.10	
2021-08-27			3.65	17.60		0.50	
2021-08-28			11.63	19.50		0.50	
2021-08-29			4.10	19.80		1.50	
2021-08-30			10.27			1.00	
2021-08-31			21.31	23.80		1.00	
2021-09-01			13.86	20.10		0.50	
2021-09-02			7.30	18.00		0.50	
2021-09-03			8.13	21.00		0.50	
2021-09-04			10.78	17.30		0.20	
2021-09-05			14.12	17.00	0.10	0.10	
2021-09-06			13.77	16.30	0.10	0.03	
2021-09-07			13.71	16.80	0.10		
2021-09-08			14.80	16.90	0.10		
2021-09-09			14.58	16.80	0.10		
2021-09-10			13.39	17.40	0.10		
2021-09-11			12.90	17.20	0.10		
2021-09-12			12.61	13.70	0.10		
2021-09-13			12.75	10.50	4.00		
2021-09-14			12.79	21.50	8.00		
2021-09-15			14.14	19.90	9.00		
2021-09-16			12.98	19.40	9.00		
2021-09-17			15.29	16.90	9.00		
2021-09-18			13.43	20.50	9.00		
2021-09-19			13.28	19.50	5.00		
2021-09-20			13.74	19.90	0.05		
2021-09-21			13.50	16.80	5.75		
2021-09-22			13.29	15.30	11.50		
2021-09-23			13.97	19.30	11.50		
2021-09-24			13.45	22.10	11.50		
2021-09-25			26.25	13.90	11.50		
2021-09-26			16.81		3.95		
2021-09-27			23.50	13.20			
2021-09-28			15.60	15.00			
2021-09-29			15.79	24.40			
2021-09-30			15.90	16.00			
2021-10-01			14.59	15.20			
2021-10-02			15.31	6.50			
2021-10-03			14.29	6.50			
2021-10-04			14.20	5.50			
2021-10-05			14.92	6.70			
2021-10-06			16.92	9.80			
2021-10-07			8.77	5.10			
2021-10-08			4.34	3.32			
2021-10-09			10.70	4.93			
2021-10-10			15.24	2.87			
2021-10-11			15.20	3.31			
2021-10-12			14.99	12.16			
2021-10-13			15.00	15.74			
2021-10-14			14.83	18.07			
2021-10-15			14.81	16.09			
2021-10-16			15.35	9.01			
2021-10-17			14.69	7.15			
2021-10-18			16.44	8.55			
2021-10-19			25.36	9.01			

Appendix 1-A: 2021 RSEM Sediment Control Pond Daily Discharge							
Date	**RSEM-R5A**	**RSEM-R5B**	**RSEM-R6E**	**RSEM-R6W**	**RSEM-L5E**	**RSEM-L5W**	**RSEM-L6**
	Discharge (L/s) (No value is reported on days when no flow was observed)						
2021-10-20			23.66	7.45			
2021-10-21			20.79	8.11			
2021-10-22			14.72	16.72			
2021-10-23			11.36	19.59			
2021-10-24			17.66	20.72			
2021-10-25			15.79	21.30			
2021-10-26			17.12	18.38			
2021-10-27			13.47	12.87			
2021-10-28			10.35	11.35			
2021-10-29			14.75	15.44			
2021-10-30			19.42	15.72			
2021-10-31			16.11	15.70			
2021-11-01			10.73	15.99			
2021-11-02			9.53	16.36			
2021-11-03			9.37	16.37			
2021-11-04			11.05	16.94			
2021-11-05			18.00	19.86			
2021-11-06			17.03	14.29			
2021-11-07			12.72	7.52			
2021-11-08			11.19	8.70			
2021-11-09			10.00	5.24			7.08
2021-11-10			9.44	7.35			4.58
2021-11-11			9.33	4.56			
2021-11-12			9.33	9.00			
2021-11-13			9.33	9.79			
2021-11-14			8.91	6.41			
2021-11-15			8.86	5.32			
2021-11-16			8.74	8.90			
2021-11-17			8.79	9.90			
2021-11-18			9.83	6.15			
2021-11-19			11.09	5.78			
2021-11-20			9.73	6.92			
2021-11-21			9.35	6.84			
2021-11-22			9.22	6.72			
2021-11-23			8.78	6.15			
2021-11-24			9.74	5.82			
2021-11-25			8.97	5.63			
2021-11-26			9.60	5.13			
2021-11-27			9.38	5.05			
2021-11-28			9.19	3.36			
2021-11-29			9.17	1.36			
2021-11-30			9.15	1.76			
2021-12-01			9.47	7.75			
2021-12-02			10.20	3.01			
2021-12-03			9.33	3.10			
2021-12-04			6.23	2.89			
2021-12-05				1.84			
2021-12-06				5.91			
2021-12-07			0.83	1.67			
2021-12-08			9.90	1.91			
2021-12-09			9.49	4.75			
2021-12-10			9.47	5.68			
2021-12-11			4.68	4.86			
2021-12-12			2.12	2.02			
2021-12-13				0.01			
2021-12-14							
2021-12-15							
2021-12-16				5.07			
2021-12-17				10.49			
2021-12-18				13.01			
2021-12-19				12.71			
2021-12-20				2.75			
2021-12-21				1.87			
2021-12-22				2.44			
2021-12-23				0.70			
2021-12-24				0.42			
2021-12-25				0.20			
2021-12-26				2.61			
2021-12-27				4.15			
2021-12-28				5.75			
2021-12-29				2.92			
2021-12-30				3.12			
2021-12-31				2.28			

Appendix 2-A: Bureau Veritas Analytical QA/QC Program

PEACE RIVER
HYDRO PARTNERS



Bureau Veritas Laboratories

Quality Assurance & Quality Control

COR FCD-00180 / 4

Move Forward with Confidence

BUREAU VERITAS

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1.0 Laboratory Company Profile

Founded over 45 years ago, Bureau Veritas Laboratories is the market leader in analytical services and solutions to the energy, environmental, food and DNA industries. Our 2,200 dedicated employees proudly lead the industry in depth of technical and scientific expertise and serve customers through the only national network of laboratories. In processing over 2.4 million samples and generating in excess of 43 million results annually, we skilfully combines efficiency and customer service with rigorous science and uncompromising quality management. We are committed to success with responsibility – to its stakeholders, to its communities, and to the environment.

Our Mission is clear - We are a science company that is passionately committed to delivering good science through exceptional service.

A major focus is analytical services for an exhaustive list of environmental contaminants. Solid wastes, effluents, potable water, receiving waters, ground waters, soils, sediments, stack emissions, ambient air, plant, animal and fish tissues are analysed for everything from pH to Dioxins.

We provides these services to a wide range of customers, in North America and over 20 foreign countries. Our clients include consulting engineers, industry, businesses, all levels of government as well as private individuals.

Our laboratories function as a tight network operating under a single Quality Management System, utilizing the strengths of each and working together to ensure customer requirements are met. All major laboratories provide the full range of environmental testing services using a uniform Quality System and IT infrastructure to deliver a standardized high quality service across the country. In addition, certain locations have special areas of expertise, such as seawater analysis at our Burnaby and Bedford facilities and High Resolution Dioxin analysis in our Mississauga and Ville St-Laurent facilities.

Operating within one Laboratory Information and Quality System across Canada provides uniform report formats, management performance measurements, turnaround time measurements, corrective action management, and a number of other key performance indicators making us a reliable partner.

2.0 Quality Program

Bureau Veritas Laboratories currently employs 40 full-time Quality Assurance (QA) staff. This group reports to the Senior Quality Assurance Manager, whose responsibility it is to ensure consistency of approach and program independence from operations. The QA team is strengthened through a web-based document control and management system that ensures consistent formats while minimizing routine administrative tasks. Authorized staff have immediate secure access to all corporate and individual laboratory SOPs and support documentation.

The Quality Program is designed to comply with or exceed the data quality objectives of Industry, Canadian Regulators, United States EPA and the International Standards Organization (ISO). The QA team is assisted in performing audits with the help of many trained "internal auditors" that are composed of operations and support services personnel. This brings many benefits to the customer and to our company. These benefits include improved client and accreditation audits, increased communication between groups within our company, greater variety of work for staff and increased understanding of ISO/IEC 17025 customer and our own quality requirements.

The keys to the Quality Program are Prevention and Verification.

2.1 Prevention through Quality Assurance

Extensive control charting practices ensure that analyses with biases or which are potentially out of control are recognized early so that potential problems can be rectified before exceedences occur. Comprehensive internal audits of methods, Quality Control (QC) practices, sample analyses, and quality system elements confirm adherence to Standard Operating Procedures. Regular system reviews and a structured Continuous Improvement Program combine to provide the strongest possible Quality System.

Evaluated monthly, score carding of key performance indicators such as Proficiency Testing Performance, Corrective Action Reports, Nonconformance Reports and Method Audits, drives the Program, defining successes and highlighting areas for improvement. We also have a corporate Management of Change procedure whereby substantive changes in the laboratory are adequately reviewed, communicated and documented.

2.2 Training

Upon hire, personnel are required to participate in the Corporate New Employee Orientation Program (NEOP) where they are trained on the quality management system, Ethics & Integrity, and the Environment, Health and Safety program. In addition to their initial training, they are provided technical training, delivered by designated individuals (supervisor or senior analyst level) with comprehensive working knowledge and experience in the area they are training. To ensure full traceability and auditability, training records for all employees are maintained in our online

document control system and in the employee's personal training file, which is maintained by his/her supervisor.

Analyst competence is essential to the production of accurate data. Prior to beginning work in the laboratory, technicians and analysts are required to thoroughly understand the QA objectives and the relevant SOP. This, in conjunction with hands-on training from a senior analyst, ensures successful transfer of information is effective. Demonstration of acceptable performance on laboratory control samples or reference materials by the analyst is required for final certification to perform the method. Ongoing demonstration of capability is provided through blind performance evaluation samples, audits and annual recertification.

2.3 Customer Complaints

Formal responses are required to any customer complaints, discrepancies, deficiencies or quality issues. The deficiencies are recorded in an electronic database and cascade to the supervisor and the analyst for immediate attention. An acknowledgment of the deficiency is required within a specified timeframe accompanied by an action plan, which must include any corrective measures taken along with results of these actions. A follow-up report on the same form must be completed and returned documenting the effectiveness of the improvements implemented. If closure of the issue is not done in the required timeframe the issue is escalated to the next management level promoting prompt resolution of the issue. The effective response to client issues is score-carded as a key performance indicator.

2.4 Ethics and Data Integrity

All employees are required to undergo annual ethics training and to read and sign an Ethics and Data Integrity Agreement annually, promising to not knowingly commit an unethical act or through inaction, allow a coworker to do so. Senior management reinforces the program through presentations, discussion and written tests.

2.5 Verification through Quality Control

Public safety, environmental impact and major financial decisions are routinely based on our analytical data. Legal data defensibility is essential to these activities and is verified through a comprehensive quality control program. The protocols and procedures described below are routinely employed and are described in detail in our Standard Operating Procedures (SOPs) for analysis, laboratory practice and staff training. The quality assurance objectives are translated into specific requirements that are written into all standard operating procedures.

2.6 Quality Control Protocols

Each project is conducted under a defined quality control program. Our standard quality control protocols meet or exceed the requirements of Canadian and United States regulators. In addition

to this, most large projects have a defined Quality Assurance Project Plan (QAPP) that includes all required data quality objectives. The following table outlines the quality control practices routinely employed in all laboratories. Additional elements or different limits may be used on a project specific basis.

Elements of Quality Control		
Element	**Frequency**	**Limits***
Field QC		
Sample Containers	Precleaned to EPA Spec's	Non Detect
Traveling Blanks	Project Specific	<RDL
Field Duplicates	Project Specific	Project Specific
Run QC, All Methods		
Method Blanks	1 in 20 or 1/batch	<RDL
Blank Spikes	1 in 20 or 1/batch	CCME or Provincial limits
Matrix Spikes	1 in 20 or 1/batch	CCME or Provincial limits
Duplicates Analysis	1 in 20 or 1/batch	± 20%-50%
Real Time Control Charts	Key parameters, all tests	± 3 SD, trend analysis
Inorganic QC		
Instrument Calibration	Multipoint Daily	>0.995 correlation
Calibration Verification	Daily (second source)	± 10% of initial
Continuing Cal. Verification	Every 20 samples & at end	± 10% of initial
Standard Reference Material	Daily – As Required (if available)	SRM limits
Organic QC		
Instrument Calibration	Multipoint	RSD ± 20%
Calibration Verification	Daily (second source)	± 20% of initial
Continuing Cal. Verification	Verified every 12 hr	RF or RRF ± 30% of initial
Surrogate Standards	All samples, all organic analyses	CCME or Provincial limits
Internal Standards (IS)	All Samples (method specific)	-50% to +100% of IS in Cal'n
Standard Reference Material	As required (if available)	SRM limits
External QC		
Interlaboratory Comparisons	>50/year	Top 10% overall, >95% acceptable
Double Blind Program	Annually (Inorganic and Organic where applicable)	Statistical Limits
Internal QC Checks	As required	In house limits

* Typical QC acceptance criteria. Values may vary for specific tests.

2.7 Accreditation

Bureau Veritas Laboratories hold several accreditations granted by Canadian and United States regulatory organizations. The intent of accreditation is to document through laboratory audit, check samples, and round robin studies, each laboratory's conformance to ISO/IEC 17025, an internationally accepted quality system. The accreditation process is also an integral part of our philosophy of Continuous Improvement. The following organizations have endorsed our quality

system. These endorsements are granted on a facility specific basis. In addition, many tier one industries have audited and approved our laboratories.

- Canadian Association for Laboratory Accreditation (CALA)
- Standards Council of Canada (SCC)
- Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC)
- National Environmental Laboratory Accreditation (NELAC)
- U.S. Environmental Protection Agency Contract Laboratory
- American Industrial Hygiene Association (AIHA)
- Various US States

2.8 Proficiency Testing

Our laboratories participate in many national and international proficiency testing and double blind check sample programs. As per ISO 17025 requirements, we are required to successfully participate in proficiency testing programs for tests included on our scope of accreditation. We go above and beyond these minimum requirements. Some of the programs we are currently participating include:

- Corporate Double Blind Program
- Canadian Association for Laboratory Accreditation (CALA)
- AWAC
- CMPT
- NWRI (Env. Canada)
- NAPT
- WUCMUC
- State of New York – Environmental Laboratory Approval Program

2.9 Double Blind Program

The Double Blind Program was implemented to measure the quality of data and service provided to customers. Proficiency testing samples are required as part of standard accreditation programs (ISO 17025), however they do not adequately simulate lab performance for client samples since the lab knows it is being tested. The double blind program involves using a sample from an accredited proficiency-testing provider and having the sample “disguised” as a client sample so the lab is completely unaware their performance is being evaluated. The sample is sent to our laboratories as a regular sample, which upon completion is assessed by the Quality Assurance Department for turnaround time (TAT), data accuracy and traceability. This program best simulates lab performance for real client samples.

2.10 Customer Service / Project Management

The quality process extends beyond accreditations, methods and staff expertise. It includes the management system for all activities from project awards to follow-up customer satisfaction

surveys. The heart of the process is the Project Management (PM) team, the largest laboratory customer service team in Canada. This team consists of dedicated professionals whose responsibility it is to ensure the customer gets the tests meeting their requirements, when promised. Project managers are also aware of current and emerging regulations and thus are able to assist customers in choosing the correct testing protocol.

Supporting the PM team is our unique Laboratory Information Management System (MaxxLIMS). MaxxLIMS tracks and monitors all project information and provides a direct link between analysis and reporting. Employing barcodes, MaxxLIMS monitors each sample's progress through the lab as it is received and logged, extracted, analyzed and the resulting data is approved, validated and reported. Comprehensive sample tracking, combined with instrument capacity and staff commitment to customer service, allows clients to be confident in our ability to deliver quality data on time. Customer feedback and PM process insight has driven a number of innovations, mostly made possible through MaxxLIMS.

- Client website access to approved data
- Client website access to project status
- On line bottle orders
- Sample integrity forms
- Custom electronic and hard copy deliverables packages.
- Regulatory reports
- Consolidated invoicing
- Project summary performance reports
- Real time, automated sample log-in and data checks

2.11 The Quality Promise

The Quality Pyramid summarizes our quality promise to our customers. Each component of the pyramid strengthens the overall customer experience and ultimately converges at a single point, the promise to deliver accurate, defensible data to our clients.



Appendix 2B: 2021 Geochemistry Results

PEACE RIVER
HYDRO PARTNERS

Table 1: 2021 Rinse pH Results

Sample Location	Sample ID	Sample Type	Material Type	Sulphides Visible	Overburden Type	Easting_m	Northing_m	Date Sampled	Date Analyzed	Operator	Rinse_pH	Notes
Left Bank												
RSEM L5	L5-2021-May-04-77	RSEM Pile	Weathered Bedrock	Yes		628790.7	6231056	4-May-21	7-May-21	Axel Chore	8.26	
RSEM L5	L5-2021-May-04-78	RSEM Pile	Weathered Bedrock	Yes		628744.2	6231129.9	4-May-21	7-May-21	Axel Chore	9.04	
RSEM L5	L5-2021-May-04-79	RSEM Pile	Weathered Bedrock	No		628664.6	6231184.2	4-May-21	7-May-21	Axel Chore	9.14	
RSEM L5	L5-2021-May-04-80	RSEM Pile	Weathered Bedrock	Yes		628612.2	6231306.1	4-May-21	7-May-21	Axel Chore	8.28	Sample Duplicate: 8.27
RSEM L5	L5-2021-May-04-81	RSEM Pile	Weathered Bedrock	Yes		629071.5	6230682.1	4-May-21	7-May-21	Axel Chore	8.33	
RSEM L5	L5-2021-Jul-25-70	Exposed Surface	Weathered Bedrock	No		629030	6230539.7	25-Jul-21	27-Aug-21	Axel Chore	7.29	Sample Duplicate: 7.28<NL>RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5-2021-Jul-25-71	RSEM Pile	Weathered Bedrock	No		628967	6230666	25-Jul-21	27-Aug-21	Axel Chore	8.04	Sandy material. Near west side of east pond. Sulphides present.
RSEM L5	L5EX-2021-Jul-25-72	RSEM Pile	Weathered Bedrock	No		628614	6231140.8	25-Jul-21	28-Aug-21	Axel Chore	8.55	
RSEM L5	L5EX-2021-Jul-25-73	RSEM Pile	Weathered Bedrock	No		628638	6231143.2	25-Jul-21	27-Aug-21	Axel Chore	9.64	Sandy material. Sulphides present. West side of the west pond channel.
RSEM L5	L5EX-2021-Jul-25-74	RSEM Pile	Weathered Bedrock	Yes		628595	6231349	25-Jul-21	27-Aug-21	Axel Chore	8.11	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate. Near flowing stream.
RSEM L5	L5EX-2021-Jul-25-75	RSEM Pile	Weathered Bedrock	Yes		628609	6231355.6	25-Jul-21	27-Aug-21	Axel Chore	7.93	Sample Duplicate: 7.28 <NL>RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate. Near flowing water.
RSEM L5	L5EX-2021-Jul-25-76	RSEM Pile	Weathered Bedrock	Yes		628607	6231297.1	25-Jul-21	27-Aug-21	Axel Chore	8.19	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate. Road material.
RSEM L5	L5EX-2021-Jul-25-77	RSEM Pile	Weathered Bedrock	Yes		628653	6231284.6	25-Jul-21	27-Aug-21	Axel Chore	7.08	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Jul-25-78	RSEM Pile	Weathered Bedrock	Yes		628720	6231167.6	25-Jul-21	27-Aug-21	Axel Chore	8.41	
RSEM L5	L5EX-2021-Jul-25-79	RSEM Pile	Weathered Bedrock	No		628720	6231126.8	25-Jul-21	27-Aug-21	Axel Chore	8.06	
RSEM L5	L5-2021-Jul-26-84	RSEM Pile	Weathered Bedrock	Yes		628949	6230946	26-Jul-21	27-Aug-21	Axel Chore	8.41	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5-2021-Jul-26-85	RSEM Pile	Weathered Bedrock	Yes		629086	6230662.8	26-Jul-21	27-Aug-21	Axel Chore	8.61	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5-2021-Jul-26-86	RSEM Pile	Weathered Bedrock	No		629119	6230554	26-Jul-21	27-Aug-21	Axel Chore	7.72	RSEM PAG pile. Black coloured PAG. Contents contain aggregate.
RSEM L5	L5EX-2021-Jul-26-83	RSEM Pile	Weathered Bedrock	Yes		628856	6230955.6	26-Jul-21	27-Aug-21	Axel Chore	3.64	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Jul-25-80	RSEM Pile	Weathered Bedrock	Yes		628693	6231148.7	25-Aug-21	27-Aug-21	Axel Chore	8.04	Sample Duplicate: 8.04<NL> RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Jul-26-81	RSEM Pile	Weathered Bedrock	Yes		628770	6231069.2	26-Aug-21	27-Aug-21	Axel Chore	8.25	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Jul-26-82	RSEM Pile	Weathered Bedrock	Yes		628822	6231036	26-Aug-21	27-Aug-21	Axel Chore	8.43	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5-2021-Oct-13-18	RSEM Pile	Weathered Bedrock	Yes		629065.5	6230670	13-Oct-21	8-Nov-21	Axel Chore	7.89	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5-2021-Oct-13-19	RSEM Pile	Weathered Bedrock	Yes		629088.3	6230619	13-Oct-21	6-Nov-21	Axel Chore	8.79	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5-2021-Oct-13-20	RSEM Pile	Weathered Bedrock	Yes		629144	6230507.6	13-Oct-21	6-Nov-21	Axel Chore	8.76	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-08	RSEM Pile	Transition (0-15% shale)			628648.7	6231149.5	13-Oct-21	6-Nov-21	Axel Chore	8.5	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-09	RSEM Pile	Transition (15-30% shale)			628583.1	6231343.1	13-Oct-21	6-Nov-21	Axel Chore	7.76	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-10	RSEM Pile	Transition (15-30% shale)			628632.9	6231296.8	13-Oct-21	6-Nov-21	Axel Chore	8.25	Sample Duplicate: 8.26<NL>RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-11	RSEM Pile	Transition (15-30% shale)			628697.3	6231251.7	13-Oct-21	6-Nov-21	Axel Chore	9.4	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-12	RSEM Pile	Transition (15-30% shale)			628734.6	6231171.6	13-Oct-21	6-Nov-21	Axel Chore	8.49	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-13	RSEM Pile	Transition (15-30% shale)			628723.9	6231128.2	13-Oct-21	6-Nov-21	Axel Chore	8.15	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-14	RSEM Pile	Transition (15-30% shale)			628764.2	6231063	13-Oct-21	6-Nov-21	Axel Chore	8.43	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-15	RSEM Pile	Transition (15-30% shale)			628793.8	6231119.5	13-Oct-21	6-Nov-21	Axel Chore	8.51	Sample Duplicate: 8.49<NL>RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-16	RSEM Pile	Transition (15-30% shale)			628814	6231024.5	13-Oct-21	6-Nov-21	Axel Chore	8.29	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM L5	L5EX-2021-Oct-13-17	RSEM Pile	Transition (15-30% shale)			628951.4	6230942.8	13-Oct-21	6-Nov-21	Axel Chore	8.53	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
Left Bank Excavation	LBEX-2021-Apr-08-52	Exposed Surface	Weathered Bedrock	No		629715.9	6230357.7	8-Apr-21	1-May-21	Axel Chore	7.02	
Left Bank Excavation	LBEX-2021-Apr-08-53	Exposed Surface	Weathered Bedrock	No		629753	6230320.3	8-Apr-21	1-May-21	Axel Chore	4.52	
Left Bank Excavation	LBEX-2021-Jul-25-52	Exposed Surface	Weathered Bedrock	No		629758	6230307.7	25-Jul-21	27-Aug-21	Axel Chore	7.26	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Left Bank Excavation	LBEX-2021-Jul-25-53	Exposed Surface	Weathered Bedrock	Yes		629786	6230207.2	25-Jul-21	27-Aug-21	Axel Chore	5.54	PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
Left Bank Excavation	LBEX-2021-Oct-13-01	Exposed Surface	Weathered Bedrock	No		629825.5	6230264.6	13-Oct-21	6-Nov-21	Axel Chore	8.27	Exposed PAG rock face. Black coloured PAG. Contents contain a mixture of PAG rock and overburden.
Left Bank Excavation	LBEX-2021-Oct-13-02	Exposed Surface	Weathered Bedrock	No		629798.5	6230204.2	13-Oct-21	6-Nov-21	Axel Chore	3.03	Exposed PAG rock face. Black coloured PAG. Contents contain a mixture of PAG rock and overburden.
Left Bank Excavation	LBEX-2021-Oct-13-03	Exposed Surface	Weathered Bedrock	No		629544.4	6230513.5	13-Oct-21	6-Nov-21	Axel Chore	6.77	Exposed PAG rock face. Black coloured PAG. Contents contain a mixture of PAG rock and overburden.
Left Bank Excavation	LBEX-2021-Oct-13-04	Exposed Surface	Weathered Bedrock	No		629540.9	6230634.2	13-Oct-21	6-Nov-21	Axel Chore	2.67	Exposed PAG rock face. Black coloured PAG. Contents contain a mixture of PAG rock and overburden.
Left Bank Excavation	LBEX-2021-Oct-13-05	Exposed Surface	Weathered Bedrock	No		629443.8	6230788.1	13-Oct-21	6-Nov-21	Axel Chore	3.25	Sample Duplicate: 3.27 <NL>Exposed PAG rock face. Black coloured PAG. Contents contain a mixture of PAG rock and overburden.
Left Bank Excavation	LBEX-2021-Oct-13-06	Exposed Surface	Weathered Bedrock	No		629432	6230621.1	13-Oct-21	8-Nov-21	Axel Chore	2.67	Exposed PAG rock face. Black coloured PAG. Contents contain a mixture of PAG rock and overburden.
Left Bank Excavation	LBEX-2021-Oct-13-07	Exposed Surface	Weathered Bedrock	No		629469	6230552.7	13-Oct-21	6-Nov-21	Axel Chore	3.25	Exposed PAG rock face. Black coloured PAG. Contents contain a mixture of PAG rock and overburden.
Earthfill Dam												
Central Cofferdam/Left Bank Dam Core(LBDC)	LBDC-2021-Apr-09-71	Active excavation area	Weathered Bedrock	No		629609.6	6230143.3	9-Apr-21	3-May-21	Axel Chore	8.04	
Central Cofferdam/Left Bank Dam Core(LBDC)	LBDC-2021-Apr-09-72	Active excavation area	Weathered Bedrock	No		629581.2	6230115.9	9-Apr-21	3-May-21	Axel Chore	9.23	
Central Cofferdam/Left Bank Dam Core(LBDC)	LBDC-2021-Apr-09-73	Active excavation area	Weathered Bedrock	No		629668.4	6230048.7	9-Apr-21	3-May-21	Axel Chore	9.27	
Central Cofferdam/Left Bank Dam Core(LBDC)	LBDC-2021-Apr-09-74	Active excavation area	Fresh Bedrock	No		629477.7	6229825.2	9-Apr-21	7-May-21	Axel Chore	9.29	
Central Cofferdam/Left Bank Dam Core(LBDC)	LBDC-2021-Apr-09-75	Active excavation area	Fresh Bedrock	No		629489.1	6229887.9	9-Apr-21	3-May-21	Axel Chore	10.07	Sample Duplicate: 10.07
Central Cofferdam/Left Bank Dam Core(LBDC)	LBDC-2021-Apr-09-76	Active excavation area	Fresh Bedrock	No		629553.5	6229879.8	9-Apr-21	3-May-21	Axel Chore	10.31	
Core Trench Excavation	LBCTE-2021-Apr-09-59	Active excavation area	Fresh Bedrock	No		629421.5	6229637.2	9-Apr-21	7-May-21	Axel Chore	6.31	
Core Trench Excavation	LBCTE-2021-Apr-09-60	Active excavation area	Fresh Bedrock	No		629409.8	6229632.5	9-Apr-21	7-May-21	Axel Chore	8.39	Sample Duplicate: 8.39
Core Trench Excavation	LBCTE-2021-Apr-09-61	Active excavation area	Fresh Bedrock	No		629379.4	6229651.6	9-Apr-21	3-May-21	Axel Chore	9.94	
Core Trench Excavation	LBCTE-2021-Apr-09-62	Active excavation area	Fresh Bedrock	No		629367.3	6229673.6	9-Apr-21	7-May-21	Axel Chore	8.11	
Core Trench Excavation	LBCTE-2021-Apr-09-63	Active excavation area	Fresh Bedrock	No		629368.6	6229696.2	9-Apr-21	3-May-21	Axel Chore	8.43	
Core Trench Excavation	LBCTE-2021-Apr-09-64	Active excavation area	Fresh Bedrock	No		629381.6	6229718.7	9-Apr-21	7-May-21	Axel Chore	8.16	
Core Trench Excavation	LBCTE-2021-Apr-09-65	Active excavation area	Fresh Bedrock	No		629406.2	6229762.1	9-Apr-21	3-May-21	Axel Chore	9.91	Sample Duplicate: 9.90
Core Trench Excavation	LBCTE-2021-Apr-09-66	Active excavation area	Fresh Bedrock	No		629425.5	6229805.6	9-Apr-21	7-May-21	Axel Chore	8.77	

Table 1: 2021 Rinse pH Results

Sample Location	Sample ID	Sample Type	Material Type	Sulphides Visible	Overburden Type	Easting_m	Northing_m	Date Sampled	Date Analyzed	Operator	Rinse_pH	Notes
Core Trench Excavation	LBCTE-2021-Apr-09-67	Active excavation area	Fresh Bedrock	No		629430.4	6229734.9	9-Apr-21	3-May-21	Axel Chore	9.58	
Core Trench Excavation	LBCTE-2021-Apr-09-68	Active excavation area	Fresh Bedrock	No		629429	6229701.9	9-Apr-21	7-May-21	Axel Chore	8.75	
Core Trench Excavation	LBCTE-2021-Apr-09-69	Active excavation area	Fresh Bedrock	No		629467.9	6229709.9	9-Apr-21	3-May-21	Axel Chore	8.59	
Core Trench Excavation	LBCTE-2021-Apr-09-70	Active excavation area	Fresh Bedrock	No		629488.1	6229745	9-Apr-21	7-May-21	Axel Chore	7.81	Sample Duplicate: 7.82
Core Trench Excavation	CT-2021-Jul-25-60	Active excavation area	Fresh Bedrock	No		629215	6229469.2	25-Jul-21	27-Aug-21	Axel Chore	8.98	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG <NL>Sample Duplicate: 8.96
Core Trench Excavation	CT-2021-Jul-25-61	Active excavation area	Fresh Bedrock	Yes		629284	6229458.8	25-Jul-21	27-Aug-21	Axel Chore	7.14	PAG pile. Black coloured PAG. Contents contain sulphides.
Core Trench Excavation	CT-2021-Jul-25-62	Active excavation area	Weathered Bedrock	No		629314	6229567.5	25-Jul-21	27-Aug-21	Axel Chore	9.89	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG. From floor.
Core Trench Excavation	CT-2021-Jul-25-63	Active excavation area	Weathered Bedrock	No		629562	6229865.5	25-Jul-21	27-Aug-21	Axel Chore	7.94	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Core Trench Excavation	CT-2021-Jul-25-64	Active excavation area	Weathered Bedrock	No		629502	6229746.8	25-Jul-21	27-Aug-21	Axel Chore	7.25	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG. Near water.
Core Trench Excavation	CT-2021-Jul-25-65	Active excavation area	Weathered Bedrock	No		629449	6229691.9	25-Jul-21	27-Aug-21	Axel Chore	8.31	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG. Near sump.<NL>Sample Duplicate: 8.30
Core Trench Excavation	CT-2021-Jul-25-66	Active excavation area	Weathered Bedrock	Yes		629402	6229620.3	25-Jul-21	27-Aug-21	Axel Chore	8.25	PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
Core Trench Excavation	CT-2021-Jul-25-67	Active excavation area	Fresh Bedrock	No		629330	6229649.9	25-Jul-21	27-Aug-21	Axel Chore	8.84	Exposed PAG rock face. Shaved from rock face. PAG samples were collected when rocks contain high moisture.
Core Trench Excavation	CT-2021-Jul-25-68	Active excavation area	Weathered Bedrock	No		629381	6229692.1	25-Jul-21	27-Aug-21	Axel Chore	7.82	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG. From floor.
Core Trench Excavation	CT-2021-Jul-25-69	Active excavation area	Fresh Bedrock	No		629430	6229791	25-Jul-21	27-Aug-21	Axel Chore	8.08	Exposed PAG rock face. Shaved from rock face. PAG samples were collected when rocks contain high moisture.
Core Trench Excavation	CT-2021-Nov-03-75	Exposed Surface	Fresh Bedrock	No		629199.4	6229423	3-Nov-21	4-Nov-21	Axel Chore	8.45	Sample Duplicate: 8.48<NL>PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-76	Exposed Surface	Fresh Bedrock	No		629241.5	6229440.8	3-Nov-21	4-Nov-21	Axel Chore	8.64	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-77	Active excavation area	Fresh Bedrock	No		629258.6	6229488.2	3-Nov-21	4-Nov-21	Axel Chore	9.13	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-78	Exposed Surface	Fresh Bedrock	No		629331.5	6229535.8	3-Nov-21	4-Nov-21	Axel Chore	8.03	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-79	Exposed Surface	Fresh Bedrock	No		629348.8	6229650.7	3-Nov-21	4-Nov-21	Axel Chore	8.27	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-80	Exposed Surface	Fresh Bedrock	No		629430.6	6229675.6	3-Nov-21	4-Nov-21	Axel Chore	8.45	Sample Duplicate: 8.43<NL> PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-81	Exposed Surface	Fresh Bedrock	No		629399.9	6229741.3	3-Nov-21	4-Nov-21	Axel Chore	8.77	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-82	Exposed Surface	Fresh Bedrock	No		629362.2	6229682	3-Nov-21	4-Nov-21	Axel Chore	8.19	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-83	Exposed Surface	Fresh Bedrock	No		629426.5	6229717.6	3-Nov-21	8-Nov-21	Axel Chore	7.26	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-84	Exposed Surface	Fresh Bedrock	No		629469.1	6229742.4	3-Nov-21	4-Nov-21	Axel Chore	8.85	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-85	Exposed Surface	Fresh Bedrock	No		629452.3	6229767.5	3-Nov-21	4-Nov-21	Axel Chore	8.83	Sample Duplicate:<NL> PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-86	Exposed Surface	Fresh Bedrock	No		629443	6229808	3-Nov-21	4-Nov-21	Axel Chore	10.05	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-87	Exposed Surface	Fresh Bedrock	No		629492.7	6229811.2	3-Nov-21	4-Nov-21	Axel Chore	8.43	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-88	Exposed Surface	Fresh Bedrock	No		629524.5	6229832.9	3-Nov-21	4-Nov-21	Axel Chore	7.71	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-89	Exposed Surface	Fresh Bedrock	No		629511.8	6229857.5	3-Nov-21	4-Nov-21	Axel Chore	8.48	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-90	Exposed Surface	Fresh Bedrock	No		629506	6229904	3-Nov-21	4-Nov-21	Axel Chore	8.27	Sample Duplicate: 8.28<NL> PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-91	Exposed Surface	Fresh Bedrock	No		629558.9	6229943.7	3-Nov-21	4-Nov-21	Axel Chore	8.61	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-92	Blast Holes	Fresh Bedrock	No		629560.6	6229982.4	3-Nov-21	4-Nov-21	Axel Chore	9.48	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-93	Exposed Surface	Fresh Bedrock	No		629607.1	6230002.9	3-Nov-21	4-Nov-21	Axel Chore	9.03	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-94	Exposed Surface	Fresh Bedrock	No		629646.7	6230009.5	3-Nov-21	4-Nov-21	Axel Chore	8.64	PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Core Trench Excavation	CT-2021-Nov-03-95	Exposed Surface	Fresh Bedrock	No		629645.1	6230089.7	3-Nov-21	4-Nov-21	Axel Chore	9.02	Sample Duplicate: 9.02<NL> PAG thermal layer pile. Recently excavated black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Jul-25-54	RSEM Pile	Fresh Bedrock	No		629285	6229877.6	25-Jul-21	27-Aug-21	Axel Chore	6.08	PAG pile. Black coloured PAG. Contains aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Jul-25-55	RSEM Pile	Fresh Bedrock	No		629246	6229814	25-Jul-21	27-Aug-21	Axel Chore	7	PAG pile. Black coloured PAG. Contents contains aggregate. <NL>Sample Duplicate: 7.02
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Jul-25-56	Exposed Surface	Fresh Bedrock	No		629209	6229736.5	25-Jul-21	27-Aug-21	Axel Chore	6.89	
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Jul-25-57	RSEM Pile	Fresh Bedrock	Yes		629216	6229697.8	25-Jul-21	27-Aug-21	Axel Chore	7.59	
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Jul-25-58	RSEM Pile	Fresh Bedrock	Yes		629273	6229773	25-Jul-21	27-Aug-21	Axel Chore	7.31	PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Jul-25-59	RSEM Pile	Fresh Bedrock	Yes		629324	6229867	25-Jul-21	27-Aug-21	Axel Chore	8.17	PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-45	Active excavation area	Fresh Bedrock	No		629286.9	6229926.3	15-Oct-21	4-Nov-21	Axel Chore	8.56	Sample Duplicate: 8.54 <NL>Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-46	Active excavation area	Fresh Bedrock	No		629273.8	6229875.1	15-Oct-21	4-Nov-21	Axel Chore	8.68	Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-47	Active excavation area	Fresh Bedrock	No		629227.2	6229846	15-Oct-21	4-Nov-21	Axel Chore	8.89	Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-48	Active excavation area	Fresh Bedrock	No		629191.6	6229773.8	15-Oct-21	4-Nov-21	Axel Chore	7.88	Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-49	Active excavation area	Fresh Bedrock	No		629192.1	6229712.4	15-Oct-21	4-Nov-21	Axel Chore	9.27	Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-50	Active excavation area	Fresh Bedrock	No		629238.5	6229749.8	15-Oct-21	4-Nov-21	Axel Chore	8.37	Sample Duplicate: 8.35<NL>Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-51	Active excavation area	Fresh Bedrock	No		629290.2	6229832.6	15-Oct-21	4-Nov-21	Axel Chore	8.23	Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Earthfill Dam - Zone 8 Wedge	Zone_8-2021-Oct-15-52	Active excavation area	Fresh Bedrock	No		629321.7	6229926.9	15-Oct-21	4-Nov-21	Axel Chore	8.8	Recently tracked packed PAG pile. Black coloured PAG. Contents contain aggregate.
Rgiht Bank												
777 Haul Road	777-2021-Apr-07-28	Active excavation area	Weathered Bedrock	Yes		628920.1	6229484.1	7-Apr-21	1-May-21	Axel Chore	5.93	
777 Haul Road	777-2021-Apr-07-30	Active excavation area	Weathered Bedrock	Yes		628875.9	6229429	7-Apr-21	1-May-21	Axel Chore	4.57	Duplicate pH 4.57
777 Haul Road	777-2021-Apr-07-31	Active excavation area	Weathered Bedrock	Yes		628885.9	6229502.5	7-Apr-21	1-May-21	Axel Chore	6.66	
777 Haul Road	777-2021-Apr-07-29	Active excavation area	Weathered Bedrock	Yes		628919.5	6229428	29-Apr-21	7-May-21	Axel Chore	3.44	
777 Haul Road	777-2021-Jul-24-29	Exposed Surface	Weathered Bedrock	No		628936	6229370.7	24-Jul-21	26-Aug-21	Axel Chore	5.1	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG.
777 Haul Road	777-2021-Jul-24-30	Exposed Surface	Weathered Bedrock	No		628915	6229448.5	24-Jul-21	26-Aug-21	Axel Chore	2.37	Sample Duplicate: 2.36<NL> Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
777 Haul Road	777-2021-Jul-24-31	Exposed Surface	Weathered Bedrock	Yes		628883	6229511	24-Jul-21	26-Aug-21	Axel Chore	4.74	PAG pile. Black coloured PAG. Contents contain sulphides.
777 Haul Road	777-2021-Jul-24-32	Exposed Surface	Weathered Bedrock	Yes		628874	6229455.4	24-Jul-21	26-Aug-21	Axel Chore	3.7	PAG pile. Black coloured PAG. Contents contain sulphides.
777 Haul Road	777-2021-Jul-24-33	Exposed Surface	Weathered Bedrock	No		628879	6229394.4	24-Jul-21	26-Aug-21	Axel Chore	4.49	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
777 Haul Road	777-2021-Oct-15-53	Exposed Surface	Weathered Bedrock	Yes		628916	6229395.4	15-Oct-21	4-Nov-21	Axel Chore	2.49	Exposed PAG rock face. Black coloured PAG.
777 Haul Road	777-2021-Oct-15-54	Exposed Surface	Weathered Bedrock	No		628919	6229478.6	15-Oct-21	4-Nov-21	Axel Chore	2.47	Exposed PAG rock face. Black coloured PAG.
777 Haul Road	777-2021-Oct-15-55	Exposed Surface	Weathered Bedrock	Yes		628867.9	6229508.1	15-Oct-21	4-Nov-21	Axel Chore	2.29	Sample Duplicate: 2.27<NL> Exposed PAG rock face. Black coloured PAG.

Table 1: 2021 Rinse pH Results

Sample Location	Sample ID	Sample Type	Material Type	Sulphides Visible	Overburden Type	Easting_m	Northing_m	Date Sampled	Date Analyzed	Operator	Rinse_pH	Notes
777 Haul Road	777-2021-Oct-15-56	Exposed Surface	Weathered Bedrock	Yes		628869.6	6229449.5	15-Oct-21	4-Nov-21	Axel Chore	2.28	Exposed PAG rock face. Black coloured PAG.
Approach Channel Drainage Channel	ACDC-2021-Apr-08-47	Exposed Surface	Weathered Bedrock	No		629009.8	6229487.3	8-Apr-21	7-May-21	Axel Chore	2.63	
Approach Channel Drainage Channel	ACDC-2021-Apr-08-48	Exposed Surface	Weathered Bedrock	No		629070	6229397	8-Apr-21	1-May-21	Axel Chore	2.96	
Approach Channel Drainage Channel	ACDC-2021-Apr-08-49	Exposed Surface	Fresh Bedrock	No		629172.3	6229282.3	8-Apr-21	1-May-21	Axel Chore	2.48	
Approach Channel Drainage Channel	ACDC-2021-Jul-24-34	Exposed Surface	Weathered Bedrock	No		629025	6229381	24-Jul-21	26-Aug-21	Axel Chore	5.44	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG.
Approach Channel Drainage Channel	ACDC-2021-Jul-24-35	Exposed Surface	Weathered Bedrock	No		629038	6229404.6	24-Jul-21	26-Aug-21	Axel Chore	2.84	Sample Duplicate: 2.83<NL> Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG.
Approach Channel Drainage Channel	ACDC-2021-Jul-24-36	Exposed Surface	Weathered Bedrock	No		628982	6229484.6	24-Jul-21	26-Aug-21	Axel Chore	3.75	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel Drainage Channel	ACDC-2021-Oct-15-57	Exposed Surface	Weathered Bedrock	No		628988	6229494	15-Oct-21	4-Nov-21	Axel Chore	2.39	Exposed PAG rock face. Black coloured PAG.
Approach Channel Drainage Channel	ACDC-2021-Oct-15-58	Exposed Surface	Weathered Bedrock	No		629023.2	6229463	15-Oct-21	4-Nov-21	Axel Chore	3.19	Exposed PAG rock face. Black coloured PAG.
Approach Channel Drainage Channel	ACDC-2021-Oct-15-59	Exposed Surface	Weathered Bedrock	No		629024.8	6229436.9	15-Oct-21	4-Nov-21	Axel Chore	2.89	Exposed PAG rock face. Black coloured PAG.
Approach Channel Drainage Channel	ACDC-2021-Oct-15-60	Exposed Surface	Weathered Bedrock	No		629050.8	6229400.2	15-Oct-21	6-Nov-21	Axel Chore	2.74	Sample Duplicate: 2.75 <NL>Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Apr-08-35	Exposed Surface	Weathered Bedrock	No		629527.7	6228993.8	8-Apr-21	1-May-21	Axel Chore	7.02	Duplicate pH 7.00
Approach Channel	AC-2021-Apr-08-36	Exposed Surface	Weathered Bedrock	Yes		629496.8	6229001.7	8-Apr-21	1-May-21	Axel Chore	2.63	
Approach Channel	AC-2021-Apr-08-37	Exposed Surface	Weathered Bedrock	No		629452.8	6229019.3	8-Apr-21	1-May-21	Axel Chore	2.61	
Approach Channel	AC-2021-Apr-08-38	Exposed Surface	Weathered Bedrock	No		629434.1	6229034.3	8-Apr-21	1-May-21	Axel Chore	2.49	
Approach Channel	AC-2021-Apr-08-39	Exposed Surface	Weathered Bedrock	No		629405.9	6229052.9	8-Apr-21	1-May-21	Axel Chore	2.51	
Approach Channel	AC-2021-Apr-08-40	Exposed Surface	Weathered Bedrock	No		629370	6229067	8-Apr-21	1-May-21	Axel Chore	2.49	Sample Duplicate: 2.48
Approach Channel	AC-2021-Apr-08-41	Exposed Surface	Weathered Bedrock	Yes		629322.2	6229097.5	8-Apr-21	1-May-21	Axel Chore	3.01	
Approach Channel	AC-2021-Apr-08-42	Exposed Surface	Weathered Bedrock	No		629377.2	6229044.2	8-Apr-21	1-May-21	Axel Chore	2.52	
Approach Channel	AC-2021-Apr-08-43	Exposed Surface	Weathered Bedrock	No		629247.4	6229139.2	8-Apr-21	1-May-21	Axel Chore	2.62	
Approach Channel	AC-2021-Apr-08-44	Exposed Surface	Weathered Bedrock	Yes		629217.1	6229171.5	8-Apr-21	1-May-21	Axel Chore	2.37	
Approach Channel	AC-2021-Apr-08-45	Exposed Surface	Weathered Bedrock	No		629168.9	6229209.8	8-Apr-21	1-May-21	Axel Chore	2.5	Sample Duplicate: 2.48
Approach Channel	AC-2021-Apr-08-46	Exposed Surface	Weathered Bedrock	No		629116.8	6229259.5	8-Apr-21	1-May-21	Axel Chore	4.73	
Approach Channel	AC-2021-Apr-08-50	Exposed Surface	Weathered Bedrock	Yes		629243.6	6229193.6	8-Apr-21	1-May-21	Axel Chore	2.71	Sample Duplicate: 2.72
Approach Channel	AC-2021-Apr-08-51	Exposed Surface	Weathered Bedrock	No		629162.9	6229231.4	8-Apr-21	1-May-21	Axel Chore	3.07	
Approach Channel	AC-2021-Jul-24-37	Exposed Surface	Weathered Bedrock	No		629599	6228847.1	24-Jul-21	26-Aug-21	Axel Chore	2.25	Exposed PAG rock face. Shaved from rock face. PAG samples were collected when rocks contain high moisture.
Approach Channel	AC-2021-Jul-24-38	Exposed Surface	Weathered Bedrock	No		629542	6228892.4	24-Jul-21	26-Aug-21	Axel Chore	3.13	Weathered PAG. The sample contains low moisture.
Approach Channel	AC-2021-Jul-24-39	Exposed Surface	Weathered Bedrock	No		629523	6228989	24-Jul-21	26-Aug-21	Axel Chore	2.93	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-40	Exposed Surface	Weathered Bedrock	No		629509	6228989.2	24-Jul-21	26-Aug-21	Axel Chore	2.67	Sample Duplicate: 2.69<NL> Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-41	Exposed Surface	Weathered Bedrock	No		629482	6229001.2	24-Jul-21	26-Aug-21	Axel Chore	2.61	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-42	Exposed Surface	Weathered Bedrock	No		629452	6229010.3	24-Jul-21	26-Aug-21	Axel Chore	2.52	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-43	Exposed Surface	Weathered Bedrock	No		629434	6229028.8	24-Jul-21	26-Aug-21	Axel Chore	2.6	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-44	Exposed Surface	Weathered Bedrock	No		629414	6229041	24-Jul-21	26-Aug-21	Axel Chore	2.54	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-45	Exposed Surface	Weathered Bedrock	No		629395	6229041.1	24-Jul-21	26-Aug-21	Axel Chore	2.68	Sample Duplicate: 2.68<NL> Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-46	Exposed Surface	Weathered Bedrock	No		629367	6229056.1	24-Jul-21	27-Aug-21	Axel Chore	2.37	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-47	Exposed Surface	Weathered Bedrock	No		629334	6229073.7	24-Jul-21	27-Aug-21	Axel Chore	2.27	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-48	Exposed Surface	Weathered Bedrock	No		629218	6229167.5	24-Jul-21	27-Aug-21	Axel Chore	2.42	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG.
Approach Channel	AC-2021-Jul-24-49	Exposed Surface	Weathered Bedrock	No		629195	6229198.3	24-Jul-21	27-Aug-21	Axel Chore	5.61	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG.
Approach Channel	AC-2021-Jul-24-50	Exposed Surface	Weathered Bedrock	No		629145	6229233.3	24-Jul-21	27-Aug-21	Axel Chore	2.44	Sample Duplicate: 2.45 <NL>Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
Approach Channel	AC-2021-Jul-24-51	Exposed Surface	Weathered Bedrock	No		629124	6229253.8	24-Jul-21	27-Aug-21	Axel Chore	2.54	Exposed PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
Approach Channel	AC-2021-Oct-15-61	Exposed Surface	Weathered Bedrock	No		629573.5	6228936.7	15-Oct-21	6-Nov-21	Axel Chore	2.41	Exposed PAG rock face. Black coloured PAG. Contents contain aggregate.
Approach Channel	AC-2021-Oct-15-62	Exposed Surface	Weathered Bedrock	Yes		629483.6	6228985.7	15-Oct-21	6-Nov-21	Axel Chore	2.45	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-63	Exposed Surface	Weathered Bedrock	No		629470.7	6229014	15-Oct-21	6-Nov-21	Axel Chore	2.42	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-64	Exposed Surface	Weathered Bedrock	No		629442.9	6229011.4	15-Oct-21	6-Nov-21	Axel Chore	2.57	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-65	Exposed Surface	Weathered Bedrock	Yes		629426.8	6229037.6	15-Oct-21	6-Nov-21	Axel Chore	2.85	Exposed PAG rock face. Black coloured PAG.<NL>Sample Duplicate 2.85
Approach Channel	AC-2021-Oct-15-66	Exposed Surface	Fresh Bedrock	No		629399	6229037	15-Oct-21	6-Nov-21	Axel Chore	2.43	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-67	Exposed Surface	Weathered Bedrock	No		629383.4	6229056.1	15-Oct-21	6-Nov-21	Axel Chore	2.39	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-68	Blast Holes	Weathered Bedrock	No		629358.2	6229055.6	15-Oct-21	6-Nov-21	Axel Chore	2.45	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-69	Exposed Surface	Weathered Bedrock	No		629315.7	6229085.9	15-Oct-21	6-Nov-21	Axel Chore	2.47	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-70	Exposed Surface	Weathered Bedrock	No		629225.5	6229182	15-Oct-21	6-Nov-21	Axel Chore	2.46	Sample Duplicate: 2.47<NL> Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-71	Exposed Surface	Weathered Bedrock	Yes		629276.1	6229135.8	15-Oct-21	6-Nov-21	Axel Chore	2.41	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-72	Exposed Surface	Weathered Bedrock	No		629180.9	6229181.4	15-Oct-21	8-Nov-21	Axel Chore	2.24	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-73	Exposed Surface	Weathered Bedrock	No		629147.5	6229222	15-Oct-21	6-Nov-21	Axel Chore	2.25	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Oct-15-74	Exposed Surface	Weathered Bedrock	No		629117.2	6229250.3	15-Oct-21	6-Nov-21	Axel Chore	2.23	Exposed PAG rock face. Black coloured PAG.
Approach Channel	AC-2021-Nov-03-96	Active excavation area	Fresh Bedrock	No		629301.3	6229003.4	3-Nov-21	4-Nov-21	Axel Chore	9.43	Recent excavated PAG. The sample contains low moisture.
Approach Channel	AC-2021-Nov-03-97	Active excavation area	Fresh Bedrock	No		629323.7	6228967.5	3-Nov-21	4-Nov-21	Axel Chore	8.87	Recent excavated PAG. The sample contains low moisture.
Approach Channel	AC-2021-Nov-03-98	Active excavation area	Fresh Bedrock	No		629364.5	6228928.2	3-Nov-21	4-Nov-21	Axel Chore	8.34	Recent excavated PAG. The sample contains low moisture.
Approach Channel	AC-2021-Nov-03-99	Active excavation area	Fresh Bedrock	No		629465.6	6228857.3	3-Nov-21	8-Nov-21	Axel Chore	8.18	Recent excavated PAG. The sample contains low moisture.
Approach Channel	AC-2021-Nov-03-100	Active excavation area	Fresh Bedrock	No		629407	6228939.3	3-Nov-21	4-Nov-21	Axel Chore	8.33	Sample Duplicate: 8.33<NL>Recent excavated PAG. The sample contains low moisture.
Approach Channel	AC-2021-Nov-03-101	Active excavation area	Fresh Bedrock	No		629331.4	6229054.7	3-Nov-21	4-Nov-21	Axel Chore	7.11	
Approach Channel	AC-2021-Nov-03-102	Active excavation area	Fresh Bedrock	No		629399.3	6229007.6	3-Nov-21	4-Nov-21	Axel Chore	7.03	Recent excavated PAG. The sample contains low moisture.
Approach Channel	AC-2021-Nov-03-103	Active excavation area	Fresh Bedrock	No		629428.2	6228972.6	3-Nov-21	4-Nov-21	Axel Chore	7.66	

Table 1: 2021 Rinse pH Results

Sample Location	Sample ID	Sample Type	Material Type	Sulphides Visible	Overburden Type	Easting_m	Northing_m	Date Sampled	Date Analyzed	Operator	Rinse_pH	Notes
Auxiliary Spillway	Aux_Spill-2021-Apr-08-32	Exposed Surface	Weathered Bedrock	No		629594.2	6228851.5	8-Apr-21	1-May-21	Axel Chore	2.68	
Auxiliary Spillway	Aux_Spill-2021-Apr-08-33	Exposed Surface	Weathered Bedrock	Yes		629533.8	6228866.6	8-Apr-21	1-May-21	Axel Chore	2.54	
Auxiliary Spillway	Aux_Spill-2021-Apr-08-34	Exposed Surface	Weathered Bedrock	Yes		629582.6	6228943.1	8-Apr-21	7-May-21	Axel Chore	2.88	
Right Bank Dam Core(RBDC)	RBDC-2021-Apr-09-54	Active excavation area	Fresh Bedrock	No		629210	6229467.6	9-Apr-21	3-May-21	Axel Chore	10.03	
Right Bank Dam Core(RBDC)	RBDC-2021-Apr-09-55	Active excavation area	Fresh Bedrock	No		629259.6	6229533.3	9-Apr-21	3-May-21	Axel Chore	10.34	Sample Dulpicate: 10.33
Right Bank Dam Core(RBDC)	RBDC-2021-Apr-09-56	Active excavation area	Fresh Bedrock	No		629327.2	6229459.2	9-Apr-21	3-May-21	Axel Chore	9.96	
Right Bank Dam Core(RBDC)	RBDC-2021-Apr-09-57	Active excavation area	Fresh Bedrock	No		629271.7	6229568.5	9-Apr-21	3-May-21	Axel Chore	8.97	
Right Bank Dam Core(RBDC)	RBDC-2021-Apr-09-58	Active excavation area	Fresh Bedrock	No		629291.9	6229394.9	9-Apr-21	3-May-21	Axel Chore	9.69	
RSEM R5a	R5a-2021-Apr-07-01	RSEM Pile	Fresh Bedrock	No		628197.4	6230519.7	7-Apr-21	28-Apr-21	Axel Chore	7.86	
RSEM R5a	R5A-2021-Apr-07-02	RSEM Pile	Fresh Bedrock	No		628143.7	6230597.9	7-Apr-21	28-Apr-21	Tinka Adeoye	8.53	
RSEM R5a	R5a-2021-Apr-07-03	RSEM Pile	Overburden		Sand/Gravel	627944.4	6230820.4	7-Apr-21	28-Apr-21	Tinka Adeoye	8.62	
RSEM R5a	R5a-2021-Apr-07-04	RSEM Pile	Weathered Bedrock	No		627784.4	6231049.2	7-Apr-21	28-Apr-21	Tinka Adeoye	10	
RSEM R5a	R5a-2021-Apr-07-05	RSEM Pile	Fresh Bedrock	No		627609.5	6231273.7	7-Apr-21	28-Apr-21	Tinka Adeoye	7.79	Sample Duplicate: 7.79
RSEM R5a	R5a-2021-Apr-07-06	RSEM Pile	Fresh Bedrock	No		627580.7	6231394.5	7-Apr-21	28-Apr-21	Tinka Adeoye	9.38	
RSEM R5a	R5a-2021-Apr-07-07	Exposed Surface	Fresh Bedrock	Yes		627347.3	6231685.3	7-Apr-21	28-Apr-21	Tinka Adeoye	7.51	
RSEM R5a	R5a-2021-Apr-07-08	RSEM Pile	Weathered Bedrock	Yes		627275	6231776.5	7-Apr-21	28-Apr-21	Tinka Adeoye	2.51	
RSEM R5a	R5a-2021-Apr-07-09	RSEM Pile	Weathered Bedrock	Yes		627249.5	6231798.4	7-Apr-21	7-May-21	Tinka Adeoye	4.3	
RSEM R5a	R5a-2021-Apr-07-10	RSEM Pile	Weathered Bedrock	Yes		627064.5	6231833.5	7-Apr-21	28-Apr-21	Tinka Adeoye	8.21	Sample Duplicate: 8.22
RSEM R5a	R5a-2021-Apr-07-11	RSEM Pile	Overburden		Sand/Gravel	627484.7	6231273.7	7-Apr-21	28-Apr-21	Tinka Adeoye	7.14	
RSEM R5a	R5a-2021-Apr-07-12	RSEM Pile	Fresh Bedrock	No		627755.7	6230996.5	7-Apr-21	28-Apr-21	Tinka Adeoye	9.64	
RSEM R5a	R5a-2021-Apr-07-13	RSEM Pile	Fresh Bedrock	No		627761.1	6230869.2	7-Apr-21	28-Apr-21	Tinka Adeoye	9.17	
RSEM R5a	R5a-2021-Apr-07-14	RSEM Pile	Weathered Bedrock	Yes		627906.1	6230784.8	7-Apr-21	28-Apr-21	Tinka Adeoye	6.9	
RSEM R5a	R5a-2021-Apr-07-15	RSEM Pile	Weathered Bedrock	Yes		628057.7	6230597.7	7-Apr-21	28-Apr-21	Tinka Adeoye	4.55	Sample Duplicate: 4.57
RSEM R5a	R5a-2021-Apr-07-16	RSEM Pile	Fresh Bedrock	No		627495.9	6231333.6	7-Apr-21	28-Apr-21	Tinka Adeoye	8.29	
RSEM R5a	R5a-2021-Apr-07-17	RSEM Pile	Fresh Bedrock	No		627337.1	6231392.6	7-Apr-21	28-Apr-21	Tinka Adeoye	8.57	
RSEM R5a	R5a-2021-Apr-07-18	RSEM Pile	Fresh Bedrock	No		627408.6	6231409.3	7-Apr-21	28-Apr-21	Tinka Adeoye	9.27	
RSEM R5a	R5a-2021-Apr-07-19	RSEM Pile	Overburden		Sand/Gravel	627368.4	6231545.1	7-Apr-21	7-May-21	Tinka Adeoye	8.38	
RSEM R5a	R5a-2021-Apr-07-20	RSEM Pile	Overburden		Sand/Gravel	627245.5	6231659.6	7-Apr-21	1-May-21	Tinka Adeoye	8.71	Sample Duplicate: 8.74
RSEM R5a	R5a-2021-Apr-07-21	RSEM Pile	Weathered Bedrock	Yes		627241	6231593.3	7-Apr-21	1-May-21	Tinka Adeoye	8.3	
RSEM R5a	R5a-2021-Apr-07-22	RSEM Pile	Overburden		Sand/Gravel	628115.7	6230275.7	28-Apr-21	1-May-21	Tinka Adeoye	8.52	
RSEM R5a	R5a-2021-Jul-24-01	RSEM Pile	Fresh Bedrock	No		628209	6230493	17-Jul-21	26-Aug-21	Axel Chore	7.91	RSEM PAG pile. Black coloured PAG.
RSEM R5a	R5a-2021-Jul-24-02	RSEM Pile	Fresh Bedrock	No		628183	6230531.9	24-Jul-21	26-Aug-21	Axel Chore	8.16	RSEM PAG pile. Black coloured PAG. Contents contain aggregate.
RSEM R5a	R5a-2021-Jul-24-03	RSEM Pile	Fresh Bedrock	Yes		628140	6230607.5	24-Jul-21	26-Aug-21	Axel Chore	8.17	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-04	RSEM Pile	Fresh Bedrock	Yes		627937	6230796	24-Jul-21	26-Aug-21	Axel Chore	8.31	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-05	RSEM Pile	Fresh Bedrock	Yes		627928	6230852	24-Jul-21	26-Aug-21	Axel Chore	7	Sample Duplicate: 7.01<NL>RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-06	Active excavation area	Fresh Bedrock	Yes		627884	6230934.3	24-Jul-21	26-Aug-21	Axel Chore	6.87	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-07	RSEM Pile	Fresh Bedrock	Yes		627718	6231093.1	24-Jul-21	26-Aug-21	Axel Chore	6.31	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-08	RSEM Pile	Weathered Bedrock	Yes		627669	6231144.1	24-Jul-21	26-Aug-21	Axel Chore	4.45	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-09	RSEM Pile	Weathered Bedrock	No		627617	6231303.6	24-Jul-21	26-Aug-21	Axel Chore	5.51	RSEM PAG pile. Black coloured PAG. Contents contain aggregate.
RSEM R5a	R5a-2021-Jul-24-10	RSEM Pile	Fresh Bedrock	Yes		627600	6231352.3	24-Jul-21	26-Aug-21	Axel Chore	6.28	Sample Duplicate: 6.29<NL> RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-11	RSEM Pile	Weathered Bedrock	Yes		627546	6231412.8	24-Jul-21	26-Aug-21	Axel Chore	7.74	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-12	RSEM Pile	Fresh Bedrock	Yes		627426	6231535.5	24-Jul-21	26-Aug-21	Axel Chore	7.54	
RSEM R5a	R5a-2021-Jul-24-13	RSEM Pile	Weathered Bedrock	Yes		627398	6231578.1	24-Jul-21	26-Aug-21	Axel Chore	3.97	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-14	RSEM Pile	Weathered Bedrock	No		627348	6231654	24-Jul-21	26-Aug-21	Axel Chore	4.39	RSEM PAG pile. Black coloured.
RSEM R5a	R5a-2021-Jul-24-15	RSEM Pile	Weathered Bedrock	Yes		627337	6231699.9	24-Jul-21	26-Aug-21	Axel Chore	3.03	Sample Duplicate: 3.04<NL> RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-16	RSEM Pile	Weathered Bedrock	No		627267	6231784	24-Jul-21	26-Aug-21	Axel Chore	4.22	RSEM PAG pile. Black coloured PAG. Contents contain aggregate.
RSEM R5a	R5a-2021-Jul-24-17	RSEM Pile	Weathered Bedrock	Yes		627167	6231799	24-Jul-21	26-Aug-21	Axel Chore	5.46	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-18	RSEM Pile	Weathered Bedrock	Yes		627069	6231794.6	24-Jul-21	26-Aug-21	Axel Chore	4.26	
RSEM R5a	R5a-2021-Jul-24-19	RSEM Pile	Weathered Bedrock	No		627189	6231629.4	24-Jul-21	26-Aug-21	Axel Chore	4.97	RSEM PAG pile. Black coloured PAG. Contents contain aggregate.
RSEM R5a	R5a-2021-Jul-24-20	Active excavation area	Fresh Bedrock	No		627264	6231503.9	24-Jul-21	26-Aug-21	Axel Chore	7.31	Sample Duplicate 7.30<NL> RSEM PAG pile. Black coloured PAG.
RSEM R5a	R5a-2021-Jul-24-21	RSEM Pile	Weathered Bedrock	Yes		627371	6231275.1	24-Jul-21	26-Aug-21	Axel Chore	7.93	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-22	RSEM Pile	Fresh Bedrock	No		627505	6231156.9	24-Jul-21	26-Aug-21	Axel Chore	8.07	RSEM PAG pile. Black coloured PAG.
RSEM R5a	R5a-2021-Jul-24-23	RSEM Pile	Weathered Bedrock	Yes		627765	6230905.2	24-Jul-21	26-Aug-21	Axel Chore	8.01	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Jul-24-24	RSEM Pile	Weathered Bedrock	Yes		627865	6230849.3	24-Jul-21	26-Aug-21	Axel Chore	6.21	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-25	RSEM Pile	Weathered Bedrock	Yes		628197.5	6230491.2	14-Oct-21	6-Nov-21	Axel Chore	8.16	Sample Duplicate: 8.16<NL> RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-26	RSEM Pile	Weathered Bedrock	Yes		628170.1	6230541.1	14-Oct-21	6-Nov-21	Axel Chore	8.32	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-27	RSEM Pile	Weathered Bedrock	Yes		628107.8	6230619.9	14-Oct-21	8-Nov-21	Axel Chore	8.97	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-28	RSEM Pile	Weathered Bedrock	Yes		627945.4	6230784.3	14-Oct-21	6-Nov-21	Axel Chore	8.11	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-29	RSEM Pile	Weathered Bedrock	Yes		627920.5	6230865.1	14-Oct-21	6-Nov-21	Axel Chore	8.04	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-30	RSEM Pile	Weathered Bedrock	Yes		627861.4	6230936.3	14-Oct-21	6-Nov-21	Axel Chore	7.83	Sample Duplicate: 7.80 <NL>RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-31	RSEM Pile	Weathered Bedrock	Yes		627682.9	6231038.4	14-Oct-21	4-Nov-21	Axel Chore	8.94	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-32	RSEM Pile	Weathered Bedrock	Yes		627662.4	6231142.5	14-Oct-21	4-Nov-21	Axel Chore	2.35	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.

Table 1: 2021 Rinse pH Results

Sample Location	Sample ID	Sample Type	Material Type	Sulphides Visible	Overburden Type	Easting_m	Northing_m	Date Sampled	Date Analyzed	Operator	Rinse_pH	Notes
RSEM R5a	R5a-2021-Oct-14-33	RSEM Pile	Weathered Bedrock	Yes		627601.6	6231302.2	6-Oct-21	6-Nov-21	Axel Chore	2.65	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-34	RSEM Pile	Weathered Bedrock	Yes		627511.8	6231416.7	14-Oct-21	4-Nov-21	Axel Chore	7.99	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-35	RSEM Pile	Weathered Bedrock	No		627406.7	6231547.2	14-Oct-21	4-Nov-21	Axel Chore	6.72	Sample Duplicate: 6.69<NL>RSEM PAG pile. Black coloured PAG.
RSEM R5a	R5a-2021-Oct-14-36	RSEM Pile	Weathered Bedrock	Yes		627340.6	6231644.7	14-Oct-21	4-Nov-21	Axel Chore	2.87	
RSEM R5a	R5a-2021-Oct-14-37	RSEM Pile	Weathered Bedrock	Yes		627254.1	6231761.7	14-Oct-21	4-Nov-21	Axel Chore	2.59	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-38	RSEM Pile	Weathered Bedrock	Yes		627193	6231785.8	14-Oct-21	4-Nov-21	Axel Chore	2.25	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5a	R5a-2021-Oct-14-39	RSEM Pile	Weathered Bedrock	No		627134.4	6231770.2	14-Oct-21	4-Nov-21	Axel Chore	3.78	RSEM PAG pile. Black coloured PAG. Contents contain aggregate.
RSEM R5a	R5a-2021-Oct-14-40	RSEM Pile	Weathered Bedrock	No		627069.6	6231797.1	14-Oct-21	4-Nov-21	Axel Chore	6.23	Sample Duplicate: 6.26<NL> RSEM PAG pile. Black coloured PAG. Contents contain aggregate.
RSEM R5a	R5a-2021-Oct-14-41	RSEM Pile	Weathered Bedrock	Yes		627146.2	6231710.3	14-Oct-21	4-Nov-21	Axel Chore	2.45	
RSEM R5a	R5a-2021-Oct-14-42	RSEM Pile	Weathered Bedrock	Yes		627296.2	6231428	14-Oct-21	4-Nov-21	Axel Chore	6.48	
RSEM R5a	R5a-2021-Oct-14-43	RSEM Pile	Weathered Bedrock	Yes		627413.4	6231278.8	14-Oct-21	8-Nov-21	Axel Chore	6.82	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate. Road material.
RSEM R5a	R5a-2021-Oct-14-44	RSEM Pile	Weathered Bedrock	Yes		627750.2	6230908	14-Oct-21	4-Nov-21	Axel Chore	8.61	RSEM PAG pile. Black coloured PAG. Contents contain sulphides and aggregate.
RSEM R5b	R5b_West-2021-Apr-07-23	Exposed Surface	Weathered Bedrock	No		628595.6	6229846.8	7-Apr-21	1-May-21	Axel Chore	7.21	
RSEM R5b	R5b_West-2021-Apr-07-24	Exposed Surface	Weathered Bedrock	No		628600.1	6229776.5	7-Apr-21	1-May-21	Axel Chore	5.94	
RSEM R5b	R5b_West-2021-Apr-07-25	Exposed Surface	Weathered Bedrock	No		628641.3	6229725.2	7-Apr-21	1-May-21	Axel Chore	4.71	Sample Duplicate: 4.70
RSEM R5b	R5b_West-2021-Apr-07-26	Exposed Surface	Weathered Bedrock	No		628691	6229665.8	7-Apr-21	1-May-21	Axel Chore	2.61	
RSEM R5b	R5b_West-2021-Apr-07-27	Exposed Surface	Weathered Bedrock	No		628792.8	6229655.6	7-Apr-21	1-May-21	Axel Chore	8.08	
RSEM R5b	R5b_West-2021-Jul-24-25	Blast Holes	Weathered Bedrock	No		628579	6229811.5	24-Jul-21	26-Aug-21	Axel Chore	7.94	Sample Duplicate: 7.95<NL>Weathered PAG. The sample contains low moisture.
RSEM R5b	R5b_West-2021-Jul-24-26	Exposed Surface	Weathered Bedrock	No		628622	6229741.2	24-Jul-21	19-Aug-21	Axel Chore	4.7	
RSEM R5b	R5b_West-2021-Jul-24-27	Exposed Surface	Weathered Bedrock	No		628668	6229684.8	24-Jul-21	26-Aug-21	Axel Chore	4.27	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
RSEM R5b	R5b_West-2021-Jul-24-28	Exposed Surface	Weathered Bedrock	No		628814	6229634.8	24-Jul-21	26-Aug-21	Axel Chore	7.95	
RSEM R5b	R5b_West-2021-Oct-13-21	Exposed Surface	Weathered Bedrock	No		628587.1	6229819.1	13-Oct-21	6-Nov-21	Axel Chore	8.21	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
RSEM R5b	R5b_West-2021-Oct-13-22	Exposed Surface	Weathered Bedrock	No		628632.1	6229735	13-Oct-21	6-Nov-21	Axel Chore	4.23	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
RSEM R5b	R5b_West-2021-Oct-13-23	Exposed Surface	Weathered Bedrock	No		628658.6	6229695.6	13-Oct-21	6-Nov-21	Axel Chore	3.99	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG
RSEM R5b	R5b_West-2021-Oct-13-24	Exposed Surface	Weathered Bedrock	No		628686.9	6229654.2	13-Oct-21	6-Nov-21	Axel Chore	2.49	Exposed PAG rock face. Black coloured PAG. Contents contain weathered PAG.

Table 2: 2021 ABA Results

Sample ID	Lab Report ID	Sample Date	Paste pH	Rinse pH (on <2mm)	Total S	Sulphate S	Sulphide S	Non-Extractable S	Sulphide S (by diff.)	TAP	SAP	Modified NP	Net NP	NPR	Fizz Rating
			pH Units	pH Units	wt%	wt%	wt%	wt%	wt%	kg $CaCO_3$/t	kg $CaCO_3$/t	kg $CaCO_3$/t	kg $CaCO_3$/t	(Mod NP/TAP)	N/A
Left Bank															
L5-2021-MAY-04-77	ZZ7580	4-May-21	8.18	8.25	0.44	0.07	0.30	0.07	0.37	13.8	9.4	40.5	31.1	2.9	SLIGHT
L5-2021-APR-07-79[a]	ZZ7573	7-Apr-21	8.05	8.42	0.56	0.04	0.48	0.04	0.52	17.5	15.0	39.6	24.6	2.3	SLIGHT
L5-2021-OCT-13-18	AMX900	13-Oct-21	7.96	8.50	0.55	0.09	0.49	<0.02	0.46	17.2	15.3	17.4	2.1	1.0	NONE
L5EX 2021-JUL-25-78	AHN310	25-Jul-21	8.45	8.49	0.7	0.06	0.46	0.18	0.64	21.9	14.4	32.3	17.9	1.5	SLIGHT
LBEX-2021-OCT-13-06	AMX899	13-Oct-21	3.61	2.70	0.89	0.71	0.03	0.15	0.18	27.8	0.9	-1.3	-2.2	-0.047	NONE
Earthfill Dam												14.0			
LBDC-2021-APR-09-74[b]	ZZ7571	09-Apr-21	8.61	9.61	0.43	0.06	0.40	<0.02	0.37	13.4	12.5	9.00	-3.50	0.67	SLIGHT
LBCTE-2021-APR-09-59[c]	ZZ7569	09-Apr-21	7.22	7.52	0.70	0.04	0.69	<0.02	0.66	21.9	21.6	10.2	-11.4	0.47	SLIGHT
LBCTE-2021-APR-09-62	ZZ7579	09-Apr-21	7.97	8.34	0.63	0.03	0.58	0.02	0.60	19.7	18.1	12.2	-5.90	0.62	SLIGHT
LBCTE-2021-APR-09-64	ZZ7575	09-Apr-21	8.09	8.42	0.79	0.05	0.63	0.11	0.74	24.7	19.7	18.2	-1.50	0.74	SLIGHT
LBCTE-2021-APR-09-66	ZZ7570	09-Apr-21	8.25	9.19	0.51	0.03	0.46	0.02	0.48	15.9	14.4	14.3	-0.100	0.90	SLIGHT
LBCTE-2021-APR-09-68	ZZ7574	09-Apr-21	8.34	8.84	0.52	0.04	0.46	0.02	0.48	16.3	14.4	10.6	-3.80	0.65	SLIGHT
LBCTE-2021-APR-09-70	ZZ7578	09-Apr-21	7.56	7.65	0.78	0.07	0.75	<0.02	0.71	24.4	23.4	14.3	-9.10	0.59	SLIGHT
CT 2021-JUL-25-66	AHN308	25-Jul-21	7.75	8.01	0.79	0.06	0.6	0.13	0.73	24.7	18.8	12.6	-6.2	0.51	SLIGHT
CT-2021-NOV-03-83	AMX906	03-Nov-21	7.45	6.75	1.38	0.1	1.09	0.19	1.28	43.1	34.1	26.1	-8	0.61	SLIGHT
ZONE 8 2021-JUL-25-56	AHN307	25-Jul-21	7.65	7.64	0.5	0.07	0.38	0.05	0.43	15.6	11.9	12.2	0.3	0.78	SLIGHT
Right Bank															
R5A-2021-APR-07-09	ZZ7577	07-Apr-21	3.84	3.45	0.96	0.47	0.33	0.16	0.49	30.0	10.3	-2.70	-13.0	-0.090	NONE
R5A 2021-JUL-24-08	AHN311	24-Jul-21	5.35	3.71	1.33	0.29	0.74	0.3	1.04	41.6	23.1	4.8	-18.3	0.115	SLIGHT
R5A 2021-0JUL-24-17	AHN312	24-Jul-21	5.35	4.84	1.44	0.35	0.75	0.34	1.09	45.0	23.4	5.3	-18.1	0.118	SLIGHT
R5A-2021-OCT-14-27	AMX901	14-Oct-21	8.23	8.74	0.35	0.03	0.32	<0.02	0.32	10.9	10.0	5.7	-4.3	0.521	NONE
R5A-2021-OCT-14-43	AMX902	14-Oct-21	8.28	8.64	0.51	0.03	0.42	0.06	0.48	15.9	13.1	14	0.9	0.878	NONE
AUX SPILL-2021-APR-08-34	ZZ7572	08-Apr-21	4.08	3.45	1.07	0.50	0.40	0.17	0.57	33.4	12.5	0.0	-12.5	0	NONE
AC 2021- JUL-24 37	AHN309	24-Jul-21	2.92	2.41	1.03	0.82	0.02	0.19	0.21	32.2	0.6	-11.9	-12.5	-0.370	NONE
AC 2021- JUL-24 -47	AHN314	24-Jul-21	2.6	2.55	1.22	0.86	0.02	0.34	0.36	38.1	0.6	-14.3	-14.9	-0.375	NONE
AC-2021-OCT-15-62	AMX903	15-Oct-21	3.25	2.53	1.18	0.76	0.03	0.39	0.42	36.9	0.9	-10.8	-11.7	-0.293	NONE
AC-2021-OCT-15-72	AMX904	15-Oct-21	3.18	2.43	1.42	1.1	0.04	0.28	0.32	44.4	1.3	-18.4	-19.7	-0.415	NONE
AC-2021-NOV-03-99	AMX907	03-Nov-21	6.24	5.13	2.09	0.11	1.41	0.57	1.98	65.3	44.1	3	-41.1	0.046	NONE
ACDC-2021-APR-08-047	ZZ7568	08-Apr-21	2.63	2.47	0.83	0.86	0.01	<0.02	-0.03	25.9	0.3	-9.30	-9.60	-0.36	NONE
777-2021-APR-07-029	ZZ7576	07-Apr-21	3.51	2.99	1.58	0.40	0.92	0.26	1.18	49.4	28.8	0.500	-28.3	0.010	NONE
777 2021-JUL-24-30	AHN313	24-Jul-21	2.56	2.66	1.53	0.77	0.33	0.43	0.76	47.8	10.3	-14.9	-25.2	-0.312	NONE
777-2021-OCT-15-56	AMX905	15-Oct-21	3.1	2.48	1.67	0.94	0.43	0.3	0.73	52.2	13.4	-18.9	-32.3	-0.362	NONE

Notes:

[a]L5-2021-MAY-04-79 was mislabelled as R5A-2021-APR-07-79 on the lab report

[b]LBDC-2021-APR-09-74 was mislabelled as LBDA-2021-APR-09-74 on the lab report

[c]LBCTE-2021-APR-09-59 was mislabelled as RBCTE-2021-APR-09-59 on the lab report

Paste pH - Field and Laboratory Methods Applicable to Overburdens and Minesoils, (EPA 600 / 2-78-054, March 1978).

Rinse pH (on < 2mm) - MEND PREDICTION MANUAL, (MEND Report 1.20.1, December 2009).

Total sulphur, total carbon & carbonate carbon (CO2; HCl direct method) by Leco.

HCl Extractable Sulphur and HNO_3 Extractable Sulphur is based on a modified version of ASTM Method D 2492-02

Sulphide Sulphur (by diff.) = (Total Sulphur)-(Sulphate Sulphur)

Non Extractable Sulphur = (Total Sulphur)-(HCl Extractable Sulphate Sulphur)-(HNO_3 Extractable Sulphide Sulphur)

TAP = Total Acid Potential = Total S x 31.25

SAP = Sulphide Acid Potential = Sulphide S x 31.25

Modified ABA NP (Neutralization Potential) - MEND Acid Rock Drainage Prediction Manual, MEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.

Net Neutralization Potential = (Modified ABA Neutralization Potential)-(Acid Generation Potential (Sulphide S))

NPR = Neutralization Potential Ratio = (Neutralization Potential)/(Acid Generation Potential)

Fizz Rating - Reference method used is based on NP method.

Table 3: 2021 Solid Phase Elemental Results

Parameter	Units	ACA	Left Bank					Earthfill Dam										Right Bank													
			L5-2021-MAY-04-77	L5-2021-MAY-04-79[a]	L5-2021-OCT-13-18	L5EX 2021-JUL-25-78	LBEX-2021-OCT-13-06	LBDC-2021-APR-09-74[b]	LBCTE-2021-APR-09-59[c]	LBCTE-2021-APR-09-62	LBCTE-2021-APR-09-64	LBCTE-2021-APR-09-66	LBCTE-2021-APR-09-68	LBCTE-2021-APR-09-70	CT 2021-JUL-25-66	CT-2021-NOV-03-83	ZONE 8 2021-JUL-25-56	R5A-2021-APR-07-09	R5A 2021-JUL-24-08	R5A 2021-0JUL-24-17	R5A-2021-OCT-14-27	R5A-2021-OCT-14-43	AC 2021-JUL-24 37	AC 2021-JUL-24 -47	AC-2021-OCT-15-62	AC-2021-OCT-15-72	AC-2021-NOV-03-99	AUX SPILL-2021-APR-08-34	ACDC-2021-APR-08-047	777-2021-APR-07-029	777 2021-JUL-24-30	777-2021-OCT-15-56
BV Labs Sample ID			*ZZ7580*	*ZZ7573*	*AMX900*	*AHN310*	*AMX899*	*ZZ7571*	*ZZ7569*	*ZZ7579*	*ZZ7575*	*ZZ7570*	*ZZ7574*	*ZZ7578*	*AHN308*	*AMX906*	*AHN307*	*ZZ7577*	*AHN311*	*AHN312*	*AMX901*	*AMX902*	*AHN309*	*AHN314*	*AMX903*	*AMX904*	*AMX907*	*ZZ7572*	*ZZ7568*	*ZZ7576*	*AHN313*	*AMX905*
Ag	ppb	53	207	225	268	263	227	298	243	279	244	267	275	250	271	302	244	371	361	373	238	266	405	410	416	422	414	365	350	449	392	419
Al	%	8.15	0.76	0.91	2.11	0.85	1.82	0.94	1.04	1.02	0.85	0.91	0.85	1.06	0.7	1.98	0.78	0.94	0.68	0.64	2.15	1.96	0.59	0.61	1.94	2.12	2.07	0.92	0.88	0.93	0.66	2.13
As	ppm	4.8	7.5	9.6	11.4	11.7	16.9	7.2	11.3	10	8.1	8.3	7.3	10.7	10.1	12.2	10.2	9.3	12.8	12.5	12.7	9.3	10.9	13.3	13.8	12.6	14.2	9.8	13.1	14.2	14	15
Au	ppb	1.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2	<0.2	0.3	<0.2	0.2	<0.2	<0.2	0.5	<0.5	0.6	<0.2	0.8	<0.2	<0.5	<0.5	<0.2	0.5	<0.5	<0.5	<0.5	0.4	<0.2	<0.2	0.5	<0.5
B	ppm	17	<20	<20	28	<20	14	<20	<20	<20	<20	<20	<20	<20	<20	26	<20	<20	<20	<20	26	26	<20	<20	20	21	19	<20	<20	<20	<20	18
Ba	ppm	628	367	470	14.2	375	11.8	469	213	421	652	473	402	365	395	7.6	616	453	303	256	27.8	14.6	245	239	5.8	5.5	4.2	321	214	219	291	4.1
Be	ppm	2.1	-	-	1.1	-	0.7	-	-	-	-	-	-	-	-	1	-	-	-	-	1.1	1	-	-	0.9	1	1	-	-	-	-	1
Bi	ppm	0.16	0.15	0.21	0.22	0.23	0.24	0.21	0.23	0.26	0.2	0.2	0.2	0.22	0.25	0.2	0.37	0.28	0.28	0.28	0.21	0.18	0.32	0.3	0.29	0.28	0.29	0.29	0.28	0.3	0.31	0.25
Ca	%	2.57	1.44	1.22	0.61	1.48	0.29	0.43	0.56	0.59	0.8	0.58	0.47	0.71	0.68	1.19	0.64	0.26	0.55	0.68	0.3	0.66	0.3	0.5	0.4	0.38	0.38	0.33	0.29	0.37	0.36	0.39
Cd	ppm	0.09	0.29	0.2	0.26	0.33	0.28	0.23	0.22	0.21	0.18	0.21	0.18	0.21	0.21	0.56	0.25	0.33	0.54	0.62	0.21	0.17	0.38	0.34	0.12	0.37	0.65	0.37	0.17	0.75	0.68	0.6
Ce	ppm	63	-	-	23.9	-	19.1	-	-	-	-	-	-	-	-	17.5	-	-	-	-	28.5	23.6	-	-	17.3	17.9	19.1	-	-	-	-	16.7
Co	ppm	17.3	7.6	9.9	9.5	8.3	4.7	9.7	11.1	11.1	9.3	9.4	9.7	11.1	9.5	8.4	12.8	8.2	8.8	7.8	11.2	8.4	4.3	4.1	3	5.6	10.2	11.4	7.5	8.2	8	7.9
Cr	ppm	92	56.8	26.1	52	29.9	39	26.7	27.6	28	24.7	29.3	33.8	30.3	21.7	98	15.4	20.7	22.9	18.6	41	51	12.8	12.2	35	37	38	22	21.9	20.3	13.3	43
Cs	ppm	4.9	-	-	1.23	-	1.13	-	-	-	-	-	-	-	-	1.21	-	-	-	-	1.14	1.12	-	-	1.3	1.44	1.12	-	-	-	-	1.14
Cu	ppm	28	20	24.8	29.3	24.1	20.3	25.3	26	26.8	24.5	23.5	24.1	26.7	22.4	36	28.8	31	30.8	29.9	31.6	26	29.8	22.7	30.6	33.9	39	34.1	22.3	35.8	32.8	38.2
Dy	ppm	-	-	-	2.9	-	0.9	-	-	-	-	-	-	-	-	2.1	-	-	-	-	3.1	2.8	-	-	1	1.9	2.7	-	-	-	-	2.4
Er	ppm	-	-	-	1.3	-	0.3	-	-	-	-	-	-	-	-	0.9	-	-	-	-	1.3	1.2	-	-	0.4	0.7	1.1	-	-	-	-	1.1
Eu	ppm	-	-	-	0.9	-	0.4	-	-	-	-	-	-	-	-	0.7	-	-	-	-	1	0.8	-	-	0.4	0.6	0.8	-	-	-	-	0.7
Fe	%	3.92	1.92	1.78	2.53	1.92	2.12	1.65	2.01	1.97	3.72	2.31	1.74	2.11	1.99	2.28	1.59	1.59	2.04	2	1.94	2.14	1.78	1.88	2.26	2.31	2.47	1.64	1.84	2.82	2.08	2.47
Ga	ppm	17.5	2.4	2.5	7.19	2.2	6.94	2.7	2.9	2.8	2.3	2.6	2.3	2.8	1.9	6.58	1.9	2.5	1.9	1.8	7.24	6.6	1.7	1.7	6.83	7.17	6.82	2.4	2.5	2.5	1.8	7.16
Gd	ppm	-	-	-	3.7	-	1.5	-	-	-	-	-	-	-	-	3	-	-	-	-	4.2	3.7	-	-	1.6	2.5	3.7	-	-	-	-	3.4
Ge	ppm	1.4	-	-	< 0.1	-	< 0.1	-	-	-	-	-	-	-	-	< 0.1	-	-	-	-	< 0.1	< 0.1	-	-	< 0.1	< 0.1	< 0.1	-	-	-	-	< 0.1
Hf	ppm	5.3	-	-	< 0.1	-	< 0.1	-	-	-	-	-	-	-	-	< 0.1	-	-	-	-	< 0.1	< 0.1	-	-	< 0.1	< 0.1	< 0.1	-	-	-	-	< 0.1
Hg	ppb	50	48	60	60	58	70	50	86	59	54	62	49	82	75	50	41	67	89	84	30	50	87	95	80	70	70	69	91	84	106	60
Ho	ppm	-	-	-	0.5	-	0.1	-	-	-	-	-	-	-	-	0.3	-	-	-	-	0.5	0.4	-	-	0.2	0.3	0.4	-	-	-	-	0.4
In	ppm	0.056	-	-	0.05	-	0.04	-	-	-	-	-	-	-	-	0.04	-	-	-	-	0.04	0.04	-	-	0.04	0.05	0.05	-	-	-	-	0.03
K	%	2.32	0.18	0.23	0.53	0.21	0.46	0.25	0.27	0.26	0.22	0.24	0.22	0.26	0.19	0.47	0.21	0.27	0.21	0.2	0.54	0.48	0.25	0.24	0.57	0.59	0.51	0.27	0.29	0.26	0.22	0.58
La	ppm	31	5.4	4.9	11.9	5.7	9.7	5.2	5.7	5.4	4.5	5.2	4.6	5.3	3.9	8.6	4.4	4.2	3.6	3.6	14.1	11.5	3.3	3	8.4	9	9.3	4.4	4.8	4.4	3.4	7.7
Li	ppm	24	-	-	29.7	-	16.9	-	-	-	-	-	-	-	-	17.2	-	-	-	-	33.4	26.5	-	-	14.9	19.3	18.8	-	-	-	-	20.7
Lu	ppm	0.31	-	-	0.1	-	< 0.1	-	-	-	-	-	-	-	-	< 0.1	-	-	-	-	< 0.1	< 0.1	-	-	< 0.1	< 0.1	< 0.1	-	-	-	-	< 0.1
Mg	%	1.5	0.4	0.63	0.44	0.32	0.22	0.24	0.29	0.29	0.51	0.32	0.26	0.3	0.26	0.51	0.33	0.27	0.28	0.29	0.32	0.44	0.17	0.18	0.24	0.37	0.37	0.26	0.2	0.38	0.26	0.41
Mn	ppm	774	213	132	162	159	57	98	120	118	225	145	122	122	125	134	200	57	85	94	114	149	43	35	30	49	95	69	43	80	63	62
Mo	ppm	1.1	1.09	0.59	0.81	0.98	6.84	0.7	0.49	0.59	0.64	0.62	0.64	0.53	0.75	3.04	0.43	1.22	2.91	3.3	0.37	0.58	3.76	4.03	3.31	2.95	3.54	0.88	1.29	4.35	3.35	3.24
Na	%	2.43	0.124	0.09	0.167	0.182	0.053	0.171	0.03	0.075	0.03	0.097	0.113	0.044	0.08	0.046	0.052	0.295	0.102	0.025	0.19	0.075	0.019	0.051	0.098	0.043	0.031	0.17	0.01	0.026	0.032	0.056
Nb	ppm	12	-	-	< 0.1	-	< 0.1	-	-	-	-	-	-	-	-	< 0.1	-	-	-	-	< 0.1	< 0.1	-	-	< 0.1	< 0.1	< 0.1	-	-	-	-	< 0.1
Nd	ppm	-	-	-	14.9	-	10.1	-	-	-	-	-	-	-	-	10.9	-	-	-	-	17.1	14.5	-	-	9.17	10.5	12.3	-	-	-	-	11
Ni	ppm	47	23.7	24.5	26	24.8	13	27	27.7	26.9	23.8	25	25.5	29.2	23.2	28.7	32.5	28.6	28.3	26.9	25.8	23.4	15.8	15	11.3	21.8	36.3	32.8	28.3	30.3	29.1	28.6
P	%	0.0655	0.077	0.082	0.102	0.208	0.042	0.089	0.086	0.085	0.086	0.087	0.081	0.084	0.088	0.068	0.081	0.056	0.071	0.068	0.1	0.12	0.05	0.059	0.056	0.056	0.069	0.064	0.068	0.064	0.069	0.07
Pb	ppm	17	9.93	12.2	13.7	13.3	15	12.1	12.5	13.3	13	11.2	11.7	13.5	11.9	14.1	15.2	16.8	15.7	15.2	14.4	11.9	16.3	16.8	17.2	17.3	17.3	16.2	15.9	17.2	16.5	16
Pr	ppm	-	-	-	3.2	-	2.4	-	-	-	-	-	-	-	-	2.3	-	-	-	-	3.8	3.2	-	-	2.1	2.3	2.6	-	-	-	-	2.3
Rb	ppm	84	-	-	23.9	-	6	-	-	-	-	-	-	-	-	22.4	-	-	-	-	23.8	21.8	-	-	26.6	28.4	23	-	-	-	-	25.4
Re	ppm	-	-	-	< 0.001	-	0.006	-	-	-	-	-	-	-	-	0.005	-	-	-	-	< 0.001	< 0.001	-	-	0.006	0.007	0.02	-	-	-	-	0.007
S	%	0.0621	0.41	0.49	< 1	0.66	< 1	0.41	0.64	0.59	0.7	0.44	0.47	0.79	0.7	1	0.46	0.93	1.29	1.34	< 1	< 1	0.97	1.21	1	2	2	0.99	0.8	1.54	1.48	2
Sb	ppm	0.4	0.19	0.11	0.23	0.34	0.28	0.11	0.13	0.11	0.14	0.13	0.13	0.12	0.27	0.18	0.2	0.11	0.23	0.27	0.13	0.2	0.14	0.19	0.09	0.07	0.13	0.09	0.07	0.09	0.2	0.06
Sc	ppm	14	3.6	4.3	5.7	4	4.2	4.4	4.8	4.8	5.1	4.4	4.1	4.9	3.8	5.3	4.1	4.5	4.2	3.7	6.3	5.2	2.8	3.2	4.6	5.4	5.9	4.8	4.1	5.3	4.2	6
Se	ppm	0.09	0.6	1	< 0.1	1.1	0.9	0.8	0.7	1	0.8	0.9	0.8	0.9	0.9	0.6	1.2	1	1.3	1.4	< 0.1	< 0.1	1.6	1.6	1.1	0.9	0.8	1.1	1.1	1.7	1.4	0.8
Sm	ppm	-	-	-	3.2	-	2	-	-	-	-	-	-	-	-	2.6	-	-	-	-	3.7	3.4	-	-	1.6	2.4	3	-	-	-	-	2.8
Sn	ppm	-	-	-	0.75	-	0.55	-	-	-	-	-	-	-	-	0.67	-	-	-	-	0.65	0.65	-	-	0.58	0.54	0.71	-	-	-	-	0.55
Sr	ppm	320	59.1	61.9	71.7	103	72.4	66.5	43.9	59.6	49.5	66.4	55.8	52.7	61.5	55	55.4	67.9	65.1	42.3	79.6	68.4	23.7	49.5	59.2	47.5	38	58.1	30.7	52.5	56.2	45.2
Ta	ppm	0.9	-	-	< 0.05	-	< 0.05	-	-	-	-	-	-	-	-	< 0.05	-	-	-	-	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.05	-	-	-	-	< 0.05
Tb	ppm	0.9	-	-	0.6	-	0.2	-	-	-	-	-	-	-	-	0.4	-	-	-	-	0.6	0.6	-	-	0.2	0.4	0.5	-	-	-	-	0.5
Te	ppm	-	0.04	0.06	< 0.02	0.05	0.16	0.06	0.07	0.07	0.06	0.05	0.07	0.05	0.05	< 0.02	0.06	0.05	0.06	0.09	< 0.02	< 0.02	0.07	0.07	0.03	< 0.02	< 0.02	0.06	0.05	0.07	0.04	< 0.02
Th	ppm	10.5	4.6	6.2	5.9	6.8	4	6.4	6.8	6.7	5.8	6	6.2	6.9	7.5	4.4	7.8	6.9	7.4	6.9	6.3	5.4	6.8	7	4.2	3.8	5.7	6.8	7.4	6.6	7.9	4.6
Ti	%	0.384	0.006	0.002	0.002	0.003	< 0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.001	<0.001	0.001	0.001	0.001	0.002	<0.001	<0.001	< 0.001	< 0.001	< 0.001	0.001	0.001	0.001	0.001	< 0.001
Tl	ppm	0.9	0.06	0.05	< 0.02	0.06	< 0.02	0.05	0.06	0.05	0.05	0.06	0.05	0.06	0.07	< 0.02	0.05	0.08	0.1	0.14	< 0.02	< 0.02	0.16	0.17	< 0.02	< 0.02	< 0.02	0.06	0.1	0.12	0.17	< 0.02
Tm	ppm	-	-	-	0.1	-	< 0.1	-	-	-	-	-	-	-	-	< 0.1	-	-	-	-	0.2	0.1	-	-	< 0.1	< 0.1	0.1	-	-	-	-	0.1
U	ppm	2.7	1	1.4	1.4	1.5	1.3	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1	1.1	1	1.2	1.3	1.4	1.3	0.7	0.9	0.4	0.8	2.8	1	0.8	1.3	1.3	1.2
V	ppm	97	26	24	55	24	51	25	26	26	28	26	23	27	18	56	18	23	20	20	54	53	18	19	56	60	57	26	24	28	19	59
W	ppm	1.9	<0.1	<0.1	< 0.1	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	< 0.1	<0.1	<0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	< 0.1
Y	ppm	21	-	-	12.4	-	2.88	-	-	-	-	-	-	-	-	9.37	-	-	-	-	12.9	12.9	-	-	4.26	7.4	10.8	-	-	-	-	10.4
Yb	ppm	2	-	-	0.8	-	0.2	-	-	-	-	-	-	-	-	0.5	-	-	-	-	0.8	0.8	-	-	0.3	0.4	0.6	-	-	-	-	0.6
Zn	ppm	67	80.8	101	116	98.6	63.8	104	113	109	97.1	102	96.8	104	91.6	118	128	109	116	123	129	102	68.8	68.8	69.8	94.7	146	138	76.6	210	132	132
Zr	ppm	193	-	-	0.8	-	1.5	-	-	-	-	-	-	-	-	1	-	-	-	-	0.5	0.5	-	-	1	0.9	2.1	-	-	-	-	1.4

Notes:

[a]L5-2021-MAY-04-79 was mislabelled as R5A-2021-APR-07-79 on the lab report

[b]LBDC-2021-APR-09-74 was mislabelled as LBDA-2021-APR-09-74 on the lab report

[c]LBCTE-2021-APR-09-59 was mislabelled as RBCTE-2021-APR-09-59 on the lab report

ACA: Average Upper Continental Crustal Abundance (Rudnick & Gao, 2014)

Values shaded in light grey exceed 3x the ACA

Values shaded in dark grey exceed 10x the ACA

Appendix2-C: Dredgeate Laboratory Results

PEACE RIVER
HYDRO PARTNERS

Your P.O. #: 34974
Your C.O.C. #: 24538

Attention: Kael Hanak

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2020/05/28
Report #: R2883922
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C033147
Received: 2020/05/15, 13:00

Sample Matrix: Sludge
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BC Hydrocarbons in Soil by GC/FID (1)	1	2020/05/21	2020/05/22	CAL SOP-00239	BCMOE EPH S 12/16
EPH less PAH in Soil By GC/FID (1)	1	N/A	2020/05/24		Auto Calc
Elements by ICPMS (total) (1)	1	2020/05/25	2020/05/26	CAL SOP-00265	EPA 6020 m
ICPMS Metals on TCLP Leachate (1, 2)	1	2020/05/26	2020/05/27	AB SOP-00043	EPA 6020b R2 m
Moisture (1)	1	N/A	2020/05/22	AB SOP-00002	CCME PHC-CWS m
PAH in Soil by GC/MS (1)	1	2020/05/21	2020/05/22	AB SOP-00003 AB SOP-00036	EPA 3540C/8270E m
Total LMW, HMW, Total PAH Calc (1)	1	N/A	2020/05/24		Auto Calc
TCLP pH Measurements (1)	1	2020/05/26	2020/05/27	AB SOP-00006	SM 23 4500 H+B m
pH (2:1 DI Water Extract) (1)	1	2020/05/25	2020/05/25	AB SOP-00033 / AB SOP-00006	SM 23 4500 H+B m
Total Oil and Grease	1	2020/05/26	2020/05/26	BBY8SOP-00006	BCMOE BCLM Mar 1997
Volatile HC-BTEX (1)	1	2020/05/21	2020/05/25		Auto Calc
BTEX/MTBE/Styrene/VPH in Soil GC/MS/FID (1)	1	N/A	2020/05/25	CAL SOP-00240	BC MELP VH 2014

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Your P.O. #: 34974
Your C.O.C. #: 24538

Attention: Kael Hanak

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2020/05/28
Report #: R2883922
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C033147
Received: 2020/05/15, 13:00

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by BV Labs Calgary Environmental
(2) Samples were extracted as per EPA 1311 unless otherwise noted in the report.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Debbie Nordbruget, Key Account Specialist
Email: Debra.NORDBRUGET@bvlabs.com
Phone# (250)385-6112
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C033147
Report Date: 2020/05/28

LORAX ENVIRONMENTAL SERVICES LTD.
Your P.O. #: 34974
Sampler Initials: LB

RESULTS OF CHEMICAL ANALYSES OF SLUDGE

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	**MWTF-SLP**	**RDL**	**QC Batch**
Misc. Inorganics				
Leachable Initial pH of Sample	pH	9.52	N/A	9862034
Leachable pH after HCl	pH	5.71	N/A	9862034
Leachable Final pH of Leachate	pH	5.93	N/A	9862034
OIL & GREASE				
Total Oil and grease	ug/g	ND (1)	350	9861170
Physical Properties				
Soluble (2:1) pH	pH	8.56	N/A	9859031

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limit raised due to high moisture.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

LORAX ENVIRONMENTAL SERVICES LTD.
Your P.O. #: 34974
Sampler Initials: LB

PHYSICAL TESTING (SLUDGE)

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	MWTF-SLP	RDL	QC Batch
Physical Properties				
Moisture	%	71	0.30	9857585
RDL = Reportable Detection Limit				

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

SEMIVOLATILE ORGANICS BY GC-MS (SLUDGE)

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	MWTF-SLP	RDL	QC Batch
Polycyclic Aromatics				
Acenaphthene	mg/kg	ND (1)	0.016	9857798
Acenaphthylene	mg/kg	ND (1)	0.016	9857798
Acridine	mg/kg	ND (1)	0.16	9857798
Anthracene	mg/kg	ND (1)	0.013	9857798
Benzo(a)anthracene	mg/kg	ND (1)	0.032	9857798
Benzo(b&j)fluoranthene	mg/kg	0.043 (1)	0.032	9857798
Benzo(k)fluoranthene	mg/kg	ND (1)	0.032	9857798
Benzo(g,h,i)perylene	mg/kg	0.079 (1)	0.064	9857798
Benzo(a)pyrene	mg/kg	ND (1)	0.032	9857798
Chrysene	mg/kg	ND (1)	0.032	9857798
Dibenz(a,h)anthracene	mg/kg	ND (1)	0.064	9857798
Fluoranthene	mg/kg	ND (1)	0.032	9857798
Fluorene	mg/kg	0.047 (1)	0.032	9857798
Indeno(1,2,3-cd)pyrene	mg/kg	ND (1)	0.064	9857798
1-Methylnaphthalene	mg/kg	0.32 (1)	0.032	9857798
2-Methylnaphthalene	mg/kg	0.51 (1)	0.032	9857798
Naphthalene	mg/kg	0.35 (1)	0.032	9857798
Phenanthrene	mg/kg	0.17 (1)	0.032	9857798
Pyrene	mg/kg	0.055 (1)	0.032	9857798
Quinoline	mg/kg	ND (1)	0.064	9857798
Low Molecular Weight PAH`s	mg/kg	1.1	0.16	9857059
High Molecular Weight PAH`s	mg/kg	0.18	0.064	9857059
Total PAH	mg/kg	1.3	0.16	9857059
Surrogate Recovery (%)				
D10-ANTHRACENE (sur.)	%	83		9857798
D8-ACENAPHTHYLENE (sur.)	%	79		9857798
D8-NAPHTHALENE (sur.)	%	77		9857798
D9-Acridine (sur.)	%	40 (2)		9857798

RDL = Reportable Detection Limit

(1) Detection limits raised due to high moisture content, sample contains => 50% moisture.

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

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SEMIVOLATILE ORGANICS BY GC-MS (SLUDGE)

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	**MWTF-SLP**	**RDL**	**QC Batch**
TERPHENYL-D14 (sur.)	%	105		9857798
RDL = Reportable Detection Limit				

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

ELEMENTS BY ATOMIC SPECTROSCOPY (SLUDGE)

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	MWTF-SLP	RDL	QC Batch
Elements				
Leachable Antimony (Sb)	mg/L	ND	1.0	9862293
Leachable Arsenic (As)	mg/L	ND	0.50	9862293
Leachable Barium (Ba)	mg/L	1.0	1.0	9862293
Leachable Beryllium (Be)	mg/L	ND	0.50	9862293
Leachable Boron (B)	mg/L	ND	1.0	9862293
Leachable Cadmium (Cd)	mg/L	ND	0.10	9862293
Leachable Chromium (Cr)	mg/L	ND	0.50	9862293
Leachable Cobalt (Co)	mg/L	ND	1.0	9862293
Leachable Copper (Cu)	mg/L	ND	1.0	9862293
Leachable Iron (Fe)	mg/L	4.6	1.0	9862293
Leachable Lead (Pb)	mg/L	ND	0.50	9862293
Leachable Mercury (Hg)	mg/L	ND	0.020	9862293
Leachable Nickel (Ni)	mg/L	0.52	0.50	9862293
Leachable Selenium (Se)	mg/L	ND	0.10	9862293
Leachable Silver (Ag)	mg/L	ND	0.50	9862293
Leachable Thallium (Tl)	mg/L	ND	0.50	9862293
Leachable Uranium (U)	mg/L	ND	0.20	9862293
Leachable Vanadium (V)	mg/L	ND	1.0	9862293
Leachable Zinc (Zn)	mg/L	ND	1.0	9862293
Leachable Zirconium (Zr)	mg/L	ND	1.0	9862293
Total Metals by ICPMS				
Total Aluminum (Al)	mg/kg	9470	100	9860174
Total Antimony (Sb)	mg/kg	1.06	0.10	9860174
Total Arsenic (As)	mg/kg	10.7	0.20	9860174
Total Barium (Ba)	mg/kg	666	0.10	9860174
Total Beryllium (Be)	mg/kg	0.69	0.20	9860174
Total Bismuth (Bi)	mg/kg	0.18	0.10	9860174
Total Cadmium (Cd)	mg/kg	0.798	0.050	9860174
Total Calcium (Ca)	mg/kg	94600 (1)	2000	9860174
Total Chromium (Cr)	mg/kg	19.2	0.50	9860174

RDL = Reportable Detection Limit
ND = Not detected
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

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ELEMENTS BY ATOMIC SPECTROSCOPY (SLUDGE)

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	MWTF-SLP	RDL	QC Batch
Total Cobalt (Co)	mg/kg	18.6	0.10	9860174
Total Copper (Cu)	mg/kg	33.6	0.50	9860174
Total Iron (Fe)	mg/kg	26200	100	9860174
Total Lead (Pb)	mg/kg	11.0	0.10	9860174
Total Lithium (Li)	mg/kg	17.2	0.50	9860174
Total Magnesium (Mg)	mg/kg	7030	100	9860174
Total Manganese (Mn)	mg/kg	464	0.20	9860174
Total Mercury (Hg)	mg/kg	0.055	0.050	9860174
Total Molybdenum (Mo)	mg/kg	2.49	0.10	9860174
Total Nickel (Ni)	mg/kg	62.6	0.50	9860174
Total Phosphorus (P)	mg/kg	830	10	9860174
Total Potassium (K)	mg/kg	1950	100	9860174
Total Selenium (Se)	mg/kg	1.25	0.50	9860174
Total Silver (Ag)	mg/kg	0.191	0.050	9860174
Total Sodium (Na)	mg/kg	1560	100	9860174
Total Strontium (Sr)	mg/kg	293 (1)	1.0	9860174
Total Thallium (Tl)	mg/kg	0.107	0.050	9860174
Total Tin (Sn)	mg/kg	1.44	0.10	9860174
Total Titanium (Ti)	mg/kg	23.6	1.0	9860174
Total Uranium (U)	mg/kg	2.94	0.050	9860174
Total Vanadium (V)	mg/kg	32.1	1.0	9860174
Total Zinc (Zn)	mg/kg	179	1.0	9860174
Total Zirconium (Zr)	mg/kg	3.52	0.50	9860174

RDL = Reportable Detection Limit

(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BTEX BY GC-MS (SLUDGE)

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	MWTF-SLP	RDL	QC Batch
Volatiles				
Xylenes (Total)	mg/kg	0.63	0.25	9857060
VH C6-C10	mg/kg	ND	38	9857060
VPH (VH6 to 10 - BTEX)	mg/kg	ND	38	9857060
Field Preserved Volatiles				
Methyl-tert-butylether (MTBE)	mg/kg	ND (1)	0.44	9860165
Benzene	mg/kg	0.12 (1)	0.022	9860165
Toluene	mg/kg	0.34 (1)	0.22	9860165
Ethylbenzene	mg/kg	0.20 (1)	0.044	9860165
m & p-Xylene	mg/kg	0.33 (1)	0.18	9860165
o-Xylene	mg/kg	0.30 (1)	0.18	9860165
Styrene	mg/kg	0.45 (1)	0.13	9860165
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	99		9860165
4-Bromofluorobenzene (sur.)	%	96		9860165
D10-o-Xylene (sur.)	%	99		9860165
D4-1,2-Dichloroethane (sur.)	%	90		9860165

RDL = Reportable Detection Limit
ND = Not detected
(1) Detection limits raised due to high moisture content, sample contains >= 50% moisture. Detection limits raised based on sample weight used for analysis.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C033147
Report Date: 2020/05/28

LORAX ENVIRONMENTAL SERVICES LTD.
Your P.O. #: 34974
Sampler Initials: LB

TOTAL PETROLEUM HYDROCARBONS (SLUDGE)

BV Labs ID		XT9969		
Sampling Date		2020/05/14 11:45		
COC Number		24538		
	UNITS	MWTF-SLP	RDL	QC Batch
Ext. Pet. Hydrocarbon				
EPH (C10-C19)	mg/kg	ND (1)	340	9857772
EPH (C19-C32)	mg/kg	ND (1)	340	9857772
LEPH (C10-C19 less PAH)	mg/kg	ND	340	9857062
HEPH (C19-C32 less PAH)	mg/kg	ND	340	9857062
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	95		9857772

RDL = Reportable Detection Limit
ND = Not detected
(1) Detection limits raised due to high moisture content, sample contains => 50% moisture.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

GENERAL COMMENTS

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

Package 1	11.3°C

Results relate only to the items tested.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C033147
Report Date: 2020/05/28

LORAX ENVIRONMENTAL SERVICES LTD.
Your P.O. #: 34974
Sampler Initials: LB

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9857585	RV5	Method Blank	Moisture	2020/05/22	ND, RDL=0.30		%	
9857585	RV5	RPD	Moisture	2020/05/22	2.8		%	20
9857772	LSH	Matrix Spike	O-TERPHENYL (sur.)	2020/05/22		100	%	60 - 140
			EPH (C10-C19)	2020/05/22		90	%	60 - 130
			EPH (C19-C32)	2020/05/22		89	%	60 - 130
9857772	LSH	Spiked Blank	O-TERPHENYL (sur.)	2020/05/22		98	%	60 - 140
			EPH (C10-C19)	2020/05/22		88	%	70 - 130
			EPH (C19-C32)	2020/05/22		89	%	70 - 130
9857772	LSH	Method Blank	O-TERPHENYL (sur.)	2020/05/22		98	%	60 - 140
			EPH (C10-C19)	2020/05/22	ND, RDL=100		mg/kg	
			EPH (C19-C32)	2020/05/22	ND, RDL=100		mg/kg	
9857772	LSH	RPD	EPH (C10-C19)	2020/05/22	NC		%	50
			EPH (C19-C32)	2020/05/22	3.5		%	50
9857798	NK3	Matrix Spike	D10-ANTHRACENE (sur.)	2020/05/22		88	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2020/05/22		86	%	50 - 140
			D8-NAPHTHALENE (sur.)	2020/05/22		85	%	50 - 140
			D9-Acridine (sur.)	2020/05/22		61	%	50 - 140
			TERPHENYL-D14 (sur.)	2020/05/22		104	%	50 - 140
			Acenaphthene	2020/05/22		89	%	50 - 140
			Acenaphthylene	2020/05/22		85	%	50 - 140
			Acridine	2020/05/22		61	%	50 - 140
			Anthracene	2020/05/22		63	%	50 - 140
			Benzo(a)anthracene	2020/05/22		90	%	50 - 140
			Benzo(b&j)fluoranthene	2020/05/22		77	%	50 - 140
			Benzo(k)fluoranthene	2020/05/22		76	%	50 - 140
			Benzo(g,h,i)perylene	2020/05/22		61	%	50 - 140
			Benzo(a)pyrene	2020/05/22		77	%	50 - 140
			Chrysene	2020/05/22		92	%	50 - 140
			Dibenz(a,h)anthracene	2020/05/22		80	%	50 - 140
			Fluoranthene	2020/05/22		86	%	50 - 140
			Fluorene	2020/05/22		86	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2020/05/22		72	%	50 - 140
			1-Methylnaphthalene	2020/05/22		83	%	50 - 140
			2-Methylnaphthalene	2020/05/22		83	%	50 - 140
			Naphthalene	2020/05/22		87	%	50 - 140
			Phenanthrene	2020/05/22		87	%	50 - 140
			Pyrene	2020/05/22		84	%	50 - 140
			Quinoline	2020/05/22		103	%	50 - 140
9857798	NK3	Spiked Blank	D10-ANTHRACENE (sur.)	2020/05/22		94	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2020/05/22		97	%	50 - 140
			D8-NAPHTHALENE (sur.)	2020/05/22		96	%	50 - 140
			D9-Acridine (sur.)	2020/05/22		71	%	50 - 140
			TERPHENYL-D14 (sur.)	2020/05/22		116	%	50 - 140
			Acenaphthene	2020/05/22		95	%	50 - 140
			Acenaphthylene	2020/05/22		93	%	50 - 140
			Acridine	2020/05/22		71	%	50 - 140
			Anthracene	2020/05/22		67	%	50 - 140
			Benzo(a)anthracene	2020/05/22		108	%	50 - 140
			Benzo(b&j)fluoranthene	2020/05/22		91	%	50 - 140
			Benzo(k)fluoranthene	2020/05/22		97	%	50 - 140
			Benzo(g,h,i)perylene	2020/05/22		67	%	50 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzo(a)pyrene	2020/05/22		88	%	50 - 140
			Chrysene	2020/05/22		110	%	50 - 140
			Dibenz(a,h)anthracene	2020/05/22		71	%	50 - 140
			Fluoranthene	2020/05/22		94	%	50 - 140
			Fluorene	2020/05/22		94	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2020/05/22		90	%	50 - 140
			1-Methylnaphthalene	2020/05/22		93	%	50 - 140
			2-Methylnaphthalene	2020/05/22		91	%	50 - 140
			Naphthalene	2020/05/22		97	%	50 - 140
			Phenanthrene	2020/05/22		94	%	50 - 140
			Pyrene	2020/05/22		92	%	50 - 140
			Quinoline	2020/05/22		107	%	50 - 140
9857798	NK3	Method Blank	D10-ANTHRACENE (sur.)	2020/05/22		94	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2020/05/22		94	%	50 - 140
			D8-NAPHTHALENE (sur.)	2020/05/22		92	%	50 - 140
			D9-Acridine (sur.)	2020/05/22		66	%	50 - 140
			TERPHENYL-D14 (sur.)	2020/05/22		122	%	50 - 140
			Acenaphthene	2020/05/22	ND, RDL=0.0050		mg/kg	
			Acenaphthylene	2020/05/22	ND, RDL=0.0050		mg/kg	
			Acridine	2020/05/22	ND, RDL=0.050		mg/kg	
			Anthracene	2020/05/22	ND, RDL=0.0040		mg/kg	
			Benzo(a)anthracene	2020/05/22	ND, RDL=0.010		mg/kg	
			Benzo(b&j)fluoranthene	2020/05/22	ND, RDL=0.010		mg/kg	
			Benzo(k)fluoranthene	2020/05/22	ND, RDL=0.010		mg/kg	
			Benzo(g,h,i)perylene	2020/05/22	ND, RDL=0.020		mg/kg	
			Benzo(a)pyrene	2020/05/22	ND, RDL=0.010		mg/kg	
			Chrysene	2020/05/22	ND, RDL=0.010		mg/kg	
			Dibenz(a,h)anthracene	2020/05/22	ND, RDL=0.020		mg/kg	
			Fluoranthene	2020/05/22	ND, RDL=0.010		mg/kg	
			Fluorene	2020/05/22	ND, RDL=0.010		mg/kg	
			Indeno(1,2,3-cd)pyrene	2020/05/22	ND, RDL=0.020		mg/kg	
			1-Methylnaphthalene	2020/05/22	ND, RDL=0.010		mg/kg	
			2-Methylnaphthalene	2020/05/22	ND, RDL=0.010		mg/kg	
			Naphthalene	2020/05/22	ND, RDL=0.010		mg/kg	
			Phenanthrene	2020/05/22	ND, RDL=0.010		mg/kg	
			Pyrene	2020/05/22	ND, RDL=0.010		mg/kg	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Quinoline	2020/05/22	ND, RDL=0.020		mg/kg	
9857798	NK3	RPD	Acenaphthene	2020/05/22	16		%	50
			Acenaphthylene	2020/05/22	NC		%	50
			Acridine	2020/05/22	NC		%	50
			Anthracene	2020/05/22	NC		%	50
			Benzo(a)anthracene	2020/05/22	8.2		%	50
			Benzo(b&j)fluoranthene	2020/05/22	13		%	50
			Benzo(k)fluoranthene	2020/05/22	3.1		%	50
			Benzo(g,h,i)perylene	2020/05/22	12		%	50
			Benzo(a)pyrene	2020/05/22	14		%	50
			Chrysene	2020/05/22	21		%	50
			Dibenz(a,h)anthracene	2020/05/22	NC		%	50
			Fluoranthene	2020/05/22	9.8		%	50
			Fluorene	2020/05/22	10		%	50
			Indeno(1,2,3-cd)pyrene	2020/05/22	2.4		%	50
			1-Methylnaphthalene	2020/05/22	12		%	50
			2-Methylnaphthalene	2020/05/22	12		%	50
			Naphthalene	2020/05/22	15		%	50
			Phenanthrene	2020/05/22	12		%	50
			Pyrene	2020/05/22	8.5		%	50
			Quinoline	2020/05/22	NC		%	50
9859031	KKC	QC Standard	Soluble (2:1) pH	2020/05/25		101	%	98 - 102
9859031	KKC	Spiked Blank	Soluble (2:1) pH	2020/05/25		100	%	97 - 103
9859031	KKC	RPD	Soluble (2:1) pH	2020/05/25	0.12		%	20
9860165	GP4	Matrix Spike	1,4-Difluorobenzene (sur.)	2020/05/25		92	%	60 - 140
			4-Bromofluorobenzene (sur.)	2020/05/25		97	%	60 - 140
			D10-o-Xylene (sur.)	2020/05/25		107	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2020/05/25		84	%	60 - 140
			Methyl-tert-butylether (MTBE)	2020/05/25		80	%	50 - 140
			Benzene	2020/05/25		86	%	50 - 140
			Toluene	2020/05/25		93	%	50 - 140
			Ethylbenzene	2020/05/25		89	%	50 - 140
			m & p-Xylene	2020/05/25		91	%	50 - 140
			o-Xylene	2020/05/25		93	%	50 - 140
			Styrene	2020/05/25		98	%	50 - 140
9860165	GP4	Spiked Blank	1,4-Difluorobenzene (sur.)	2020/05/25		99	%	60 - 140
			4-Bromofluorobenzene (sur.)	2020/05/25		98	%	60 - 140
			D10-o-Xylene (sur.)	2020/05/25		97	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2020/05/25		92	%	60 - 140
			Methyl-tert-butylether (MTBE)	2020/05/25		80	%	60 - 130
			Benzene	2020/05/25		97	%	60 - 130
			Toluene	2020/05/25		97	%	60 - 130
			Ethylbenzene	2020/05/25		92	%	60 - 130
			m & p-Xylene	2020/05/25		94	%	60 - 130
			o-Xylene	2020/05/25		95	%	60 - 130
			Styrene	2020/05/25		95	%	60 - 130
9860165	GP4	Method Blank	1,4-Difluorobenzene (sur.)	2020/05/25		98	%	60 - 140
			4-Bromofluorobenzene (sur.)	2020/05/25		96	%	60 - 140
			D10-o-Xylene (sur.)	2020/05/25		95	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2020/05/25		88	%	60 - 140
			Methyl-tert-butylether (MTBE)	2020/05/25	ND, RDL=0.10		mg/kg	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzene	2020/05/25	ND, RDL=0.0050		mg/kg	
			Toluene	2020/05/25	ND, RDL=0.050		mg/kg	
			Ethylbenzene	2020/05/25	ND, RDL=0.010		mg/kg	
			m & p-Xylene	2020/05/25	ND, RDL=0.040		mg/kg	
			o-Xylene	2020/05/25	ND, RDL=0.040		mg/kg	
			Styrene	2020/05/25	ND, RDL=0.030		mg/kg	
9860165	GP4	RPD	Methyl-tert-butylether (MTBE)	2020/05/25	NC		%	50
			Benzene	2020/05/25	1.6		%	50
			Toluene	2020/05/25	5.4		%	50
			Ethylbenzene	2020/05/25	3.7		%	50
			m & p-Xylene	2020/05/25	0.49		%	50
			o-Xylene	2020/05/25	4.1		%	50
			Styrene	2020/05/25	0.15		%	50
9860174	ANE	Matrix Spike	Total Aluminum (Al)	2020/05/26		NC	%	75 - 125
			Total Antimony (Sb)	2020/05/26		111	%	75 - 125
			Total Arsenic (As)	2020/05/26		99	%	75 - 125
			Total Barium (Ba)	2020/05/26		NC	%	75 - 125
			Total Beryllium (Be)	2020/05/26		100	%	75 - 125
			Total Bismuth (Bi)	2020/05/26		93	%	75 - 125
			Total Cadmium (Cd)	2020/05/26		100	%	75 - 125
			Total Calcium (Ca)	2020/05/26		NC	%	75 - 125
			Total Chromium (Cr)	2020/05/26		122	%	75 - 125
			Total Cobalt (Co)	2020/05/26		93	%	75 - 125
			Total Copper (Cu)	2020/05/26		NC	%	75 - 125
			Total Iron (Fe)	2020/05/26		NC	%	75 - 125
			Total Lead (Pb)	2020/05/26		101	%	75 - 125
			Total Lithium (Li)	2020/05/26		104	%	75 - 125
			Total Magnesium (Mg)	2020/05/26		NC	%	75 - 125
			Total Manganese (Mn)	2020/05/26		NC	%	75 - 125
			Total Mercury (Hg)	2020/05/26		94	%	75 - 125
			Total Molybdenum (Mo)	2020/05/26		NC	%	75 - 125
			Total Nickel (Ni)	2020/05/26		NC	%	75 - 125
			Total Phosphorus (P)	2020/05/26		NC	%	75 - 125
			Total Potassium (K)	2020/05/26		NC	%	75 - 125
			Total Selenium (Se)	2020/05/26		107	%	75 - 125
			Total Silver (Ag)	2020/05/26		97	%	75 - 125
			Total Sodium (Na)	2020/05/26		NC	%	75 - 125
			Total Strontium (Sr)	2020/05/26		NC	%	75 - 125
			Total Thallium (Tl)	2020/05/26		90	%	75 - 125
			Total Tin (Sn)	2020/05/26		105	%	75 - 125
			Total Titanium (Ti)	2020/05/26		90	%	75 - 125
			Total Uranium (U)	2020/05/26		96	%	75 - 125
			Total Vanadium (V)	2020/05/26		NC	%	75 - 125
			Total Zinc (Zn)	2020/05/26		NC	%	75 - 125
			Total Zirconium (Zr)	2020/05/26		NC	%	75 - 125
9860174	ANE	QC Standard	Total Aluminum (Al)	2020/05/26		83	%	70 - 130
			Total Arsenic (As)	2020/05/26		111	%	70 - 130
			Total Barium (Ba)	2020/05/26		102	%	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Beryllium (Be)	2020/05/26		95	%	70 - 130
			Total Cadmium (Cd)	2020/05/26		97	%	70 - 130
			Total Calcium (Ca)	2020/05/26		101	%	70 - 130
			Total Chromium (Cr)	2020/05/26		88	%	70 - 130
			Total Cobalt (Co)	2020/05/26		92	%	70 - 130
			Total Copper (Cu)	2020/05/26		104	%	70 - 130
			Total Iron (Fe)	2020/05/26		109	%	70 - 130
			Total Lead (Pb)	2020/05/26		111	%	70 - 130
			Total Lithium (Li)	2020/05/26		83	%	70 - 130
			Total Magnesium (Mg)	2020/05/26		93	%	70 - 130
			Total Manganese (Mn)	2020/05/26		96	%	70 - 130
			Total Mercury (Hg)	2020/05/26		109	%	70 - 130
			Total Molybdenum (Mo)	2020/05/26		105	%	70 - 130
			Total Nickel (Ni)	2020/05/26		103	%	70 - 130
			Total Phosphorus (P)	2020/05/26		98	%	70 - 130
			Total Potassium (K)	2020/05/26		75	%	70 - 130
			Total Silver (Ag)	2020/05/26		128	%	70 - 130
			Total Sodium (Na)	2020/05/26		81	%	70 - 130
			Total Strontium (Sr)	2020/05/26		99	%	70 - 130
			Total Thallium (Tl)	2020/05/26		98	%	70 - 130
			Total Tin (Sn)	2020/05/26		105	%	70 - 130
			Total Uranium (U)	2020/05/26		100	%	70 - 130
			Total Vanadium (V)	2020/05/26		96	%	70 - 130
			Total Zinc (Zn)	2020/05/26		104	%	70 - 130
9860174	ANE	Spiked Blank	Total Aluminum (Al)	2020/05/26		105	%	75 - 125
			Total Antimony (Sb)	2020/05/26		128 (1)	%	75 - 125
			Total Arsenic (As)	2020/05/26		98	%	75 - 125
			Total Barium (Ba)	2020/05/26		99	%	75 - 125
			Total Beryllium (Be)	2020/05/26		96	%	75 - 125
			Total Bismuth (Bi)	2020/05/26		96	%	75 - 125
			Total Cadmium (Cd)	2020/05/26		97	%	75 - 125
			Total Calcium (Ca)	2020/05/26		107	%	75 - 125
			Total Chromium (Cr)	2020/05/26		97	%	75 - 125
			Total Cobalt (Co)	2020/05/26		95	%	75 - 125
			Total Copper (Cu)	2020/05/26		97	%	75 - 125
			Total Iron (Fe)	2020/05/26		106	%	75 - 125
			Total Lead (Pb)	2020/05/26		100	%	75 - 125
			Total Lithium (Li)	2020/05/26		95	%	75 - 125
			Total Magnesium (Mg)	2020/05/26		98	%	75 - 125
			Total Manganese (Mn)	2020/05/26		96	%	75 - 125
			Total Mercury (Hg)	2020/05/26		92	%	75 - 125
			Total Molybdenum (Mo)	2020/05/26		97	%	75 - 125
			Total Nickel (Ni)	2020/05/26		96	%	75 - 125
			Total Phosphorus (P)	2020/05/26		113	%	75 - 125
			Total Potassium (K)	2020/05/26		105	%	75 - 125
			Total Selenium (Se)	2020/05/26		106	%	75 - 125
			Total Silver (Ag)	2020/05/26		96	%	75 - 125
			Total Sodium (Na)	2020/05/26		109	%	75 - 125
			Total Strontium (Sr)	2020/05/26		99	%	75 - 125
			Total Thallium (Tl)	2020/05/26		101	%	75 - 125
			Total Tin (Sn)	2020/05/26		95	%	75 - 125
			Total Titanium (Ti)	2020/05/26		101	%	75 - 125
			Total Uranium (U)	2020/05/26		100	%	75 - 125
			Total Vanadium (V)	2020/05/26		97	%	75 - 125

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Zinc (Zn)	2020/05/26		102	%	75 - 125
			Total Zirconium (Zr)	2020/05/26		103	%	75 - 125
9860174	ANE	Method Blank	Total Aluminum (Al)	2020/05/26	ND, RDL=100		mg/kg	
			Total Antimony (Sb)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Arsenic (As)	2020/05/26	ND, RDL=0.20		mg/kg	
			Total Barium (Ba)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Beryllium (Be)	2020/05/26	ND, RDL=0.20		mg/kg	
			Total Bismuth (Bi)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Cadmium (Cd)	2020/05/26	ND, RDL=0.050		mg/kg	
			Total Calcium (Ca)	2020/05/26	ND, RDL=100		mg/kg	
			Total Chromium (Cr)	2020/05/26	ND, RDL=0.50		mg/kg	
			Total Cobalt (Co)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Copper (Cu)	2020/05/26	ND, RDL=0.50		mg/kg	
			Total Iron (Fe)	2020/05/26	ND, RDL=100		mg/kg	
			Total Lead (Pb)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Lithium (Li)	2020/05/26	ND, RDL=0.50		mg/kg	
			Total Magnesium (Mg)	2020/05/26	ND, RDL=100		mg/kg	
			Total Manganese (Mn)	2020/05/26	ND, RDL=0.20		mg/kg	
			Total Mercury (Hg)	2020/05/26	ND, RDL=0.050		mg/kg	
			Total Molybdenum (Mo)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Nickel (Ni)	2020/05/26	ND, RDL=0.50		mg/kg	
			Total Phosphorus (P)	2020/05/26	ND, RDL=10		mg/kg	
			Total Potassium (K)	2020/05/26	ND, RDL=100		mg/kg	
			Total Selenium (Se)	2020/05/26	ND, RDL=0.50		mg/kg	
			Total Silver (Ag)	2020/05/26	ND, RDL=0.050		mg/kg	
			Total Sodium (Na)	2020/05/26	ND, RDL=100		mg/kg	
			Total Strontium (Sr)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Thallium (Tl)	2020/05/26	ND, RDL=0.050		mg/kg	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Tin (Sn)	2020/05/26	ND, RDL=0.10		mg/kg	
			Total Titanium (Ti)	2020/05/26	ND, RDL=1.0		mg/kg	
			Total Uranium (U)	2020/05/26	ND, RDL=0.050		mg/kg	
			Total Vanadium (V)	2020/05/26	ND, RDL=1.0		mg/kg	
			Total Zinc (Zn)	2020/05/26	ND, RDL=1.0		mg/kg	
			Total Zirconium (Zr)	2020/05/26	ND, RDL=0.50		mg/kg	
9860174	ANE	RPD	Total Aluminum (Al)	2020/05/26	2.2		%	40
			Total Antimony (Sb)	2020/05/26	1.6		%	30
			Total Arsenic (As)	2020/05/26	1.2		%	30
			Total Barium (Ba)	2020/05/26	1.6		%	40
			Total Beryllium (Be)	2020/05/26	3.0		%	30
			Total Bismuth (Bi)	2020/05/26	2.0		%	30
			Total Cadmium (Cd)	2020/05/26	0.96		%	30
			Total Calcium (Ca)	2020/05/26	3.5		%	30
			Total Chromium (Cr)	2020/05/26	3.2		%	30
			Total Cobalt (Co)	2020/05/26	1.6		%	30
			Total Copper (Cu)	2020/05/26	0.16		%	30
			Total Iron (Fe)	2020/05/26	1.2		%	30
			Total Lead (Pb)	2020/05/26	0.19		%	40
			Total Lithium (Li)	2020/05/26	5.1		%	30
			Total Magnesium (Mg)	2020/05/26	0.91		%	30
			Total Manganese (Mn)	2020/05/26	2.1		%	30
			Total Mercury (Hg)	2020/05/26	2.4		%	40
			Total Molybdenum (Mo)	2020/05/26	19		%	40
			Total Nickel (Ni)	2020/05/26	0.48		%	30
			Total Phosphorus (P)	2020/05/26	0.81		%	30
			Total Potassium (K)	2020/05/26	0.16		%	40
			Total Selenium (Se)	2020/05/26	1.7		%	30
			Total Silver (Ag)	2020/05/26	3.5		%	40
			Total Sodium (Na)	2020/05/26	1.2		%	40
			Total Strontium (Sr)	2020/05/26	3.5		%	40
			Total Thallium (Tl)	2020/05/26	5.5		%	30
			Total Tin (Sn)	2020/05/26	4.0		%	40
			Total Titanium (Ti)	2020/05/26	13		%	40
			Total Uranium (U)	2020/05/26	7.7		%	30
			Total Vanadium (V)	2020/05/26	2.1		%	30
			Total Zinc (Zn)	2020/05/26	0.28		%	30
			Total Zirconium (Zr)	2020/05/26	4.7		%	40
9861170	MPE	Matrix Spike [XT9969-01]	Total Oil and grease	2020/05/26		98	%	65 - 135
9861170	MPE	Spiked Blank	Total Oil and grease	2020/05/26		98	%	65 - 135
9861170	MPE	Method Blank	Total Oil and grease	2020/05/26	ND, RDL=100		ug/g	
9861170	MPE	RPD [XT9969-01]	Total Oil and grease	2020/05/26	NC (2)		%	30
9862034	JAX	Spiked Blank	Leachable Initial pH of Sample	2020/05/27		100	%	97 - 103
			Leachable pH after HCl	2020/05/27		100	%	97 - 103
			Leachable Final pH of Leachate	2020/05/27		99	%	97 - 103
9862034	JAX	RPD	Leachable Initial pH of Sample	2020/05/27	1.4		%	N/A
			Leachable pH after HCl	2020/05/27	NC (3)		%	N/A

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Final pH of Leachate	2020/05/27	0.38		%	N/A
9862293	ANE	Matrix Spike [XT9969-01]	Leachable Antimony (Sb)	2020/05/27		98	%	75 - 125
			Leachable Arsenic (As)	2020/05/27		91	%	75 - 125
			Leachable Barium (Ba)	2020/05/27		NC	%	75 - 125
			Leachable Beryllium (Be)	2020/05/27		97	%	75 - 125
			Leachable Boron (B)	2020/05/27		NC	%	75 - 125
			Leachable Cadmium (Cd)	2020/05/27		96	%	75 - 125
			Leachable Chromium (Cr)	2020/05/27		95	%	75 - 125
			Leachable Cobalt (Co)	2020/05/27		95	%	75 - 125
			Leachable Copper (Cu)	2020/05/27		94	%	75 - 125
			Leachable Iron (Fe)	2020/05/27		NC	%	75 - 125
			Leachable Lead (Pb)	2020/05/27		95	%	75 - 125
			Leachable Mercury (Hg)	2020/05/27		79	%	75 - 125
			Leachable Nickel (Ni)	2020/05/27		100	%	75 - 125
			Leachable Selenium (Se)	2020/05/27		98	%	75 - 125
			Leachable Silver (Ag)	2020/05/27		96	%	75 - 125
			Leachable Thallium (Tl)	2020/05/27		95	%	75 - 125
			Leachable Uranium (U)	2020/05/27		97	%	75 - 125
			Leachable Vanadium (V)	2020/05/27		95	%	75 - 125
			Leachable Zinc (Zn)	2020/05/27		99	%	75 - 125
			Leachable Zirconium (Zr)	2020/05/27		102	%	75 - 125
9862293	ANE	Spiked Blank	Leachable Antimony (Sb)	2020/05/27		99	%	80 - 120
			Leachable Arsenic (As)	2020/05/27		89	%	80 - 120
			Leachable Barium (Ba)	2020/05/27		103	%	80 - 120
			Leachable Beryllium (Be)	2020/05/27		97	%	80 - 120
			Leachable Boron (B)	2020/05/27		109	%	80 - 120
			Leachable Cadmium (Cd)	2020/05/27		97	%	80 - 120
			Leachable Chromium (Cr)	2020/05/27		92	%	80 - 120
			Leachable Cobalt (Co)	2020/05/27		91	%	80 - 120
			Leachable Copper (Cu)	2020/05/27		98	%	80 - 120
			Leachable Iron (Fe)	2020/05/27		106	%	80 - 120
			Leachable Lead (Pb)	2020/05/27		97	%	80 - 120
			Leachable Mercury (Hg)	2020/05/27		101	%	80 - 120
			Leachable Nickel (Ni)	2020/05/27		90	%	80 - 120
			Leachable Selenium (Se)	2020/05/27		100	%	80 - 120
			Leachable Silver (Ag)	2020/05/27		96	%	80 - 120
			Leachable Thallium (Tl)	2020/05/27		95	%	80 - 120
			Leachable Uranium (U)	2020/05/27		95	%	80 - 120
			Leachable Vanadium (V)	2020/05/27		90	%	80 - 120
			Leachable Zinc (Zn)	2020/05/27		98	%	80 - 120
			Leachable Zirconium (Zr)	2020/05/27		101	%	80 - 120
9862293	ANE	Method Blank	Leachable Antimony (Sb)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Arsenic (As)	2020/05/27	ND, RDL=0.50		mg/L	
			Leachable Barium (Ba)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Beryllium (Be)	2020/05/27	ND, RDL=0.50		mg/L	
			Leachable Boron (B)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Cadmium (Cd)	2020/05/27	ND, RDL=0.10		mg/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Chromium (Cr)	2020/05/27	ND, RDL=0.50		mg/L	
			Leachable Cobalt (Co)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Copper (Cu)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Iron (Fe)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Lead (Pb)	2020/05/27	ND, RDL=0.50		mg/L	
			Leachable Mercury (Hg)	2020/05/27	ND, RDL=0.020		mg/L	
			Leachable Nickel (Ni)	2020/05/27	ND, RDL=0.50		mg/L	
			Leachable Selenium (Se)	2020/05/27	ND, RDL=0.10		mg/L	
			Leachable Silver (Ag)	2020/05/27	ND, RDL=0.50		mg/L	
			Leachable Thallium (Tl)	2020/05/27	ND, RDL=0.50		mg/L	
			Leachable Uranium (U)	2020/05/27	ND, RDL=0.20		mg/L	
			Leachable Vanadium (V)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Zinc (Zn)	2020/05/27	ND, RDL=1.0		mg/L	
			Leachable Zirconium (Zr)	2020/05/27	ND, RDL=1.0		mg/L	
9862293	ANE	RPD [XT9969-01]	Leachable Antimony (Sb)	2020/05/27	NC		%	35
			Leachable Arsenic (As)	2020/05/27	NC		%	35
			Leachable Barium (Ba)	2020/05/27	3.3		%	35
			Leachable Beryllium (Be)	2020/05/27	NC		%	35
			Leachable Boron (B)	2020/05/27	NC		%	35
			Leachable Cadmium (Cd)	2020/05/27	NC		%	35
			Leachable Chromium (Cr)	2020/05/27	NC		%	35
			Leachable Cobalt (Co)	2020/05/27	NC		%	35
			Leachable Copper (Cu)	2020/05/27	NC		%	35
			Leachable Iron (Fe)	2020/05/27	4.9		%	35
			Leachable Lead (Pb)	2020/05/27	NC		%	35
			Leachable Mercury (Hg)	2020/05/27	NC		%	35
			Leachable Nickel (Ni)	2020/05/27	0.41		%	35
			Leachable Selenium (Se)	2020/05/27	NC		%	35
			Leachable Silver (Ag)	2020/05/27	NC		%	35
			Leachable Thallium (Tl)	2020/05/27	NC		%	35
			Leachable Uranium (U)	2020/05/27	NC		%	35
			Leachable Vanadium (V)	2020/05/27	NC		%	35
			Leachable Zinc (Zn)	2020/05/27	NC		%	35

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Zirconium (Zr)	2020/05/27	NC		%	35

N/A = Not Applicable

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

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

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

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

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

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

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

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

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

(2) High moisture content

(3) Sample excceds calibration range.

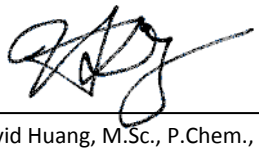
Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C033147
Report Date: 2020/05/28

LORAX ENVIRONMENTAL SERVICES LTD.
Your P.O. #: 34974
Sampler Initials: LB

VALIDATION SIGNATURE PAGE

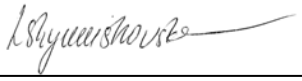
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



David Huang, M.Sc., P.Chem., QP, Scientific Services Manager



Dennis Ngondu, B.Sc., P.Chem., QP, Supervisor, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics



Harry (Peng) Liang, Senior Analyst



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

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For Service Group specific validation please refer to the Validation Signature Page.

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Custody Tracking Form

643

W24538

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain Of Custody). Please ensure your form has a barcode or a BV Labs eCOC confirmation number in the top right hand side. This number links your electronic submission to your samples.

First Sample: MWTF-SLP
Last Sample: MWTF-SLP
Sample Count: 1

Relinquished By				Received By			
Lukas Bennett		Date	2020/05/15			Date	2020/05/15
		Time (24 HR)	12:00			Time (24 HR)	13:00
		Date		SARA BISCHOFF		Date	2020/05/16
		Time (24 HR)				Time (24 HR)	06:00
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvlabs.com

Submission Triage Information

Sampled By: LB

# of Coolers/Pkgs: 1

Rush ☐ Immediate Test ☐ Food Residue ☐

Micro ☐ Food Chemistry ☐

*** LAB USE ONLY ***

Received At: FSJ

Comments:

Labeled By

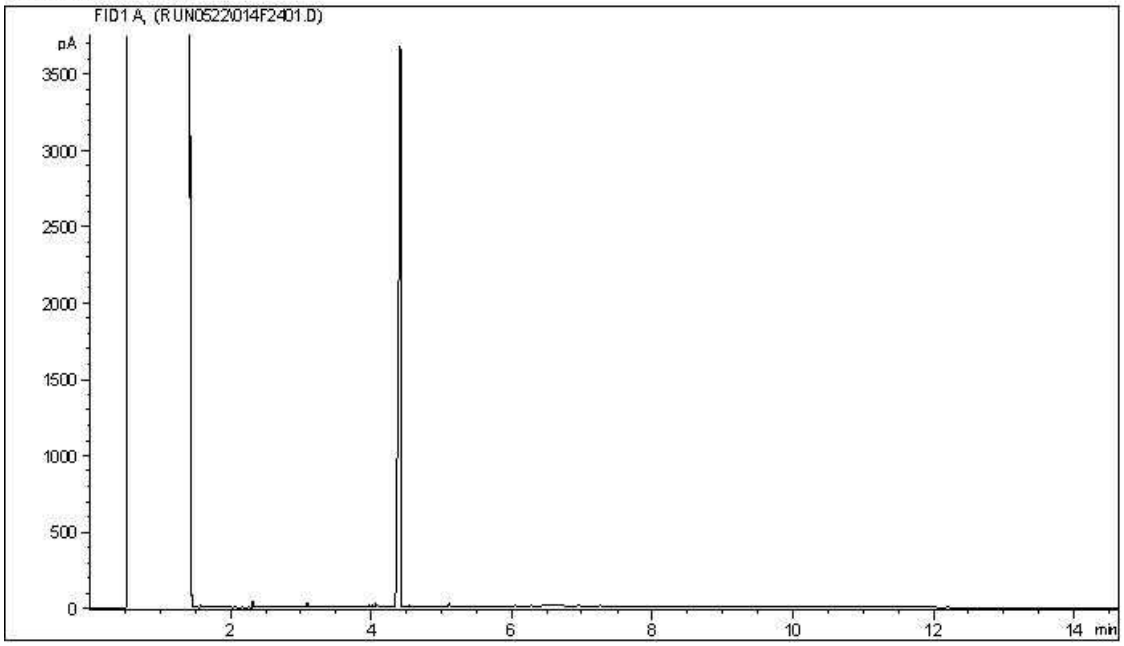
Verified By

15-May-20 13:00
Debbie Nordbruget
C033147
SBZ INS-0085

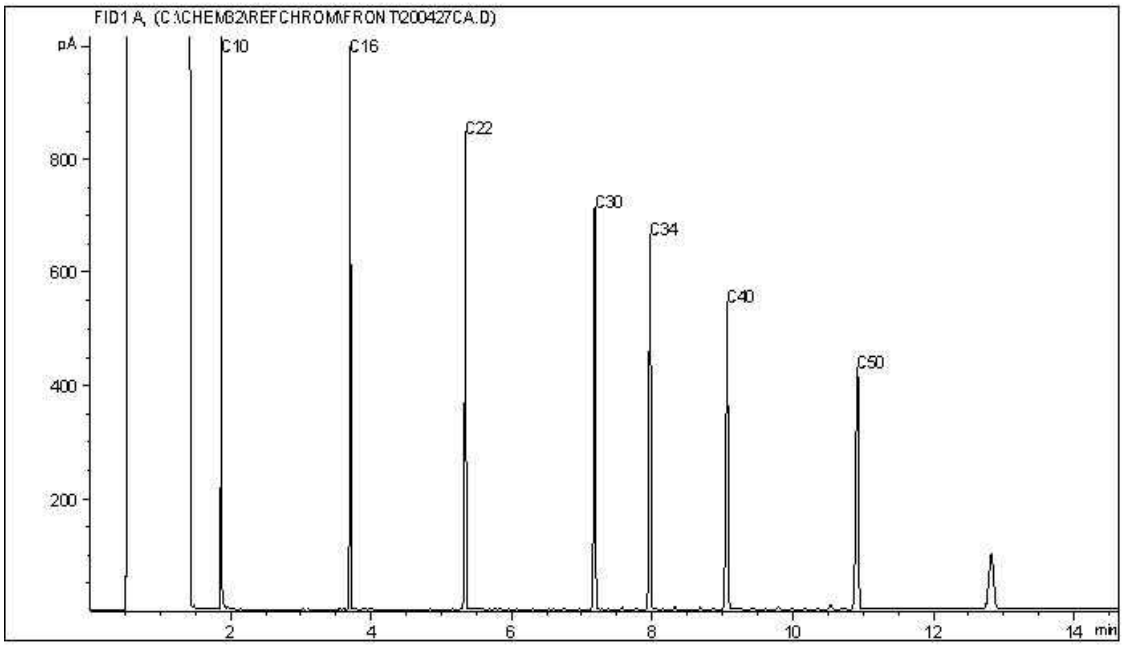
Custody Seal		Cooling	Temperature °C		
Present (Y/N)	Intact (Y/N)	Cooling Media (Y/N)	1	2	3
NO		Yes	12	11	11
Y	Y	Y	0	2	2

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC7



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

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

BV Labs - Partial/Rush Results

Your P.O. #: 21663
Your Project #: SCD 18 01
Site Location: Site C Dam
PO # 21663
Project# SCD-18-01
Your C.O.C. #: G150901

Attention: Robert Taylor

Ensero Solutions - Fort St John
Site C Dam
Peace River E.
BC
Canada

Report Date: 2021/01/18
Report #: R2977583
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BV LABS JOB #: C102068
Received: 2021/01/12, 14:00

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Cresols Calculation (1)	1	N/A	2021/01/18		Auto Calc
BC Hydrocarbons in Soil by GC/FID (1)	1	2021/01/13	2021/01/14	CAL SOP-00239	BCMOE EPH S 12/16
EPH less PAH in Soil By GC/FID (1)	1	N/A	2021/01/15		Auto Calc
Glycols in Soil by GC/FID (1)	1	2021/01/15	2021/01/15	CAL SOP-00093	BCMOE Glycols 09/17
Elements by ICPMS (total) (1)	1	2021/01/18	2021/01/18	CAL SOP-00265	EPA 6020 m
ICPMS Metals on TCLP Leachate (1, 2)	1	2021/01/15	2021/01/16	AB SOP-00043	EPA 6020b R2 m
Moisture (1)	1	N/A	2021/01/14	AB SOP-00002	CCME PHC-CWS m
PAH in Soil by GC/MS (1)	1	2021/01/13	2021/01/14	AB SOP-00003 AB SOP-00036	EPA 3540C/8270E m
Total LMW, HMW, Total PAH Calc (1)	1	N/A	2021/01/15		Auto Calc
TCLP pH Measurements (1)	1	2021/01/15	2021/01/16	AB SOP-00006	SM 23 4500 H+B m
pH (2:1 DI Water Extract) (1)	1	2021/01/15	2021/01/15	AB SOP-00033 / AB SOP-00006	SM 23 4500 H+B m
Phenols (semivolatile) (1)	1	2021/01/15	2021/01/16	CAL SOP-00164	EPA 8270e m
Total Carbon, Nitrogen & Sulphur in Soil (1)	1	N/A	2021/01/15	CAL SOP-00243	LECO 203-821-498 m
Volatile HC-BTEX (1)	1	2021/01/13	2021/01/15		Auto Calc
BTEX/MTBE/Styrene/VPH in Soil GC/MS/FID (1)	1	N/A	2021/01/14	CAL SOP-00240	BC MELP VH 2014

Remarks:

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

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

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

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BV Labs - Partial/Rush Results

Your P.O. #: 21663
Your Project #: SCD 18 01
Site Location: Site C Dam
PO # 21663
Project# SCD-18-01
Your C.O.C. #: G150901

Attention: Robert Taylor

Ensero Solutions - Fort St John
Site C Dam
Peace River E.
BC
Canada

Report Date: 2021/01/18
Report #: R2977583
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BV LABS JOB #: C102068
Received: 2021/01/12, 14:00

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by BV Labs Calgary Environmental
(2) Samples were extracted as per EPA 1311 unless otherwise noted in the report.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276
==========
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Ensero Solutions - Fort St John
Client Project #: SCD 18 01
Site Location: Site C Dam
Your P.O. #: 21663
Sampler Initials: GW

BV Labs - Partial/Rush Results

BC LEPH/HEPH PETROLEUM HYDROCARBONS (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Physical Properties				
Moisture	%	55	0.30	A132963
Polycyclic Aromatics				
Acenaphthene	mg/kg	<0.010 (1)	0.010	A132322
Acenaphthylene	mg/kg	<0.010 (1)	0.010	A132322
Anthracene	mg/kg	<0.0080 (1)	0.0080	A132322
Benzo(a)anthracene	mg/kg	<0.020 (1)	0.020	A132322
Benzo(b&j)fluoranthene	mg/kg	<0.020 (1)	0.020	A132322
Benzo(k)fluoranthene	mg/kg	<0.020 (1)	0.020	A132322
Benzo(g,h,i)perylene	mg/kg	<0.040 (1)	0.040	A132322
Benzo(a)pyrene	mg/kg	<0.020 (1)	0.020	A132322
Chrysene	mg/kg	<0.020 (1)	0.020	A132322
Dibenz(a,h)anthracene	mg/kg	<0.040 (1)	0.040	A132322
Fluoranthene	mg/kg	<0.020 (1)	0.020	A132322
Fluorene	mg/kg	<0.020 (1)	0.020	A132322
Indeno(1,2,3-cd)pyrene	mg/kg	<0.040 (1)	0.040	A132322
1-Methylnaphthalene	mg/kg	<0.020 (1)	0.020	A132322
2-Methylnaphthalene	mg/kg	0.024 (1)	0.020	A132322
Naphthalene	mg/kg	<0.020 (1)	0.020	A132322
Phenanthrene	mg/kg	<0.020 (1)	0.020	A132322
Pyrene	mg/kg	<0.020 (1)	0.020	A132322
Low Molecular Weight PAH`s	mg/kg	<0.10	0.10	A132200
High Molecular Weight PAH`s	mg/kg	<0.040	0.040	A132200
Total PAH	mg/kg	<0.10	0.10	A132200
Ext. Pet. Hydrocarbon				
EPH (C10-C19)	mg/kg	<220 (1)	220	A132316
EPH (C19-C32)	mg/kg	<220 (1)	220	A132316
LEPH (C10-C19 less PAH)	mg/kg	<220	220	A132199
HEPH (C19-C32 less PAH)	mg/kg	<220	220	A132199

RDL = Reportable Detection Limit

(1) Detection limits raised due to high moisture content, sample contains => 50% moisture.

BV Labs Job #: C102068
Report Date: 2021/01/18

Ensero Solutions - Fort St John
Client Project #: SCD 18 01
Site Location: Site C Dam
Your P.O. #: 21663
Sampler Initials: GW

BV Labs - Partial/Rush Results

BC LEPH/HEPH PETROLEUM HYDROCARBONS (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	77		A132316
D10-ANTHRACENE (sur.)	%	95		A132322
D8-ACENAPHTHYLENE (sur.)	%	95		A132322
D8-NAPHTHALENE (sur.)	%	91		A132322
D9-Acridine (sur.)	%	66		A132322
TERPHENYL-D14 (sur.)	%	100		A132322
RDL = Reportable Detection Limit				

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BV Labs Job #: C102068
Report Date: 2021/01/18

Ensero Solutions - Fort St John
Client Project #: SCD 18 01
Site Location: Site C Dam
Your P.O. #: 21663
Sampler Initials: GW

BV Labs - Partial/Rush Results

BC BTEX/VPH IN SOIL (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Volatiles				
Xylenes (Total)	mg/kg	<0.080	0.080	A132201
VH C6-C10	mg/kg	<28	28	A132201
VPH (VH6 to 10 - BTEX)	mg/kg	<28	28	A132201
Field Preserved Volatiles				
Methyl-tert-butylether (MTBE)	mg/kg	<0.33 (1)	0.33	A132286
Benzene	mg/kg	<0.016 (1)	0.016	A132286
Toluene	mg/kg	<0.16 (1)	0.16	A132286
Ethylbenzene	mg/kg	<0.033 (1)	0.033	A132286
m & p-Xylene	mg/kg	<0.068 (2)	0.068	A132286
o-Xylene	mg/kg	<0.042 (2)	0.042	A132286
Styrene	mg/kg	<0.098 (1)	0.098	A132286
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	86		A132286
4-Bromofluorobenzene (sur.)	%	89		A132286
D10-o-Xylene (sur.)	%	111		A132286
D4-1,2-Dichloroethane (sur.)	%	89		A132286

RDL = Reportable Detection Limit

(1) Detection limits raised due to high moisture content, sample contains >= 50% moisture. Detection limits raised based on sample weight used for analysis.

(2) Detection limit reported based on MDL, high moisture and sample weight used for analysis.

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BV Labs Job #: C102068
Report Date: 2021/01/18

Ensero Solutions - Fort St John
Client Project #: SCD 18 01
Site Location: Site C Dam
Your P.O. #: 21663
Sampler Initials: GW

BV Labs - Partial/Rush Results

RESULTS OF CHEMICAL ANALYSES OF SOIL

BV Labs ID		ZD5649	
Sampling Date		2021/01/12 12:45	
COC Number		G150901	
	UNITS	**REACTOR 1 SLUDGE**	**QC Batch**
Misc. Inorganics			
Leachable Initial pH of Sample	pH	11.5	A134494
Leachable pH after HCl	pH	6.30	A134494
Leachable Final pH of Leachate	pH	6.77	A134494

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Ensero Solutions - Fort St John
Client Project #: SCD 18 01
Site Location: Site C Dam
Your P.O. #: 21663
Sampler Initials: GW

BV Labs - Partial/Rush Results

GLYCOLS BY GC-FID (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	**REACTOR 1 SLUDGE**	**RDL**	**QC Batch**
Glycols				
Extractable (Water) Ethylene Glycol	mg/kg	<22 (1)	22	A133827
Extractable (Water) Diethylene Glycol	mg/kg	<22 (1)	22	A133827
Extractable (Water) Triethylene Glycol	mg/kg	<22 (1)	22	A133827
Extractable (Water) Propylene Glycol	mg/kg	<22 (1)	22	A133827
Surrogate Recovery (%)				
Extractable (Water) Methyl Sulfone (sur.)	%	108		A133827

RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content, sample contains => 50% moisture.

Ensero Solutions - Fort St John
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BV Labs - Partial/Rush Results

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Phenols				
Cresols	mg/kg	<0.015	0.015	A132774
Phenol	mg/kg	<0.0021 (1)	0.0021	A133838
3 & 4-chlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2,3,5,6-tetrachlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2,3,4,6-tetrachlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2,4,5-trichlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2,4,6-trichlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2,3,5-trichlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2,3,4-trichlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2,4-dichlorophenol	mg/kg	<0.0021 (2)	0.0021	A133838
2,4-dimethylphenol	mg/kg	<0.011 (1)	0.011	A133838
2,4-dinitrophenol	mg/kg	<0.11 (2)	0.11	A133838
2,6-dichlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2-chlorophenol	mg/kg	<0.011 (2)	0.011	A133838
2-methylphenol	mg/kg	<0.011 (1)	0.011	A133838
2-nitrophenol	mg/kg	<0.11 (2)	0.11	A133838
3 & 4-methylphenol	mg/kg	<0.011 (1)	0.011	A133838
4,6-dinitro-2-methylphenol	mg/kg	<0.11 (2)	0.11	A133838
4-chloro-3-methylphenol	mg/kg	<0.011 (2)	0.011	A133838
4-nitrophenol	mg/kg	<0.11 (2)	0.11	A133838
Pentachlorophenol	mg/kg	<0.011 (2)	0.011	A133838
Surrogate Recovery (%)				
2,4,6-TRIBROMOPHENOL (sur.)	%	2.1 (3)		A133838
2,4-DIBROMOPHENOL (sur.)	%	7.5 (3)		A133838

RDL = Reportable Detection Limit

(1) Detection limits raised due to high moisture content, sample contains => 50% moisture.

(2) Detection limits raised due to high moisture content, sample contains => 50% moisture. Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results.

(3) Surrogate recovery below acceptance criteria due to matrix interference. Reanalysis yields similar results.

Ensero Solutions - Fort St John
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BV Labs - Partial/Rush Results

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Elements				
Leachable Antimony (Sb)	mg/L	<1.0	1.0	A134812
Leachable Arsenic (As)	mg/L	<0.50	0.50	A134812
Leachable Barium (Ba)	mg/L	<1.0	1.0	A134812
Leachable Beryllium (Be)	mg/L	<0.50	0.50	A134812
Leachable Boron (B)	mg/L	<1.0	1.0	A134812
Leachable Cadmium (Cd)	mg/L	<0.10	0.10	A134812
Leachable Chromium (Cr)	mg/L	<0.50	0.50	A134812
Leachable Cobalt (Co)	mg/L	<1.0	1.0	A134812
Leachable Copper (Cu)	mg/L	<1.0	1.0	A134812
Leachable Iron (Fe)	mg/L	1.2	1.0	A134812
Leachable Lead (Pb)	mg/L	<0.50	0.50	A134812
Leachable Mercury (Hg)	mg/L	<0.020	0.020	A134812
Leachable Nickel (Ni)	mg/L	<0.50	0.50	A134812
Leachable Selenium (Se)	mg/L	<0.10	0.10	A134812
Leachable Silver (Ag)	mg/L	<0.50	0.50	A134812
Leachable Thallium (Tl)	mg/L	<0.50	0.50	A134812
Leachable Uranium (U)	mg/L	<0.20	0.20	A134812
Leachable Vanadium (V)	mg/L	<1.0	1.0	A134812
Leachable Zinc (Zn)	mg/L	<1.0	1.0	A134812
Leachable Zirconium (Zr)	mg/L	<1.0	1.0	A134812
RDL = Reportable Detection Limit				

Ensero Solutions - Fort St John
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BV Labs - Partial/Rush Results

MISCELLANEOUS (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Misc. Inorganics				
Total Carbon	%	9.7	0.05	A133945
Total Sulphur (S)	%	0.31	0.06	A133945
RDL = Reportable Detection Limit				

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Ensero Solutions - Fort St John
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Your P.O. #: 21663
Sampler Initials: GW

BV Labs - Partial/Rush Results

CSR/CCME METALS IN SOIL WITH HG (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Physical Properties				
Soluble (2:1) pH	pH	11.6	N/A	A134318
Total Metals by ICPMS				
Total Aluminum (Al)	mg/kg	4400	200	A135315
Total Antimony (Sb)	mg/kg	0.29	0.20	A135315
Total Arsenic (As)	mg/kg	1.67	0.40	A135315
Total Barium (Ba)	mg/kg	150	0.20	A135315
Total Beryllium (Be)	mg/kg	<0.40	0.40	A135315
Total Bismuth (Bi)	mg/kg	<0.20	0.20	A135315
Total Boron (B)	mg/kg	5.0	2.0	A135315
Total Cadmium (Cd)	mg/kg	<0.10	0.10	A135315
Total Calcium (Ca)	mg/kg	415000	200	A135315
Total Chromium (Cr)	mg/kg	1.9	1.0	A135315
Total Cobalt (Co)	mg/kg	5.78	0.20	A135315
Total Copper (Cu)	mg/kg	4.2	1.0	A135315
Total Iron (Fe)	mg/kg	2530	200	A135315
Total Lead (Pb)	mg/kg	0.96	0.20	A135315
Total Lithium (Li)	mg/kg	2.7	1.0	A135315
Total Magnesium (Mg)	mg/kg	7400	200	A135315
Total Manganese (Mn)	mg/kg	174	0.40	A135315
Total Mercury (Hg)	mg/kg	<0.10	0.10	A135315
Total Molybdenum (Mo)	mg/kg	0.27	0.20	A135315
Total Nickel (Ni)	mg/kg	18.6	1.0	A135315
Total Phosphorus (P)	mg/kg	81	20	A135315
Total Potassium (K)	mg/kg	215	200	A135315
Total Selenium (Se)	mg/kg	<1.0	1.0	A135315
Total Silver (Ag)	mg/kg	<0.10	0.10	A135315
Total Sodium (Na)	mg/kg	1210	200	A135315
Total Strontium (Sr)	mg/kg	1010	0.20	A135315
Total Thallium (Tl)	mg/kg	<0.10	0.10	A135315

RDL = Reportable Detection Limit
N/A = Not Applicable

BV Labs Job #: C102068
Report Date: 2021/01/18

Ensero Solutions - Fort St John
Client Project #: SCD 18 01
Site Location: Site C Dam
Your P.O. #: 21663
Sampler Initials: GW

BV Labs - Partial/Rush Results

CSR/CCME METALS IN SOIL WITH HG (SOIL)

BV Labs ID		ZD5649		
Sampling Date		2021/01/12 12:45		
COC Number		G150901		
	UNITS	REACTOR 1 SLUDGE	RDL	QC Batch
Total Tin (Sn)	mg/kg	1.06	0.20	A135315
Total Titanium (Ti)	mg/kg	30.7	2.0	A135315
Total Tungsten (W)	mg/kg	<1.0	1.0	A135315
Total Uranium (U)	mg/kg	1.70	0.10	A135315
Total Vanadium (V)	mg/kg	18.7	2.0	A135315
Total Zinc (Zn)	mg/kg	20.2	2.0	A135315
Total Zirconium (Zr)	mg/kg	1.9	1.0	A135315
RDL = Reportable Detection Limit				

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BV Labs - Partial/Rush Results

GENERAL COMMENTS

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

Package 1	7.3°C

CSR/CCME METALS IN SOIL WITH HG (SOIL) Comments

Sample ZD5649 [REACTOR 1 SLUDGE] Elements by ICPMS (total): Detection limits raised due to sample matrix.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A132286	1,4-Difluorobenzene (sur.)	2021/01/13	94	60 - 140	94	60 - 140	93	%				
A132286	4-Bromofluorobenzene (sur.)	2021/01/13	93	60 - 140	98	60 - 140	94	%				
A132286	D10-o-Xylene (sur.)	2021/01/13	111	60 - 140	99	60 - 140	99	%				
A132286	D4-1,2-Dichloroethane (sur.)	2021/01/13	92	60 - 140	92	60 - 140	89	%				
A132316	O-TERPHENYL (sur.)	2021/01/13	91	60 - 140	92	60 - 140	81	%				
A132322	D10-ANTHRACENE (sur.)	2021/01/13	87	50 - 140	110	50 - 140	93	%				
A132322	D8-ACENAPHTHYLENE (sur.)	2021/01/13	89	50 - 140	112	50 - 140	94	%				
A132322	D8-NAPHTHALENE (sur.)	2021/01/13	85	50 - 140	107	50 - 140	86	%				
A132322	D9-Acridine (sur.)	2021/01/13	66	50 - 140	87	50 - 140	70	%				
A132322	TERPHENYL-D14 (sur.)	2021/01/13	85	50 - 140	110	50 - 140	95	%				
A133827	Extractable (Water) Methyl Sulfone (sur.)	2021/01/15	100	50 - 140	99	50 - 140	103	%				
A133838	2,4,6-TRIBROMOPHENOL (sur.)	2021/01/16	1.5 (1)	50 - 140	93	50 - 140	94	%				
A133838	2,4-DIBROMOPHENOL (sur.)	2021/01/16	4.4 (1)	50 - 140	91	50 - 140	92	%				
A132286	Benzene	2021/01/13	90	50 - 140	93	60 - 130	<0.0050	mg/kg	NC	50		
A132286	Ethylbenzene	2021/01/13	93	50 - 140	94	60 - 130	<0.010	mg/kg	NC	50		
A132286	m & p-Xylene	2021/01/13	94	50 - 140	95	60 - 130	<0.040	mg/kg	NC	50		
A132286	Methyl-tert-butylether (MTBE)	2021/01/13	84	50 - 140	92	60 - 130	<0.10	mg/kg	NC	50		
A132286	o-Xylene	2021/01/13	95	50 - 140	95	60 - 130	<0.040	mg/kg	NC	50		
A132286	Styrene	2021/01/13	97	50 - 140	96	60 - 130	<0.030	mg/kg	NC	50		
A132286	Toluene	2021/01/13	92	50 - 140	95	60 - 130	<0.050	mg/kg	NC	50		
A132316	EPH (C10-C19)	2021/01/13	99	60 - 140	102	70 - 130	<100	mg/kg	NC	50		
A132316	EPH (C19-C32)	2021/01/13	102	60 - 140	104	70 - 130	<100	mg/kg	NC	50		
A132322	1-Methylnaphthalene	2021/01/13	87	50 - 140	107	50 - 140	<0.010	mg/kg				
A132322	2-Methylnaphthalene	2021/01/13	86	50 - 140	104	50 - 140	<0.010	mg/kg	NC	50		
A132322	Acenaphthene	2021/01/13	90	50 - 140	107	50 - 140	<0.0050	mg/kg	NC	50		
A132322	Acenaphthylene	2021/01/13	83	50 - 140	103	50 - 140	<0.0050	mg/kg	NC	50		
A132322	Anthracene	2021/01/13	81	50 - 140	103	50 - 140	<0.0040	mg/kg	NC	50		
A132322	Benzo(a)anthracene	2021/01/13	90	50 - 140	117	50 - 140	<0.010	mg/kg	23	50		
A132322	Benzo(a)pyrene	2021/01/13	78	50 - 140	107	50 - 140	<0.010	mg/kg	NC	50		
A132322	Benzo(b&j)fluoranthene	2021/01/13	77	50 - 140	103	50 - 140	<0.010	mg/kg	13	50		
A132322	Benzo(g,h,i)perylene	2021/01/13	79	50 - 140	115	50 - 140	<0.020	mg/kg	4.8	50		

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BV Labs - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A132322	Benzo(k)fluoranthene	2021/01/13	84	50 - 140	110	50 - 140	<0.010	mg/kg	NC	50		
A132322	Chrysene	2021/01/13	86	50 - 140	110	50 - 140	<0.010	mg/kg	6.5	50		
A132322	Dibenz(a,h)anthracene	2021/01/13	90	50 - 140	124	50 - 140	<0.020	mg/kg	NC	50		
A132322	Fluoranthene	2021/01/13	96	50 - 140	123	50 - 140	<0.010	mg/kg	18	50		
A132322	Fluorene	2021/01/13	94	50 - 140	118	50 - 140	<0.010	mg/kg	NC	50		
A132322	Indeno(1,2,3-cd)pyrene	2021/01/13	91	50 - 140	124	50 - 140	<0.020	mg/kg	NC	50		
A132322	Naphthalene	2021/01/13	82	50 - 140	100	50 - 140	<0.010	mg/kg	NC	50		
A132322	Phenanthrene	2021/01/13	89	50 - 140	113	50 - 140	<0.010	mg/kg	19	50		
A132322	Pyrene	2021/01/13	95	50 - 140	116	50 - 140	<0.010	mg/kg	15	50		
A132963	Moisture	2021/01/14					<0.30	%	0.72	20		
A133827	Extractable (Water) Diethylene Glycol	2021/01/15	87	60 - 140	96	60 - 140	<10	mg/kg	NC	50		
A133827	Extractable (Water) Ethylene Glycol	2021/01/15	75	60 - 140	84	60 - 140	<10	mg/kg	NC	50		
A133827	Extractable (Water) Propylene Glycol	2021/01/15	88	60 - 140	90	60 - 140	<10	mg/kg	NC	50		
A133827	Extractable (Water) Triethylene Glycol	2021/01/15	83	60 - 140	88	60 - 140	<10	mg/kg	NC	50		
A133838	2,3,4,6-tetrachlorophenol	2021/01/16	0.51 (1)	50 - 140	105	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2,3,4-trichlorophenol	2021/01/16	0.62 (1)	50 - 140	92	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2,3,5,6-tetrachlorophenol	2021/01/16	0.43 (1)	50 - 140	103	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2,3,5-trichlorophenol	2021/01/16	0.61 (1)	50 - 140	94	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2,4,5-trichlorophenol	2021/01/16	0.71 (1)	50 - 140	92	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2,4,6-trichlorophenol	2021/01/16	0.76 (1)	50 - 140	102	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2,4-dichlorophenol	2021/01/16	3.6 (1)	50 - 140	94	50 - 140	<0.0010	mg/kg	NC	50		
A133838	2,4-dimethylphenol	2021/01/16	87	50 - 140	91	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2,4-dinitrophenol	2021/01/16	18 (1)	30 - 130	85	30 - 130	<0.050	mg/kg	NC	50		
A133838	2,6-dichlorophenol	2021/01/16	0.88 (1)	50 - 140	97	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2-chlorophenol	2021/01/16	10 (1)	50 - 140	90	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2-methylphenol	2021/01/16	76	50 - 140	88	50 - 140	<0.0050	mg/kg	NC	50		
A133838	2-nitrophenol	2021/01/16	3.1 (1)	50 - 140	87	50 - 140	<0.050	mg/kg	NC	50		
A133838	3 & 4-chlorophenol	2021/01/16	23 (1)	50 - 140	101	50 - 140	<0.0050	mg/kg	NC	50		
A133838	3 & 4-methylphenol	2021/01/16	67	50 - 140	92	50 - 140	<0.0050	mg/kg	NC	50		
A133838	4,6-dinitro-2-methylphenol	2021/01/16	16 (1)	30 - 130	82	30 - 130	<0.050	mg/kg	NC	50		
A133838	4-chloro-3-methylphenol	2021/01/16	49 (1)	50 - 140	92	50 - 140	<0.0050	mg/kg	NC	50		

BV Labs - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

BV Labs - Partial/Rush Results

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A133838	4-nitrophenol	2021/01/16	1.9 (1)	50 - 140	81	50 - 140	<0.050	mg/kg	NC	50		
A133838	Pentachlorophenol	2021/01/16	0.25 (1)	50 - 140	88	50 - 140	<0.0050	mg/kg	NC	50		
A133838	Phenol	2021/01/16	33	30 - 130	92	30 - 130	<0.0010	mg/kg	NC	50		
A133945	Total Carbon	2021/01/15			101	80 - 120	<0.05	%	5.3	30	101	75 - 125
A133945	Total Sulphur (S)	2021/01/15			97	80 - 120	<0.06	%	12	30	105	75 - 125
A134318	Soluble (2:1) pH	2021/01/15			99	97 - 103					99	98 - 102
A134494	Leachable Final pH of Leachate	2021/01/16			100	97 - 103			1.2	N/A		
A134494	Leachable Initial pH of Sample	2021/01/16			100	97 - 103			1.4	N/A		
A134494	Leachable pH after HCl	2021/01/16			99	97 - 103			1.5	N/A		
A134812	Leachable Antimony (Sb)	2021/01/16	96	75 - 125	96	80 - 120	<1.0	mg/L	NC	35		
A134812	Leachable Arsenic (As)	2021/01/16	98	75 - 125	99	80 - 120	<0.50	mg/L	NC	35		
A134812	Leachable Barium (Ba)	2021/01/16	102	75 - 125	107	80 - 120	<1.0	mg/L	NC	35		
A134812	Leachable Beryllium (Be)	2021/01/16	98	75 - 125	101	80 - 120	<0.50	mg/L	NC	35		
A134812	Leachable Boron (B)	2021/01/16	93	75 - 125	96	80 - 120	<1.0	mg/L	NC	35		
A134812	Leachable Cadmium (Cd)	2021/01/16	102	75 - 125	102	80 - 120	<0.10	mg/L	NC	35		
A134812	Leachable Chromium (Cr)	2021/01/16	98	75 - 125	96	80 - 120	<0.50	mg/L	NC	35		
A134812	Leachable Cobalt (Co)	2021/01/16	96	75 - 125	97	80 - 120	<1.0	mg/L	NC	35		
A134812	Leachable Copper (Cu)	2021/01/16	94	75 - 125	98	80 - 120	<1.0	mg/L	NC	35		
A134812	Leachable Iron (Fe)	2021/01/16	NC	75 - 125	101	80 - 120	<1.0	mg/L	1.9	35		
A134812	Leachable Lead (Pb)	2021/01/16	98	75 - 125	101	80 - 120	<0.50	mg/L	NC	35		
A134812	Leachable Mercury (Hg)	2021/01/16	107	75 - 125	106	80 - 120	<0.020	mg/L	NC	35		
A134812	Leachable Nickel (Ni)	2021/01/16	97	75 - 125	97	80 - 120	<0.50	mg/L	NC	35		
A134812	Leachable Selenium (Se)	2021/01/16	100	75 - 125	100	80 - 120	<0.10	mg/L	NC	35		
A134812	Leachable Silver (Ag)	2021/01/16	101	75 - 125	100	80 - 120	<0.50	mg/L	NC	35		
A134812	Leachable Thallium (Tl)	2021/01/16	99	75 - 125	100	80 - 120	<0.50	mg/L	NC	35		
A134812	Leachable Uranium (U)	2021/01/16	102	75 - 125	99	80 - 120	<0.20	mg/L	NC	35		
A134812	Leachable Vanadium (V)	2021/01/16	101	75 - 125	98	80 - 120	<1.0	mg/L	NC	35		
A134812	Leachable Zinc (Zn)	2021/01/16	96	75 - 125	101	80 - 120	<1.0	mg/L	NC	35		
A134812	Leachable Zirconium (Zr)	2021/01/16	102	75 - 125	98	80 - 120	<1.0	mg/L	NC	35		
A135315	Total Aluminum (Al)	2021/01/18	NC	75 - 125	99	75 - 125	<100	mg/kg	5.0	40	92	70 - 130
A135315	Total Antimony (Sb)	2021/01/18	87	75 - 125	90	75 - 125	<0.10	mg/kg	25	30	98	70 - 130

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A135315	Total Arsenic (As)	2021/01/18	93	75 - 125	98	75 - 125	<0.20	mg/kg	4.3	30	99	70 - 130
A135315	Total Barium (Ba)	2021/01/18	NC	75 - 125	100	75 - 125	<0.10	mg/kg	3.2	40	95	70 - 130
A135315	Total Beryllium (Be)	2021/01/18	96	75 - 125	95	75 - 125	<0.20	mg/kg	NC	30	87	70 - 130
A135315	Total Bismuth (Bi)	2021/01/18	92	75 - 125	95	75 - 125	<0.10	mg/kg	NC	30		
A135315	Total Boron (B)	2021/01/18	90	75 - 125	86	75 - 125	<1.0	mg/kg	NC	30		
A135315	Total Cadmium (Cd)	2021/01/18	98	75 - 125	96	75 - 125	<0.050	mg/kg	NC	30	102	70 - 130
A135315	Total Calcium (Ca)	2021/01/18	NC	75 - 125	110	75 - 125	<100	mg/kg	4.9	30	108	70 - 130
A135315	Total Chromium (Cr)	2021/01/18	93	75 - 125	98	75 - 125	<0.50	mg/kg	23	30	94	70 - 130
A135315	Total Cobalt (Co)	2021/01/18	86	75 - 125	96	75 - 125	<0.10	mg/kg	4.5	30	90	70 - 130
A135315	Total Copper (Cu)	2021/01/18	85	75 - 125	96	75 - 125	<0.50	mg/kg	14	30	93	70 - 130
A135315	Total Iron (Fe)	2021/01/18	NC	75 - 125	115	75 - 125	<100	mg/kg	4.1	30	91	70 - 130
A135315	Total Lead (Pb)	2021/01/18	90	75 - 125	95	75 - 125	<0.10	mg/kg	6.1	40	104	70 - 130
A135315	Total Lithium (Li)	2021/01/18	95	75 - 125	99	75 - 125	<0.50	mg/kg	22	30	84	70 - 130
A135315	Total Magnesium (Mg)	2021/01/18	NC	75 - 125	99	75 - 125	<100	mg/kg	4.3	30	98	70 - 130
A135315	Total Manganese (Mn)	2021/01/18	NC	75 - 125	99	75 - 125	<0.20	mg/kg	17	30	98	70 - 130
A135315	Total Mercury (Hg)	2021/01/18	99	75 - 125	97	75 - 125	<0.050	mg/kg	NC	40		
A135315	Total Molybdenum (Mo)	2021/01/18	101	75 - 125	96	75 - 125	<0.10	mg/kg	21	40	103	70 - 130
A135315	Total Nickel (Ni)	2021/01/18	82	75 - 125	95	75 - 125	<0.50	mg/kg	8.0	30	98	70 - 130
A135315	Total Phosphorus (P)	2021/01/18	104	75 - 125	107	75 - 125	<10	mg/kg	13	30	96	70 - 130
A135315	Total Potassium (K)	2021/01/18	102	75 - 125	101	75 - 125	<100	mg/kg	7.5	40	83	70 - 130
A135315	Total Selenium (Se)	2021/01/18	116	75 - 125	116	75 - 125	<0.50	mg/kg	NC	30		
A135315	Total Silver (Ag)	2021/01/18	95	75 - 125	95	75 - 125	<0.050	mg/kg	NC	40	110	70 - 130
A135315	Total Sodium (Na)	2021/01/18	97	75 - 125	99	75 - 125	<100	mg/kg	4.9	40	87	70 - 130
A135315	Total Strontium (Sr)	2021/01/18	NC	75 - 125	98	75 - 125	<0.10	mg/kg	4.1	40	101	70 - 130
A135315	Total Thallium (Tl)	2021/01/18	92	75 - 125	94	75 - 125	<0.050	mg/kg	NC	30	94	70 - 130
A135315	Total Tin (Sn)	2021/01/18	93	75 - 125	90	75 - 125	<0.10	mg/kg	NC	40	97	70 - 130
A135315	Total Titanium (Ti)	2021/01/18	70 (1)	75 - 125	104	75 - 125	<1.0	mg/kg	23	40		
A135315	Total Tungsten (W)	2021/01/18	90	75 - 125	89	75 - 125	<0.50	mg/kg	NC	40		
A135315	Total Uranium (U)	2021/01/18	93	75 - 125	94	75 - 125	<0.050	mg/kg	1.2	30	95	70 - 130
A135315	Total Vanadium (V)	2021/01/18	87	75 - 125	97	75 - 125	<1.0	mg/kg	3.2	30	97	70 - 130
A135315	Total Zinc (Zn)	2021/01/18	94	75 - 125	98	75 - 125	<1.0	mg/kg	5.5	30	98	70 - 130

BV Labs - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A135315	Total Zirconium (Zr)	2021/01/18	94	75 - 125	106	75 - 125	<0.50	mg/kg	12	40		

N/A = Not Applicable

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

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

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

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

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

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

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

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

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

BV Labs - Partial/Rush Results

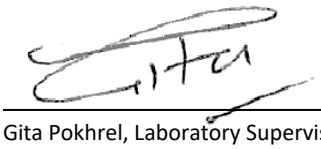
BV Labs Job #: C102068
Report Date: 2021/01/18

Ensero Solutions - Fort St John
Client Project #: SCD 18 01
Site Location: Site C Dam
Your P.O. #: 21663
Sampler Initials: GW

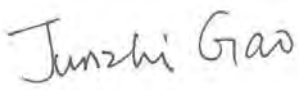
BV Labs - Partial/Rush Results

VALIDATION SIGNATURE PAGE

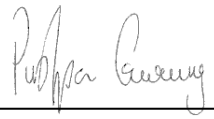
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



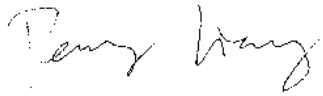
Gita Pokhrel, Laboratory Supervisor



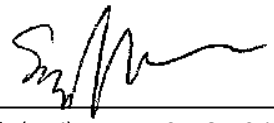
Janet Gao, B.Sc., QP, Supervisor, Organics



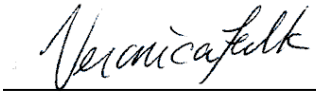
Pushpa Gurung, Lab Manager



Harry (Peng) Liang, Senior Analyst



Sandy (Wei) Yuan, M.Sc., QP, Scientific Specialist



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

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For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs - Partial/Rush Results

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5 Toll Free (833) 282-5227
Victoria: 851 Viewfield Road, Unit 1, Victoria, BC V9A 4V2 Toll Free (833) 282-5227
bvlabs.com

Z13

CHAIN OF CUSTODY RECORD

G 150901

Page _____ of _____

Invoice Information		Report Information (if differs from invoice)		Project Information		Turnaround Time (TAT) Required
Company:	#3429 Enserco Solutions	Company:	#39210 Enserco	Quotation	B50901	☐ 5 - 7 Days Regular (Most analyses)
Contact Name:	Ursula Calderon	Contact Name:	Robert Taylor	P.O. #/AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	Unit 3 Calcite Business Centre 151 Industrial Rd, Whitehorse PC: Y1A 2V3	Address:	Ft St John Peace River B.C PC:	Project #:	SCD 18 01	Rush TAT (Surcharges will be applied)
Phone/Fax:	867 668-6463	Phone/Fax:	778-228-2597	Site Location:	Site C	☒ Same Day ☐ 2 Days ☐ 1 Day ☐ 3-4 Days
Email:	ucalderon@alexcolesonline.com	Email:	rtaylor@enserco.com	Site #:		Date Required:
Copies:		Copies:		Sampled By:	Grey Wahloff	Rush Confirmation #:

Laboratory Use Only

	YES	NO	Cooler ID			
Seal Present	✓		Temp	4	0	1
Seal Intact	✓					
Cooling Media						

	YES	NO	Cooler ID			
Seal Present			Temp			
Seal Intact						
Cooling Media						

	YES	NO	Cooler ID			
Seal Present			Temp			
Seal Intact						
Cooling Media						

Depot Reception
Bureau Veritas
RECEIVED IN FT ST JOHN
JAN 12 2021 - 1400
By: Deanna Malmloff
778
Custody Seal Intact

Analysis Requested

Sample Identification	Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix	# of Containers	☐ BTEXS / VPH	☐ VOC / BTEXS / VPH	☐ BTEX F1	☐ VOC / BTEX / F1	☐ PAH	☐ LEPH / HEPH / PAH	☐ EPH	☐ TEH	☐ F2 - F4	☐ Dissolved Metals	☐ Filtered?	☐ Preserved?	☐ Dissolved Mercury	☐ Filtered?	☐ Preserved?	☐ Total Metals	☐ Field Preserved?	☐ Total Mercury	☐ Field Preserved?	☐ Chloride	☐ Fluoride	☐ Sulphate	☐ TSS	☐ TDS	☐ COD	☐ BOD	☐ pH	☐ Conductivity	☐ Alkalinity	☐ Nitrite	☐ Nitrate	☐ Ammonia	HOLD - DO NOT ANALYZE
1 Reactor 1 Sludge	2021/01/12	12:45	Sludge	4																																
2 Reactor 1 Sludge	2021/01/12	12:45	Sludge	4																																
3																																				
4																																				
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				

Regulatory Criteria: ☐ BC CSR ☐ YK CSR ☐ CCME ☐ Drinking Water ☐ BC Water Quality ☐ Other

Special Instructions

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgement and acceptance of our terms which are available for viewing at www.bvlab.ca/terms

Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	BV Job #
JG Wahloff	2021/01/12	13:30	Jessica Lee	20210113	06:00	C102068

Your P.O. #: 48179
Your C.O.C. #: 34185

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/03/29
Report #: R3002811
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C118044
Received: 2021/03/19, 14:41

Sample Matrix: Sediment
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Carbon, Nitrogen, Sulphur - Combustion (1)	2	N/A	2021/03/25	CAL SOP-00263	AN-A-030609-E-01 m
BC Hydrocarbons in Soil by GC/FID (1)	2	2021/03/22	2021/03/23	CAL SOP-00239	BCMOE EPH S 12/16
EPH less PAH in Soil By GC/FID (1)	2	N/A	2021/03/24		Auto Calc
Glycols in Soil by GC/FID (1)	2	2021/03/24	2021/03/24	CAL SOP-00093	BCMOE Glycols 09/17
Elements by ICPMS (total)	2	2021/03/24	2021/03/25	BBY7SOP-00004 / BBY7SOP-00001	EPA 6020b R2 m
Metals - TCLP	2	2021/03/26	2021/03/26	BBY7SOP-00005 / BBY7SOP-00001	EPA 1311, 6020bR2 m
Moisture (1)	2	N/A	2021/03/23	AB SOP-00002	CCME PHC-CWS m
PAH in Soil by GC/MS (1)	2	2021/03/22	2021/03/22	AB SOP-00003 AB SOP-00036	EPA 3540C/8270E m
Total LMW, HMW, Total PAH Calc (1)	2	N/A	2021/03/23		Auto Calc
pH (2:1 DI Water Extract)	2	2021/03/24	2021/03/25	BBY6SOP-00028	BCMOE BCLM Mar2005 m
TCLP pH Measurements	2	N/A	2021/03/26	BBY7SOP-00005	EPA 1311
Total Oil and Grease	2	2021/03/26	2021/03/26	BBY8SOP-00006	BCMOE BCLM Mar 1997
Volatile HC-BTEX (1)	2	2021/03/20	2021/03/26		Auto Calc
BTEX/MTBE/Styrene/VPH in Soil GC/MS/FID (1)	2	N/A	2021/03/25	CAL SOP-00240	BC MELP VH 2014

Remarks:

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

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

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

Your P.O. #: 48179
Your C.O.C. #: 34185

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/03/29
Report #: R3002811
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C118044
Received: 2021/03/19, 14:41

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by BV Labs Calgary Environmental

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Debbie Nordbruget, Key Account Specialist
Email: Debra.NORDBRUGET@bureauveritas.com
Phone# (250)385-6112
==========
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BV Labs Job #: C118044
Report Date: 2021/03/29

Peace River Hydro Partners
Your P.O. #: 48179

RESULTS OF CHEMICAL ANALYSES OF SEDIMENT

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
Misc. Inorganics					
Total Carbon	%	2.0	2.1	0.050	A187617
Total Sulphur (S)	%	0.13	ND	0.060	A187617
Total Nitrogen (N_2)	%	ND	ND	0.20	A187617
OIL & GREASE					
Total Oil and grease	ug/g	ND	ND	100	A187968
Physical Properties					
Soluble (2:1) pH	pH	8.47	8.42	N/A	A186689

RDL = Reportable Detection Limit
ND = Not detected
N/A = Not Applicable

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

GLYCOLS BY GC-FID (SEDIMENT)

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
Glycols					
Extractable (Water) Ethylene Glycol	mg/kg	ND	ND	10	A186438
Extractable (Water) Diethylene Glycol	mg/kg	ND	ND	10	A186438
Extractable (Water) Triethylene Glycol	mg/kg	ND	ND	10	A186438
Extractable (Water) Propylene Glycol	mg/kg	ND	ND	10	A186438
Surrogate Recovery (%)					
Extractable (Water) Methyl Sulfone (sur.)	%	106	104		A186438

RDL = Reportable Detection Limit
ND = Not detected

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

PHYSICAL TESTING (SEDIMENT)

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
Physical Properties					
Moisture	%	37	38	0.30	A185058
RDL = Reportable Detection Limit					

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

SEMIVOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
Polycyclic Aromatics					
Acenaphthene	mg/kg	ND	ND	0.0050	A184898
Acenaphthylene	mg/kg	ND	ND	0.0050	A184898
Anthracene	mg/kg	ND	ND	0.0040	A184898
Benzo(a)anthracene	mg/kg	ND	ND	0.010	A184898
Benzo(b&j)fluoranthene	mg/kg	0.016	0.025	0.010	A184898
Benzo(k)fluoranthene	mg/kg	ND	ND	0.010	A184898
Benzo(g,h,i)perylene	mg/kg	0.028	0.047	0.020	A184898
Benzo(a)pyrene	mg/kg	ND	ND	0.010	A184898
Chrysene	mg/kg	0.012	0.016	0.010	A184898
Dibenz(a,h)anthracene	mg/kg	ND	ND	0.020	A184898
Fluoranthene	mg/kg	ND	ND	0.010	A184898
Fluorene	mg/kg	ND	ND	0.010	A184898
Indeno(1,2,3-cd)pyrene	mg/kg	ND	ND	0.020	A184898
2-Methylnaphthalene	mg/kg	ND	ND	0.010	A184898
Naphthalene	mg/kg	ND	ND	0.010	A184898
Phenanthrene	mg/kg	0.024	0.030	0.010	A184898
Pyrene	mg/kg	ND	0.010	0.010	A184898
Low Molecular Weight PAH`s	mg/kg	0.024	0.030	0.010	A184163
High Molecular Weight PAH`s	mg/kg	ND	0.027	0.020	A184163
Total PAH	mg/kg	0.036	0.057	0.020	A184163
Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	90	90		A184898
D8-ACENAPHTHYLENE (sur.)	%	83	82		A184898
D8-NAPHTHALENE (sur.)	%	86	84		A184898
D9-Acridine (sur.)	%	57	55		A184898
TERPHENYL-D14 (sur.)	%	107	100		A184898

RDL = Reportable Detection Limit
ND = Not detected

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
TCLP Extraction Procedure					
Leachate Antimony (Sb)	mg/L	ND	ND	0.10	A188534
Leachate Arsenic (As)	mg/L	ND	ND	0.10	A188534
Leachate Barium (Ba)	mg/L	2.50	2.57	0.10	A188534
Leachate Beryllium (Be)	mg/L	ND	ND	0.10	A188534
Leachate Boron (B)	mg/L	ND	ND	0.10	A188534
Leachate Cadmium (Cd)	mg/L	ND	ND	0.10	A188534
Leachate Chromium (Cr)	mg/L	ND	ND	0.10	A188534
Leachate Cobalt (Co)	mg/L	ND	ND	0.10	A188534
Leachate Copper (Cu)	mg/L	ND	ND	0.10	A188534
Leachate Iron (Fe)	mg/L	ND	ND	0.50	A188534
Leachate Lead (Pb)	mg/L	ND	ND	0.10	A188534
Leachate Mercury (Hg)	mg/L	ND	ND	0.0020	A188534
Leachate Molybdenum (Mo)	mg/L	ND	ND	0.10	A188534
Leachate Nickel (Ni)	mg/L	ND	ND	0.10	A188534
Leachate Selenium (Se)	mg/L	ND	ND	0.10	A188534
Leachate Silver (Ag)	mg/L	ND	ND	0.010	A188534
Leachate Thallium (Tl)	mg/L	ND	ND	0.10	A188534
Leachate Uranium (U)	mg/L	ND	ND	0.10	A188534
Leachate Vanadium (V)	mg/L	ND	ND	0.10	A188534
Leachate Zinc (Zn)	mg/L	ND	ND	0.10	A188534
Leachate Zirconium (Zr)	mg/L	ND	ND	0.10	A188534
Initial pH of Sample	pH	9.24	9.22	N/A	A187647
pH after HCl	pH	2.34	2.00	N/A	A187647
Final pH of Leachate	pH	6.21	6.13	N/A	A187647
pH of Leaching Fluid	pH	4.92	4.92	N/A	A187647
Total Metals by ICPMS					
Total Aluminum (Al)	mg/kg	9610	10700	100	A186683
Total Antimony (Sb)	mg/kg	1.14	1.21	0.10	A186683
Total Arsenic (As)	mg/kg	14.1	17.8	0.20	A186683
Total Barium (Ba)	mg/kg	372	381	0.10	A186683
Total Beryllium (Be)	mg/kg	0.53	0.60	0.20	A186683

RDL = Reportable Detection Limit
ND = Not detected
N/A = Not Applicable

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ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
Total Bismuth (Bi)	mg/kg	0.18	0.22	0.10	A186683
Total Boron (B)	mg/kg	5.7	6.0	1.0	A186683
Total Cadmium (Cd)	mg/kg	0.796	0.988	0.050	A186683
Total Calcium (Ca)	mg/kg	41700	39200	100	A186683
Total Chromium (Cr)	mg/kg	27.0	29.0	0.50	A186683
Total Cobalt (Co)	mg/kg	11.3	14.5	0.10	A186683
Total Copper (Cu)	mg/kg	29.1	36.8	0.50	A186683
Total Iron (Fe)	mg/kg	34400	34700	100	A186683
Total Lead (Pb)	mg/kg	13.9	16.0	0.10	A186683
Total Lithium (Li)	mg/kg	10.4	10.3	0.50	A186683
Total Magnesium (Mg)	mg/kg	13300	12700	100	A186683
Total Manganese (Mn)	mg/kg	675	640	0.20	A186683
Total Mercury (Hg)	mg/kg	0.081	0.099	0.050	A186683
Total Molybdenum (Mo)	mg/kg	5.12	7.70	0.10	A186683
Total Nickel (Ni)	mg/kg	31.5	35.7	0.50	A186683
Total Phosphorus (P)	mg/kg	1050	1040	10	A186683
Total Potassium (K)	mg/kg	1340	1500	100	A186683
Total Selenium (Se)	mg/kg	ND	0.55	0.50	A186683
Total Silver (Ag)	mg/kg	0.195	0.249	0.050	A186683
Total Sodium (Na)	mg/kg	145	141	100	A186683
Total Strontium (Sr)	mg/kg	81.2	80.8	0.10	A186683
Total Thallium (Tl)	mg/kg	0.221	0.275	0.050	A186683
Total Tin (Sn)	mg/kg	0.36	0.47	0.10	A186683
Total Titanium (Ti)	mg/kg	128	85.6	1.0	A186683
Total Tungsten (W)	mg/kg	ND	ND	0.50	A186683
Total Uranium (U)	mg/kg	1.43	1.79	0.050	A186683
Total Vanadium (V)	mg/kg	40.0	44.5	1.0	A186683
Total Zinc (Zn)	mg/kg	106	133	1.0	A186683
Total Zirconium (Zr)	mg/kg	4.40	3.83	0.50	A186683

RDL = Reportable Detection Limit
ND = Not detected

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BTEX BY GC-MS (SEDIMENT)

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
Volatiles					
Xylenes (Total)	mg/kg	ND	ND	0.057	A184781
VH C6-C10	mg/kg	ND	ND	8.6	A184781
VPH (VH6 to 10 - BTEX)	mg/kg	ND	ND	8.6	A184781
Field Preserved Volatiles					
Methyl-tert-butylether (MTBE)	mg/kg	ND	ND	0.040	A187240
Benzene	mg/kg	ND	ND	0.0050	A187240
Toluene	mg/kg	ND	ND	0.050	A187240
Ethylbenzene	mg/kg	ND	ND	0.010	A187240
m & p-Xylene	mg/kg	ND	ND	0.040	A187240
o-Xylene	mg/kg	ND	ND	0.040	A187240
Styrene	mg/kg	ND	ND	0.030	A187240
Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	99	100		A187240
4-Bromofluorobenzene (sur.)	%	94	93		A187240
D10-o-Xylene (sur.)	%	138	135		A187240
D4-1,2-Dichloroethane (sur.)	%	106	105		A187240

RDL = Reportable Detection Limit
ND = Not detected

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TOTAL PETROLEUM HYDROCARBONS (SEDIMENT)

BV Labs ID		ZM8680	ZM8681		
Sampling Date		2021/03/17 13:30	2021/03/17 13:10		
COC Number		34185	34185		
	UNITS	Crusher-C-SLP	Crusher-E-SLP	RDL	QC Batch
Ext. Pet. Hydrocarbon					
EPH (C10-C19)	mg/kg	ND	ND	100	A184894
EPH (C19-C32)	mg/kg	ND	ND	100	A184894
LEPH (C10-C19 less PAH)	mg/kg	ND	ND	100	A184780
HEPH (C19-C32 less PAH)	mg/kg	ND	ND	100	A184780
Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	95	95		A184894

RDL = Reportable Detection Limit
ND = Not detected

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GENERAL COMMENTS

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

Package 1	11.3°C

Results relate only to the items tested.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
A184894	MHF	Matrix Spike [ZM8680-01]	O-TERPHENYL (sur.)	2021/03/23		98	%	60 - 140
			EPH (C10-C19)	2021/03/23		87	%	60 - 130
			EPH (C19-C32)	2021/03/23		93	%	60 - 130
A184894	MHF	Spiked Blank	O-TERPHENYL (sur.)	2021/03/23		104	%	60 - 140
			EPH (C10-C19)	2021/03/23		94	%	70 - 130
			EPH (C19-C32)	2021/03/23		94	%	70 - 130
A184894	MHF	Method Blank	O-TERPHENYL (sur.)	2021/03/23		101	%	60 - 140
			EPH (C10-C19)	2021/03/23	ND, RDL=100		mg/kg	
			EPH (C19-C32)	2021/03/23	ND, RDL=100		mg/kg	
A184894	MHF	RPD [ZM8680-01]	EPH (C10-C19)	2021/03/23	NC		%	50
			EPH (C19-C32)	2021/03/23	NC		%	50
A184898	NK3	Matrix Spike [ZM8680-01]	D10-ANTHRACENE (sur.)	2021/03/22		84	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/03/22		77	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/03/22		79	%	50 - 140
			D9-Acridine (sur.)	2021/03/22		58	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/03/22		96	%	50 - 140
			Acenaphthene	2021/03/22		81	%	50 - 140
			Acenaphthylene	2021/03/22		68	%	50 - 140
			Anthracene	2021/03/22		66	%	50 - 140
			Benzo(a)anthracene	2021/03/22		74	%	50 - 140
			Benzo(b&j)fluoranthene	2021/03/22		71	%	50 - 140
			Benzo(k)fluoranthene	2021/03/22		70	%	50 - 140
			Benzo(g,h,i)perylene	2021/03/22		72	%	50 - 140
			Benzo(a)pyrene	2021/03/22		71	%	50 - 140
			Chrysene	2021/03/22		76	%	50 - 140
			Dibenz(a,h)anthracene	2021/03/22		74	%	50 - 140
			Fluoranthene	2021/03/22		77	%	50 - 140
			Fluorene	2021/03/22		75	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/03/22		71	%	50 - 140
			2-Methylnaphthalene	2021/03/22		70	%	50 - 140
			Naphthalene	2021/03/22		73	%	50 - 140
			Phenanthrene	2021/03/22		75	%	50 - 140
			Pyrene	2021/03/22		74	%	50 - 140
A184898	NK3	Spiked Blank	D10-ANTHRACENE (sur.)	2021/03/22		90	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/03/22		81	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/03/22		86	%	50 - 140
			D9-Acridine (sur.)	2021/03/22		68	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/03/22		105	%	50 - 140
			Acenaphthene	2021/03/22		87	%	50 - 140
			Acenaphthylene	2021/03/22		73	%	50 - 140
			Anthracene	2021/03/22		71	%	50 - 140
			Benzo(a)anthracene	2021/03/22		81	%	50 - 140
			Benzo(b&j)fluoranthene	2021/03/22		79	%	50 - 140
			Benzo(k)fluoranthene	2021/03/22		79	%	50 - 140
			Benzo(g,h,i)perylene	2021/03/22		82	%	50 - 140
			Benzo(a)pyrene	2021/03/22		79	%	50 - 140
			Chrysene	2021/03/22		84	%	50 - 140
			Dibenz(a,h)anthracene	2021/03/22		84	%	50 - 140
			Fluoranthene	2021/03/22		84	%	50 - 140
			Fluorene	2021/03/22		80	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/03/22		81	%	50 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			2-Methylnaphthalene	2021/03/22		76	%	50 - 140
			Naphthalene	2021/03/22		77	%	50 - 140
			Phenanthrene	2021/03/22		82	%	50 - 140
			Pyrene	2021/03/22		84	%	50 - 140
A184898	NK3	Method Blank	D10-ANTHRACENE (sur.)	2021/03/22		90	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/03/22		82	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/03/22		85	%	50 - 140
			D9-Acridine (sur.)	2021/03/22		60	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/03/22		108	%	50 - 140
			Acenaphthene	2021/03/22	ND, RDL=0.0050		mg/kg	
			Acenaphthylene	2021/03/22	ND, RDL=0.0050		mg/kg	
			Anthracene	2021/03/22	ND, RDL=0.0040		mg/kg	
			Benzo(a)anthracene	2021/03/22	ND, RDL=0.010		mg/kg	
			Benzo(b&j)fluoranthene	2021/03/22	ND, RDL=0.010		mg/kg	
			Benzo(k)fluoranthene	2021/03/22	ND, RDL=0.010		mg/kg	
			Benzo(g,h,i)perylene	2021/03/22	ND, RDL=0.020		mg/kg	
			Benzo(a)pyrene	2021/03/22	ND, RDL=0.010		mg/kg	
			Chrysene	2021/03/22	ND, RDL=0.010		mg/kg	
			Dibenz(a,h)anthracene	2021/03/22	ND, RDL=0.020		mg/kg	
			Fluoranthene	2021/03/22	ND, RDL=0.010		mg/kg	
			Fluorene	2021/03/22	ND, RDL=0.010		mg/kg	
			Indeno(1,2,3-cd)pyrene	2021/03/22	ND, RDL=0.020		mg/kg	
			2-Methylnaphthalene	2021/03/22	ND, RDL=0.010		mg/kg	
			Naphthalene	2021/03/22	ND, RDL=0.010		mg/kg	
			Phenanthrene	2021/03/22	ND, RDL=0.010		mg/kg	
			Pyrene	2021/03/22	ND, RDL=0.010		mg/kg	
A184898	NK3	RPD [ZM8680-01]	Acenaphthene	2021/03/22	NC		%	50
			Acenaphthylene	2021/03/22	NC		%	50
			Anthracene	2021/03/22	NC		%	50
			Benzo(a)anthracene	2021/03/22	NC		%	50
			Benzo(b&j)fluoranthene	2021/03/22	21		%	50
			Benzo(k)fluoranthene	2021/03/22	NC		%	50
			Benzo(g,h,i)perylene	2021/03/22	23		%	50
			Benzo(a)pyrene	2021/03/22	NC		%	50
			Chrysene	2021/03/22	3.9		%	50
			Dibenz(a,h)anthracene	2021/03/22	NC		%	50
			Fluoranthene	2021/03/22	NC		%	50
			Fluorene	2021/03/22	NC		%	50
			Indeno(1,2,3-cd)pyrene	2021/03/22	NC		%	50

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			2-Methylnaphthalene	2021/03/22	NC		%	50
			Naphthalene	2021/03/22	NC		%	50
			Phenanthrene	2021/03/22	13		%	50
			Pyrene	2021/03/22	NC		%	50
A185058	MAE	Method Blank	Moisture	2021/03/23	ND, RDL=0.30		%	
A185058	MAE	RPD	Moisture	2021/03/23	0.20		%	20
A186438	EC0	Matrix Spike	Extractable (Water) Methyl Sulfone (sur.)	2021/03/24		94	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/03/24		95	%	60 - 140
			Extractable (Water) Diethylene Glycol	2021/03/24		92	%	60 - 140
			Extractable (Water) Triethylene Glycol	2021/03/24		84	%	60 - 140
			Extractable (Water) Propylene Glycol	2021/03/24		89	%	60 - 140
A186438	EC0	Spiked Blank	Extractable (Water) Methyl Sulfone (sur.)	2021/03/24		108	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/03/24		101	%	60 - 140
			Extractable (Water) Diethylene Glycol	2021/03/24		102	%	60 - 140
			Extractable (Water) Triethylene Glycol	2021/03/24		96	%	60 - 140
			Extractable (Water) Propylene Glycol	2021/03/24		97	%	60 - 140
A186438	EC0	Method Blank	Extractable (Water) Methyl Sulfone (sur.)	2021/03/24		106	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/03/24	ND, RDL=10		mg/kg	
			Extractable (Water) Diethylene Glycol	2021/03/24	ND, RDL=10		mg/kg	
			Extractable (Water) Triethylene Glycol	2021/03/24	ND, RDL=10		mg/kg	
			Extractable (Water) Propylene Glycol	2021/03/24	ND, RDL=10		mg/kg	
A186438	EC0	RPD	Extractable (Water) Ethylene Glycol	2021/03/24	NC		%	50
			Extractable (Water) Diethylene Glycol	2021/03/24	NC		%	50
			Extractable (Water) Triethylene Glycol	2021/03/24	NC		%	50
			Extractable (Water) Propylene Glycol	2021/03/24	NC		%	50
A186683	JBN	Matrix Spike	Total Aluminum (Al)	2021/03/25		NC	%	75 - 125
			Total Antimony (Sb)	2021/03/25		99	%	75 - 125
			Total Arsenic (As)	2021/03/25		103	%	75 - 125
			Total Barium (Ba)	2021/03/25		100	%	75 - 125
			Total Beryllium (Be)	2021/03/25		100	%	75 - 125
			Total Bismuth (Bi)	2021/03/25		99	%	75 - 125
			Total Boron (B)	2021/03/25		98	%	75 - 125
			Total Cadmium (Cd)	2021/03/25		103	%	75 - 125
			Total Calcium (Ca)	2021/03/25		NC	%	75 - 125
			Total Chromium (Cr)	2021/03/25		107	%	75 - 125
			Total Cobalt (Co)	2021/03/25		102	%	75 - 125
			Total Copper (Cu)	2021/03/25		103	%	75 - 125
			Total Iron (Fe)	2021/03/25		NC	%	75 - 125
			Total Lead (Pb)	2021/03/25		102	%	75 - 125
			Total Lithium (Li)	2021/03/25		108	%	75 - 125
			Total Magnesium (Mg)	2021/03/25		NC	%	75 - 125
			Total Manganese (Mn)	2021/03/25		NC	%	75 - 125
			Total Mercury (Hg)	2021/03/25		105	%	75 - 125
			Total Molybdenum (Mo)	2021/03/25		100	%	75 - 125
			Total Nickel (Ni)	2021/03/25		99	%	75 - 125
			Total Phosphorus (P)	2021/03/25		95	%	75 - 125
			Total Potassium (K)	2021/03/25		111	%	75 - 125
			Total Selenium (Se)	2021/03/25		105	%	75 - 125
			Total Silver (Ag)	2021/03/25		100	%	75 - 125
			Total Sodium (Na)	2021/03/25		120	%	75 - 125

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Strontium (Sr)	2021/03/25		110	%	75 - 125
			Total Thallium (Tl)	2021/03/25		98	%	75 - 125
			Total Tin (Sn)	2021/03/25		103	%	75 - 125
			Total Titanium (Ti)	2021/03/25		NC	%	75 - 125
			Total Tungsten (W)	2021/03/25		88	%	75 - 125
			Total Uranium (U)	2021/03/25		103	%	75 - 125
			Total Vanadium (V)	2021/03/25		108	%	75 - 125
			Total Zinc (Zn)	2021/03/25		105	%	75 - 125
			Total Zirconium (Zr)	2021/03/25		114	%	75 - 125
A186683	JBN	QC Standard	Total Aluminum (Al)	2021/03/25		108	%	70 - 130
			Total Antimony (Sb)	2021/03/25		121	%	70 - 130
			Total Arsenic (As)	2021/03/25		109	%	70 - 130
			Total Barium (Ba)	2021/03/25		106	%	70 - 130
			Total Beryllium (Be)	2021/03/25		109	%	70 - 130
			Total Cadmium (Cd)	2021/03/25		110	%	70 - 130
			Total Calcium (Ca)	2021/03/25		105	%	70 - 130
			Total Chromium (Cr)	2021/03/25		112	%	70 - 130
			Total Cobalt (Co)	2021/03/25		108	%	70 - 130
			Total Copper (Cu)	2021/03/25		114	%	70 - 130
			Total Iron (Fe)	2021/03/25		112	%	70 - 130
			Total Lead (Pb)	2021/03/25		119	%	70 - 130
			Total Lithium (Li)	2021/03/25		105	%	70 - 130
			Total Magnesium (Mg)	2021/03/25		116	%	70 - 130
			Total Manganese (Mn)	2021/03/25		113	%	70 - 130
			Total Mercury (Hg)	2021/03/25		121	%	70 - 130
			Total Molybdenum (Mo)	2021/03/25		110	%	70 - 130
			Total Nickel (Ni)	2021/03/25		113	%	70 - 130
			Total Phosphorus (P)	2021/03/25		101	%	70 - 130
			Total Potassium (K)	2021/03/25		100	%	70 - 130
			Total Silver (Ag)	2021/03/25		108	%	70 - 130
			Total Sodium (Na)	2021/03/25		106	%	70 - 130
			Total Strontium (Sr)	2021/03/25		114	%	70 - 130
			Total Thallium (Tl)	2021/03/25		101	%	70 - 130
			Total Tin (Sn)	2021/03/25		116	%	70 - 130
			Total Uranium (U)	2021/03/25		109	%	70 - 130
			Total Vanadium (V)	2021/03/25		111	%	70 - 130
			Total Zinc (Zn)	2021/03/25		116	%	70 - 130
A186683	JBN	Spiked Blank	Total Aluminum (Al)	2021/03/25		99	%	75 - 125
			Total Antimony (Sb)	2021/03/25		100	%	75 - 125
			Total Arsenic (As)	2021/03/25		97	%	75 - 125
			Total Barium (Ba)	2021/03/25		96	%	75 - 125
			Total Beryllium (Be)	2021/03/25		98	%	75 - 125
			Total Bismuth (Bi)	2021/03/25		96	%	75 - 125
			Total Boron (B)	2021/03/25		96	%	75 - 125
			Total Cadmium (Cd)	2021/03/25		100	%	75 - 125
			Total Calcium (Ca)	2021/03/25		100	%	75 - 125
			Total Chromium (Cr)	2021/03/25		102	%	75 - 125
			Total Cobalt (Co)	2021/03/25		99	%	75 - 125
			Total Copper (Cu)	2021/03/25		102	%	75 - 125
			Total Iron (Fe)	2021/03/25		101	%	75 - 125
			Total Lead (Pb)	2021/03/25		99	%	75 - 125
			Total Lithium (Li)	2021/03/25		104	%	75 - 125
			Total Magnesium (Mg)	2021/03/25		105	%	75 - 125
			Total Manganese (Mn)	2021/03/25		100	%	75 - 125
			Total Mercury (Hg)	2021/03/25		100	%	75 - 125

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Molybdenum (Mo)	2021/03/25		95	%	75 - 125
			Total Nickel (Ni)	2021/03/25		98	%	75 - 125
			Total Phosphorus (P)	2021/03/25		95	%	75 - 125
			Total Potassium (K)	2021/03/25		104	%	75 - 125
			Total Selenium (Se)	2021/03/25		101	%	75 - 125
			Total Silver (Ag)	2021/03/25		95	%	75 - 125
			Total Sodium (Na)	2021/03/25		106	%	75 - 125
			Total Strontium (Sr)	2021/03/25		98	%	75 - 125
			Total Thallium (Tl)	2021/03/25		94	%	75 - 125
			Total Tin (Sn)	2021/03/25		100	%	75 - 125
			Total Titanium (Ti)	2021/03/25		97	%	75 - 125
			Total Tungsten (W)	2021/03/25		99	%	75 - 125
			Total Uranium (U)	2021/03/25		100	%	75 - 125
			Total Vanadium (V)	2021/03/25		100	%	75 - 125
			Total Zinc (Zn)	2021/03/25		101	%	75 - 125
			Total Zirconium (Zr)	2021/03/25		99	%	75 - 125
A186683	JBN	Method Blank	Total Aluminum (Al)	2021/03/25	ND, RDL=100		mg/kg	
			Total Antimony (Sb)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Arsenic (As)	2021/03/25	ND, RDL=0.20		mg/kg	
			Total Barium (Ba)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Beryllium (Be)	2021/03/25	ND, RDL=0.20		mg/kg	
			Total Bismuth (Bi)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Boron (B)	2021/03/25	ND, RDL=1.0		mg/kg	
			Total Cadmium (Cd)	2021/03/25	ND, RDL=0.050		mg/kg	
			Total Calcium (Ca)	2021/03/25	ND, RDL=100		mg/kg	
			Total Chromium (Cr)	2021/03/25	ND, RDL=0.50		mg/kg	
			Total Cobalt (Co)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Copper (Cu)	2021/03/25	ND, RDL=0.50		mg/kg	
			Total Iron (Fe)	2021/03/25	ND, RDL=100		mg/kg	
			Total Lead (Pb)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Lithium (Li)	2021/03/25	ND, RDL=0.50		mg/kg	
			Total Magnesium (Mg)	2021/03/25	ND, RDL=100		mg/kg	
			Total Manganese (Mn)	2021/03/25	ND, RDL=0.20		mg/kg	
			Total Mercury (Hg)	2021/03/25	ND, RDL=0.050		mg/kg	
			Total Molybdenum (Mo)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Nickel (Ni)	2021/03/25	ND, RDL=0.50		mg/kg	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Phosphorus (P)	2021/03/25	ND, RDL=10		mg/kg	
			Total Potassium (K)	2021/03/25	ND, RDL=100		mg/kg	
			Total Selenium (Se)	2021/03/25	ND, RDL=0.50		mg/kg	
			Total Silver (Ag)	2021/03/25	ND, RDL=0.050		mg/kg	
			Total Sodium (Na)	2021/03/25	ND, RDL=100		mg/kg	
			Total Strontium (Sr)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Thallium (Tl)	2021/03/25	ND, RDL=0.050		mg/kg	
			Total Tin (Sn)	2021/03/25	ND, RDL=0.10		mg/kg	
			Total Titanium (Ti)	2021/03/25	ND, RDL=1.0		mg/kg	
			Total Tungsten (W)	2021/03/25	ND, RDL=0.50		mg/kg	
			Total Uranium (U)	2021/03/25	ND, RDL=0.050		mg/kg	
			Total Vanadium (V)	2021/03/25	ND, RDL=1.0		mg/kg	
			Total Zinc (Zn)	2021/03/25	ND, RDL=1.0		mg/kg	
			Total Zirconium (Zr)	2021/03/25	ND, RDL=0.50		mg/kg	
A186683	JBN	RPD	Total Aluminum (Al)	2021/03/25	1.5		%	40
			Total Antimony (Sb)	2021/03/25	13		%	30
			Total Arsenic (As)	2021/03/25	4.3		%	30
			Total Barium (Ba)	2021/03/25	3.8		%	40
			Total Beryllium (Be)	2021/03/25	7.4		%	30
			Total Bismuth (Bi)	2021/03/25	NC		%	30
			Total Boron (B)	2021/03/25	7.0		%	30
			Total Cadmium (Cd)	2021/03/25	NC		%	30
			Total Calcium (Ca)	2021/03/25	4.0		%	30
			Total Chromium (Cr)	2021/03/25	2.0		%	30
			Total Cobalt (Co)	2021/03/25	7.4		%	30
			Total Copper (Cu)	2021/03/25	0.40		%	30
			Total Iron (Fe)	2021/03/25	4.6		%	30
			Total Lead (Pb)	2021/03/25	6.3		%	40
			Total Lithium (Li)	2021/03/25	2.5		%	30
			Total Magnesium (Mg)	2021/03/25	6.3		%	30
			Total Manganese (Mn)	2021/03/25	3.4		%	30
			Total Mercury (Hg)	2021/03/25	NC		%	40
			Total Molybdenum (Mo)	2021/03/25	31		%	40
			Total Nickel (Ni)	2021/03/25	1.3		%	30
			Total Phosphorus (P)	2021/03/25	3.7		%	30
			Total Potassium (K)	2021/03/25	2.8		%	40
			Total Selenium (Se)	2021/03/25	NC		%	30
			Total Silver (Ag)	2021/03/25	NC		%	40
			Total Sodium (Na)	2021/03/25	1.2		%	40
			Total Strontium (Sr)	2021/03/25	2.4		%	40
			Total Thallium (Tl)	2021/03/25	NC		%	30
			Total Tin (Sn)	2021/03/25	6.5		%	40

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Titanium (Ti)	2021/03/25	7.1		%	40
			Total Tungsten (W)	2021/03/25	NC		%	40
			Total Uranium (U)	2021/03/25	1.2		%	30
			Total Vanadium (V)	2021/03/25	1.8		%	30
			Total Zinc (Zn)	2021/03/25	11		%	30
			Total Zirconium (Zr)	2021/03/25	0.67		%	40
A186689	JGD	Spiked Blank	Soluble (2:1) pH	2021/03/25		100	%	97 - 103
A186689	JGD	RPD	Soluble (2:1) pH	2021/03/25	0.37		%	N/A
A187240	DO1	Matrix Spike [ZM8680-02]	1,4-Difluorobenzene (sur.)	2021/03/25		102	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/03/25		98	%	60 - 140
			D10-o-Xylene (sur.)	2021/03/25		138	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/03/25		105	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/03/25		126	%	50 - 140
			Benzene	2021/03/25		125	%	50 - 140
			Toluene	2021/03/25		125	%	50 - 140
			Ethylbenzene	2021/03/25		124	%	50 - 140
			m & p-Xylene	2021/03/25		125	%	50 - 140
			o-Xylene	2021/03/25		124	%	50 - 140
			Styrene	2021/03/25		125	%	50 - 140
A187240	DO1	Spiked Blank	1,4-Difluorobenzene (sur.)	2021/03/25		97	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/03/25		98	%	60 - 140
			D10-o-Xylene (sur.)	2021/03/25		128	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/03/25		106	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/03/25		117	%	60 - 130
			Benzene	2021/03/25		106	%	60 - 130
			Toluene	2021/03/25		104	%	60 - 130
			Ethylbenzene	2021/03/25		105	%	60 - 130
			m & p-Xylene	2021/03/25		103	%	60 - 130
			o-Xylene	2021/03/25		106	%	60 - 130
			Styrene	2021/03/25		103	%	60 - 130
A187240	DO1	Method Blank	1,4-Difluorobenzene (sur.)	2021/03/25		100	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/03/25		100	%	60 - 140
			D10-o-Xylene (sur.)	2021/03/25		125	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/03/25		106	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/03/25	ND, RDL=0.040		mg/kg	
			Benzene	2021/03/25	ND, RDL=0.0050		mg/kg	
			Toluene	2021/03/25	ND, RDL=0.050		mg/kg	
			Ethylbenzene	2021/03/25	ND, RDL=0.010		mg/kg	
			m & p-Xylene	2021/03/25	ND, RDL=0.040		mg/kg	
			o-Xylene	2021/03/25	ND, RDL=0.040		mg/kg	
			Styrene	2021/03/25	ND, RDL=0.030		mg/kg	
A187240	DO1	RPD [ZM8680-02]	Methyl-tert-butylether (MTBE)	2021/03/25	NC		%	50
			Benzene	2021/03/25	NC		%	50
			Toluene	2021/03/25	NC		%	50
			Ethylbenzene	2021/03/25	NC		%	50
			m & p-Xylene	2021/03/25	NC		%	50
			o-Xylene	2021/03/25	NC		%	50

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Styrene	2021/03/25	NC		%	50
A187617	PL	QC Standard	Total Carbon	2021/03/25		96	%	75 - 125
			Total Sulphur (S)	2021/03/25		92	%	75 - 125
			Total Nitrogen (N_2)	2021/03/25		104	%	75 - 125
A187617	PL	Spiked Blank	Total Carbon	2021/03/25		98	%	75 - 125
			Total Sulphur (S)	2021/03/25		98	%	75 - 125
			Total Nitrogen (N_2)	2021/03/25		102	%	75 - 125
A187617	PL	Method Blank	Total Carbon	2021/03/25	ND, RDL=0.050		%	
			Total Sulphur (S)	2021/03/25	ND, RDL=0.060		%	
			Total Nitrogen (N_2)	2021/03/25	ND, RDL=0.20		%	
A187617	PL	RPD [ZM8680-01]	Total Carbon	2021/03/25	5.8		%	30
			Total Sulphur (S)	2021/03/25	13		%	30
			Total Nitrogen (N_2)	2021/03/25	NC		%	30
A187647	AP8	Method Blank	Initial pH of Sample	2021/03/26	4.92		pH	
			Final pH of Leachate	2021/03/26	4.90		pH	
			pH of Leaching Fluid	2021/03/26	4.92		pH	
A187647	AP8	RPD [ZM8681-01]	Initial pH of Sample	2021/03/26	0.54		%	N/A
			pH after HCl	2021/03/26	5.4		%	N/A
			Final pH of Leachate	2021/03/26	0.65		%	N/A
			pH of Leaching Fluid	2021/03/26	0		%	N/A
A187968	MPE	Matrix Spike [ZM8680-01]	Total Oil and grease	2021/03/26		94	%	65 - 135
A187968	MPE	Spiked Blank	Total Oil and grease	2021/03/26		96	%	65 - 135
A187968	MPE	Method Blank	Total Oil and grease	2021/03/26	ND, RDL=100		ug/g	
A187968	MPE	RPD [ZM8680-01]	Total Oil and grease	2021/03/26	NC		%	30
A188534	JBN	Matrix Spike [ZM8681-01]	Leachate Antimony (Sb)	2021/03/26		100	%	75 - 125
			Leachate Arsenic (As)	2021/03/26		101	%	75 - 125
			Leachate Barium (Ba)	2021/03/26		87	%	75 - 125
			Leachate Beryllium (Be)	2021/03/26		96	%	75 - 125
			Leachate Boron (B)	2021/03/26		94	%	75 - 125
			Leachate Cadmium (Cd)	2021/03/26		101	%	75 - 125
			Leachate Chromium (Cr)	2021/03/26		102	%	75 - 125
			Leachate Cobalt (Co)	2021/03/26		98	%	75 - 125
			Leachate Copper (Cu)	2021/03/26		95	%	75 - 125
			Leachate Iron (Fe)	2021/03/26		101	%	75 - 125
			Leachate Lead (Pb)	2021/03/26		97	%	75 - 125
			Leachate Mercury (Hg)	2021/03/26		101	%	75 - 125
			Leachate Molybdenum (Mo)	2021/03/26		101	%	75 - 125
			Leachate Nickel (Ni)	2021/03/26		96	%	75 - 125
			Leachate Selenium (Se)	2021/03/26		106	%	75 - 125
			Leachate Silver (Ag)	2021/03/26		98	%	75 - 125
			Leachate Thallium (Tl)	2021/03/26		96	%	75 - 125
			Leachate Uranium (U)	2021/03/26		99	%	75 - 125
			Leachate Vanadium (V)	2021/03/26		107	%	75 - 125
			Leachate Zinc (Zn)	2021/03/26		99	%	75 - 125
			Leachate Zirconium (Zr)	2021/03/26		104	%	75 - 125
A188534	JBN	Spiked Blank	Leachate Antimony (Sb)	2021/03/26		101	%	75 - 125
			Leachate Arsenic (As)	2021/03/26		99	%	75 - 125
			Leachate Barium (Ba)	2021/03/26		92	%	75 - 125
			Leachate Beryllium (Be)	2021/03/26		92	%	75 - 125

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachate Boron (B)	2021/03/26		92	%	75 - 125
			Leachate Cadmium (Cd)	2021/03/26		99	%	75 - 125
			Leachate Chromium (Cr)	2021/03/26		101	%	75 - 125
			Leachate Cobalt (Co)	2021/03/26		97	%	75 - 125
			Leachate Copper (Cu)	2021/03/26		96	%	75 - 125
			Leachate Iron (Fe)	2021/03/26		98	%	75 - 125
			Leachate Lead (Pb)	2021/03/26		94	%	75 - 125
			Leachate Mercury (Hg)	2021/03/26		99	%	75 - 125
			Leachate Molybdenum (Mo)	2021/03/26		100	%	75 - 125
			Leachate Nickel (Ni)	2021/03/26		96	%	75 - 125
			Leachate Selenium (Se)	2021/03/26		106	%	75 - 125
			Leachate Silver (Ag)	2021/03/26		98	%	75 - 125
			Leachate Thallium (Tl)	2021/03/26		92	%	75 - 125
			Leachate Uranium (U)	2021/03/26		96	%	75 - 125
			Leachate Vanadium (V)	2021/03/26		101	%	75 - 125
			Leachate Zinc (Zn)	2021/03/26		98	%	75 - 125
			Leachate Zirconium (Zr)	2021/03/26		105	%	75 - 125
A188534	JBN	Method Blank	Leachate Antimony (Sb)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Arsenic (As)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Barium (Ba)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Beryllium (Be)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Boron (B)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Cadmium (Cd)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Chromium (Cr)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Cobalt (Co)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Copper (Cu)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Iron (Fe)	2021/03/26	ND, RDL=0.50		mg/L	
			Leachate Lead (Pb)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Mercury (Hg)	2021/03/26	ND, RDL=0.0020		mg/L	
			Leachate Molybdenum (Mo)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Nickel (Ni)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Selenium (Se)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Silver (Ag)	2021/03/26	ND, RDL=0.010		mg/L	
			Leachate Thallium (Tl)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Uranium (U)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Vanadium (V)	2021/03/26	ND, RDL=0.10		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachate Zinc (Zn)	2021/03/26	ND, RDL=0.10		mg/L	
			Leachate Zirconium (Zr)	2021/03/26	ND, RDL=0.10		mg/L	
A188534	JBN	RPD [ZM8681-01]	Leachate Antimony (Sb)	2021/03/26	NC		%	35
			Leachate Arsenic (As)	2021/03/26	NC		%	35
			Leachate Barium (Ba)	2021/03/26	7.0		%	35
			Leachate Beryllium (Be)	2021/03/26	NC		%	35
			Leachate Boron (B)	2021/03/26	NC		%	35
			Leachate Cadmium (Cd)	2021/03/26	NC		%	35
			Leachate Chromium (Cr)	2021/03/26	NC		%	35
			Leachate Cobalt (Co)	2021/03/26	NC		%	35
			Leachate Copper (Cu)	2021/03/26	NC		%	35
			Leachate Iron (Fe)	2021/03/26	NC		%	35
			Leachate Lead (Pb)	2021/03/26	NC		%	35
			Leachate Mercury (Hg)	2021/03/26	NC		%	35
			Leachate Molybdenum (Mo)	2021/03/26	NC		%	35
			Leachate Nickel (Ni)	2021/03/26	NC		%	35
			Leachate Selenium (Se)	2021/03/26	NC		%	35
			Leachate Silver (Ag)	2021/03/26	NC		%	35
			Leachate Thallium (Tl)	2021/03/26	NC		%	35
			Leachate Uranium (U)	2021/03/26	NC		%	35
			Leachate Vanadium (V)	2021/03/26	NC		%	35
			Leachate Zinc (Zn)	2021/03/26	NC		%	35
			Leachate Zirconium (Zr)	2021/03/26	NC		%	35

N/A = Not Applicable

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

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

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

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

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

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

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

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

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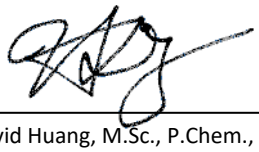
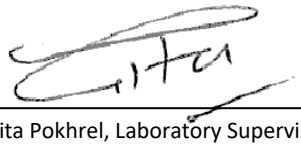
VALIDATION SIGNATURE PAGE

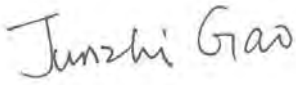
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



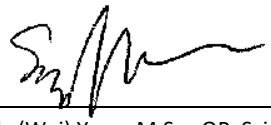
David Huang, M.Sc., P.Chem., QP, Scientific Services Manager



Gita Pokhrel, Laboratory Supervisor



Janet Gao, B.Sc., QP, Supervisor, Organics



Sandy (Wei) Yuan, M.Sc., QP, Scientific Specialist



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Custody Tracking Form

b47

W34185

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain Of Custody).
Please ensure your form has a barcode or a BV Labs eCOC confirmation number in the top right hand side. This number links your electronic submission to your samples.

First Sample: Crusher-C-SLP
Last Sample: Crusher-E-SLP
Sample Count: 2

Relinquished By				Received By			
Ifuany, Ndukwe	[signature]	Date	2021/03/19	Clementine Uwitije	[signature]	Date	2021/03/20
		Time (24 HR)	14:10			Time (24 HR)	06:30
		Date				Date	
		Time (24 HR)				Time (24 HR)	
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvlabs.com

Submission Triage Information

Sampled By: Lukas Bannatto

# of Coolers/Pkgs:

Rush ☐ Immediate Test ☐ Food Residue ☐
Micro ☐ Food Chemistry ☐

*** LAB USE ONLY ***

Received At

Labeled By
19-Mar-21 14:41
Debbie Nordbruget
C118044

AIN INS-0034

Comments:

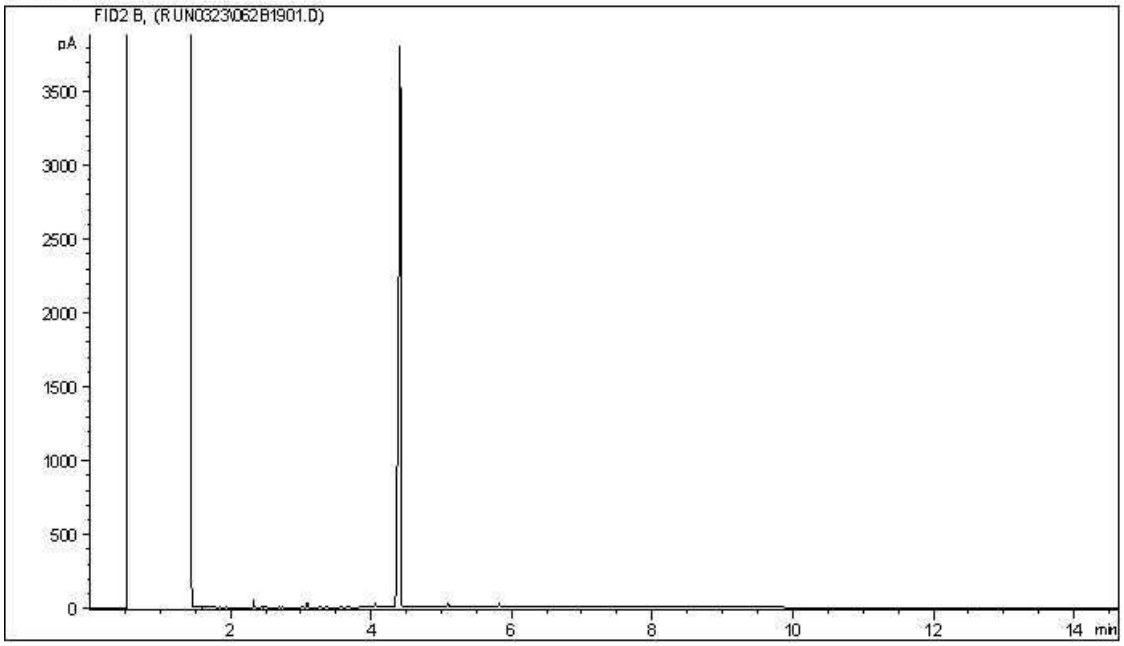
Bureau Veritas
RECEIVED IN FT ST JOHN
MAR 19 2021
14:41
11/11/12
By: ~~Deanna Malmloff~~
Gloria Newhook
GNewhook
no cs present

Custody Seal		Cooling Media	Temperature °C		
Present (Y/N)	Intact (Y/N)	Present (Y/N)	1	2	3
Y	Y	Y	-1	0	1
Y	Y	Y	-1	-1	-1

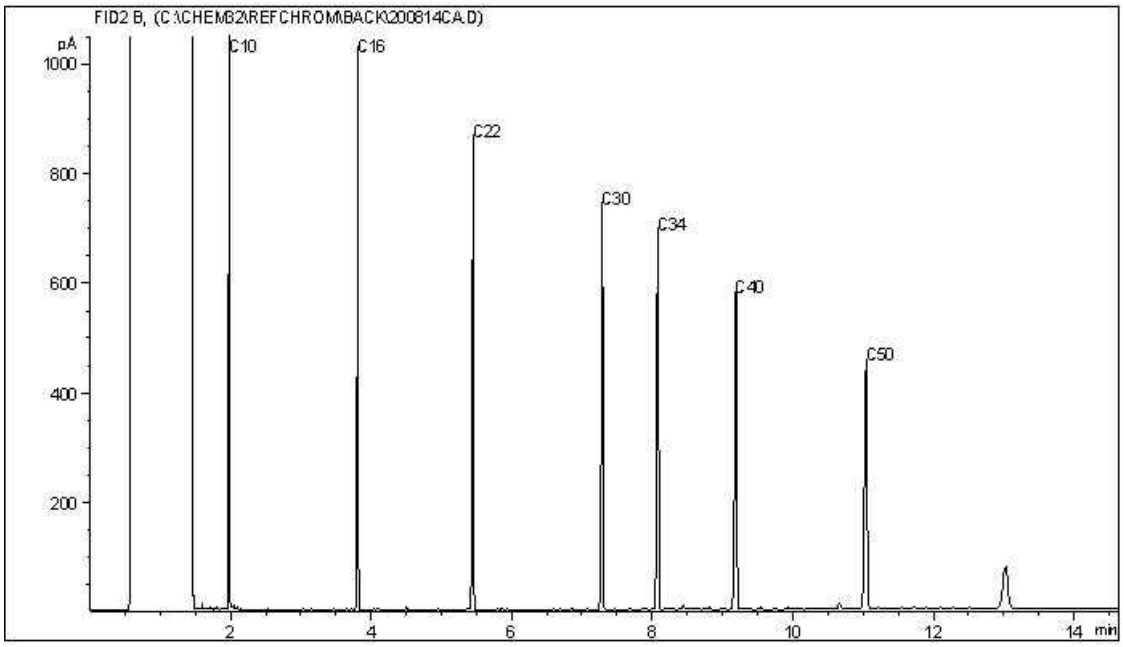
Page 1 of 1

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC7



Carbon Range Distribution - Reference Chromatogram



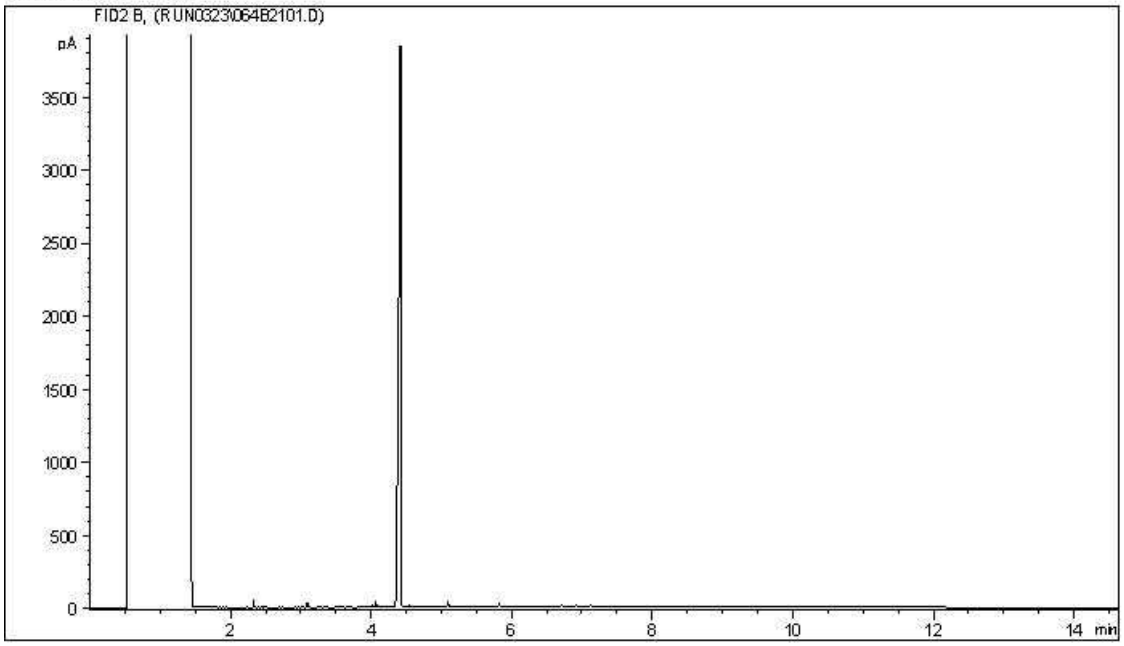
TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

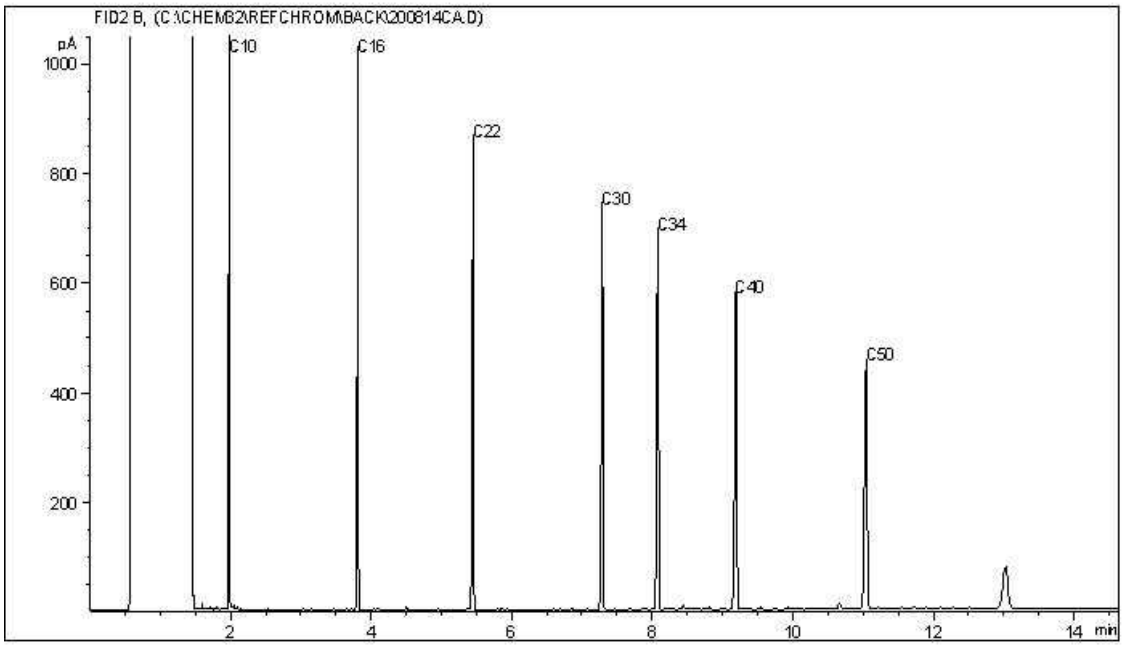
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC7



Carbon Range Distribution - Reference Chromatogram



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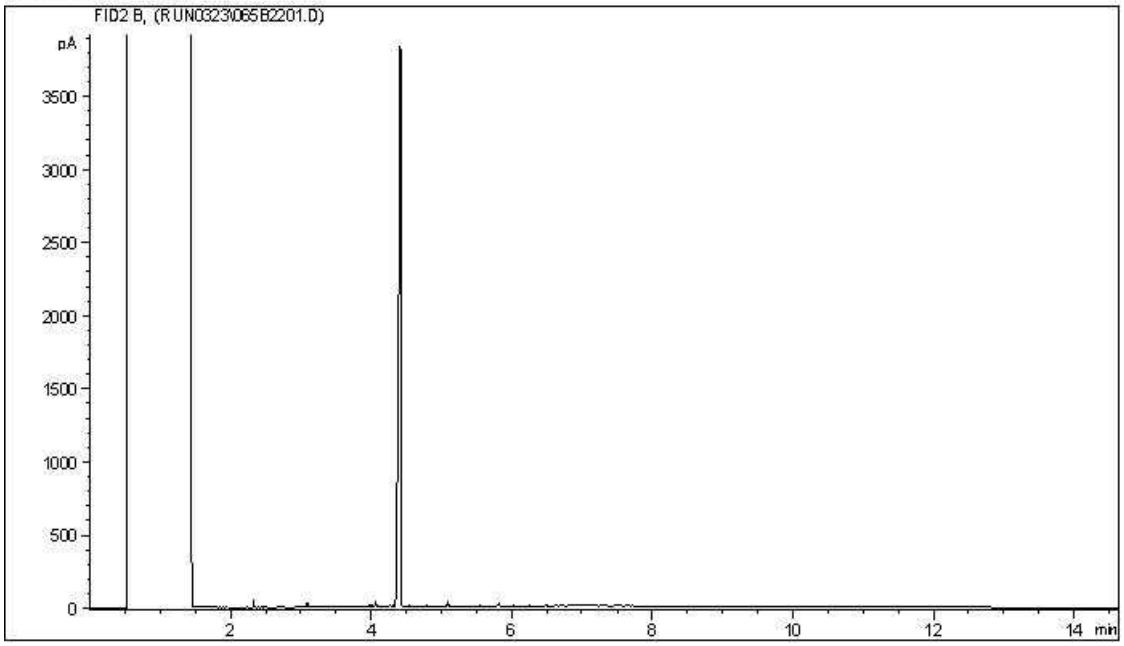
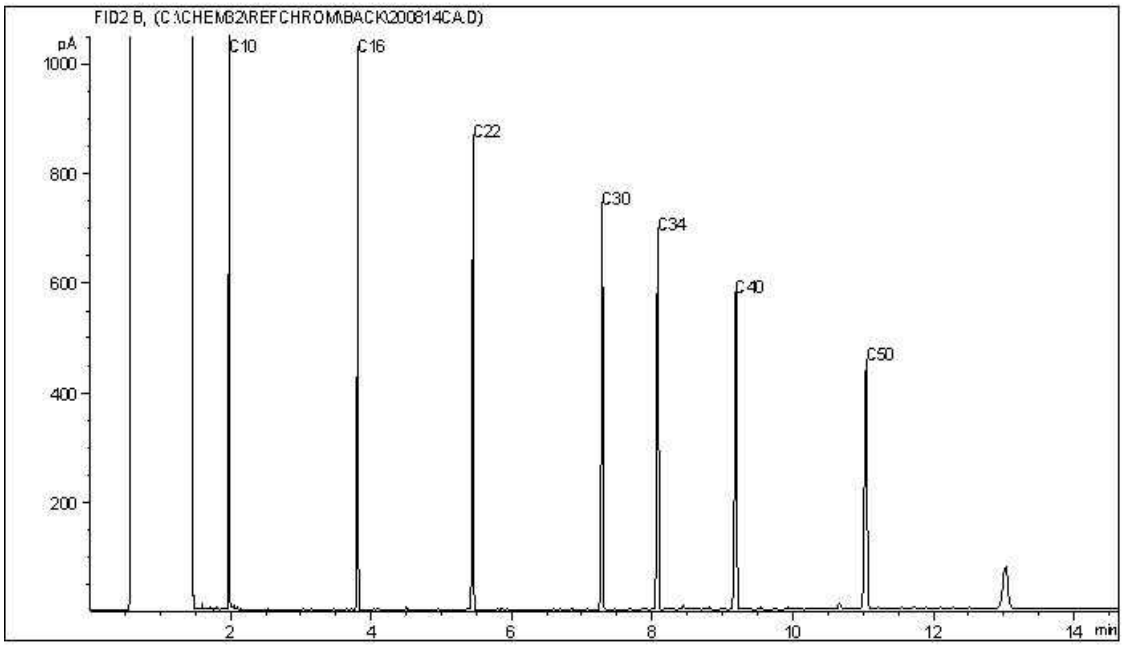
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC7



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
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Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

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

Your P.O. #: 48179
Site Location: SITE C
Your C.O.C. #: 34561

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/04/13
Report #: R3007862
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C121118
Received: 2021/04/01, 14:00

Sample Matrix: Sediment
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Carbon, Nitrogen, Sulphur - Combustion (1)	2	N/A	2021/04/12	CAL SOP-00263	AN-A-030609-E-01 m
BC Hydrocarbons in Soil by GC/FID (1)	2	2021/04/04	2021/04/05	CAL SOP-00239	BCMOE EPH S 12/16
EPH less PAH in Soil By GC/FID (1)	2	N/A	2021/04/06		Auto Calc
Glycols in Soil by GC/FID (1)	2	2021/04/04	2021/04/05	CAL SOP-00093	BCMOE Glycols 09/17
Elements by ICPMS (total)	2	2021/04/07	2021/04/07	BBY7SOP-00004 / BBY7SOP-00001	EPA 6020b R2 m
Metals - TCLP	2	2021/04/07	2021/04/07	BBY7SOP-00005 / BBY7SOP-00001	EPA 1311, 6020bR2 m
Moisture (1)	2	N/A	2021/04/05	AB SOP-00002	CCME PHC-CWS m
PAH in Soil by GC/MS (1)	2	2021/04/04	2021/04/05	AB SOP-00003 AB SOP-00036	EPA 3540C/8270E m
Total LMW, HMW, Total PAH Calc (1)	2	N/A	2021/04/05		Auto Calc
pH (2:1 DI Water Extract)	2	2021/04/07	2021/04/07	BBY6SOP-00028	BCMOE BCLM Mar2005 m
TCLP pH Measurements	2	N/A	2021/04/07	BBY7SOP-00005	EPA 1311
Total Oil and Grease	2	2021/04/08	2021/04/08	BBY8SOP-00006	BCMOE BCLM Mar 1997
Volatile HC-BTEX (1)	2	2021/04/03	2021/04/07		Auto Calc
BTEX/MTBE/Styrene/VPH in Soil GC/MS/FID (1)	2	N/A	2021/04/07	CAL SOP-00240	BC MELP VH 2014

Remarks:

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

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

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

Your P.O. #: 48179
Site Location: SITE C
Your C.O.C. #: 34561

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/04/13
Report #: R3007862
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C121118
Received: 2021/04/01, 14:00

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by BV Labs Calgary Environmental

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Debbie Nordbruget, Key Account Specialist
Email: Debra.NORDBRUGET@bureauveritas.com
Phone# (250)385-6112
==========
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BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

RESULTS OF CHEMICAL ANALYSES OF SEDIMENT

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
Misc. Inorganics					
Total Carbon	%	2.0	2.0	0.050	A198074
Total Sulphur (S)	%	0.13	0.11	0.060	A198074
OIL & GREASE					
Total Oil and grease	ug/g	ND	ND	100	A195906
Physical Properties					
Soluble (2:1) pH	pH	8.45	8.37	N/A	A194780

RDL = Reportable Detection Limit
ND = Not detected
N/A = Not Applicable

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

GLYCOLS BY GC-FID (SEDIMENT)

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
Glycols					
Extractable (Water) Ethylene Glycol	mg/kg	ND	ND	10	A193229
Extractable (Water) Diethylene Glycol	mg/kg	ND	ND	10	A193229
Extractable (Water) Triethylene Glycol	mg/kg	ND	ND	10	A193229
Extractable (Water) Propylene Glycol	mg/kg	ND	ND	10	A193229
Surrogate Recovery (%)					
Extractable (Water) Methyl Sulfone (sur.)	%	91	95		A193229

RDL = Reportable Detection Limit
ND = Not detected

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BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

PHYSICAL TESTING (SEDIMENT)

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
Physical Properties					
Moisture	%	29	43	0.30	A193020
RDL = Reportable Detection Limit					

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

SEMIVOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
Polycyclic Aromatics					
Acenaphthene	mg/kg	ND	ND	0.0050	A193024
Acenaphthylene	mg/kg	ND	ND	0.0050	A193024
Acridine	mg/kg	ND	ND	0.050	A193024
Anthracene	mg/kg	ND	ND	0.0040	A193024
Benzo(a)anthracene	mg/kg	ND	ND	0.010	A193024
Benzo(b&j)fluoranthene	mg/kg	0.018	0.029	0.010	A193024
Benzo(k)fluoranthene	mg/kg	ND	ND	0.010	A193024
Benzo(g,h,i)perylene	mg/kg	0.020	0.049	0.020	A193024
Benzo(a)pyrene	mg/kg	ND	ND	0.010	A193024
Chrysene	mg/kg	0.011	0.016	0.010	A193024
Dibenz(a,h)anthracene	mg/kg	ND	ND	0.020	A193024
Fluoranthene	mg/kg	ND	ND	0.010	A193024
Fluorene	mg/kg	ND	ND	0.010	A193024
Indeno(1,2,3-cd)pyrene	mg/kg	ND	ND	0.020	A193024
1-Methylnaphthalene	mg/kg	ND	0.010	0.010	A193024
2-Methylnaphthalene	mg/kg	0.010	0.013	0.010	A193024
Naphthalene	mg/kg	ND	0.011	0.010	A193024
Phenanthrene	mg/kg	0.032	0.041	0.010	A193024
Pyrene	mg/kg	ND	0.014	0.010	A193024
Quinoline	mg/kg	ND	ND	0.020	A193024
Low Molecular Weight PAH`s	mg/kg	0.042	0.066	0.010	A192793
High Molecular Weight PAH`s	mg/kg	ND	0.030	0.020	A192793
Total PAH	mg/kg	0.053	0.096	0.020	A192793
Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	81	83		A193024
D8-ACENAPHTHYLENE (sur.)	%	76	79		A193024
D8-NAPHTHALENE (sur.)	%	74	75		A193024
D9-Acridine (sur.)	%	58	58		A193024
TERPHENYL-D14 (sur.)	%	80	80		A193024

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BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
TCLP Extraction Procedure					
Leachate Antimony (Sb)	mg/L	ND	ND	0.10	A195358
Leachate Arsenic (As)	mg/L	ND	ND	0.10	A195358
Leachate Barium (Ba)	mg/L	2.42	2.61	0.10	A195358
Leachate Beryllium (Be)	mg/L	ND	ND	0.10	A195358
Leachate Boron (B)	mg/L	ND	ND	0.10	A195358
Leachate Cadmium (Cd)	mg/L	ND	ND	0.10	A195358
Leachate Chromium (Cr)	mg/L	ND	ND	0.10	A195358
Leachate Cobalt (Co)	mg/L	ND	ND	0.10	A195358
Leachate Copper (Cu)	mg/L	ND	ND	0.10	A195358
Leachate Iron (Fe)	mg/L	ND	ND	0.50	A195358
Leachate Lead (Pb)	mg/L	ND	ND	0.10	A195358
Leachate Mercury (Hg)	mg/L	ND	ND	0.0020	A195358
Leachate Molybdenum (Mo)	mg/L	ND	ND	0.10	A195358
Leachate Nickel (Ni)	mg/L	ND	ND	0.10	A195358
Leachate Selenium (Se)	mg/L	ND	ND	0.10	A195358
Leachate Silver (Ag)	mg/L	ND	ND	0.010	A195358
Leachate Thallium (Tl)	mg/L	ND	ND	0.10	A195358
Leachate Uranium (U)	mg/L	ND	ND	0.10	A195358
Leachate Vanadium (V)	mg/L	ND	ND	0.10	A195358
Leachate Zinc (Zn)	mg/L	ND	ND	0.10	A195358
Leachate Zirconium (Zr)	mg/L	ND	ND	0.10	A195358
Initial pH of Sample	pH	9.31	9.39	N/A	A195015
pH after HCl	pH	2.25	2.02	N/A	A195015
Final pH of Leachate	pH	6.34	6.04	N/A	A195015
pH of Leaching Fluid	pH	4.91	4.91	N/A	A195015
Total Metals by ICPMS					
Total Aluminum (Al)	mg/kg	8130	9120	100	A194774
Total Antimony (Sb)	mg/kg	1.23	1.27	0.10	A194774
Total Arsenic (As)	mg/kg	13.3	15.7	0.20	A194774
Total Barium (Ba)	mg/kg	319	359	0.10	A194774

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BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
Total Beryllium (Be)	mg/kg	0.43	0.53	0.20	A194774
Total Bismuth (Bi)	mg/kg	0.15	0.23	0.10	A194774
Total Boron (B)	mg/kg	3.6	3.8	1.0	A194774
Total Cadmium (Cd)	mg/kg	0.704	0.808	0.050	A194774
Total Calcium (Ca)	mg/kg	38400	37700	100	A194774
Total Chromium (Cr)	mg/kg	27.5	27.1	0.50	A194774
Total Cobalt (Co)	mg/kg	11.8	13.0	0.10	A194774
Total Copper (Cu)	mg/kg	28.1	32.6	0.50	A194774
Total Iron (Fe)	mg/kg	30600	33100	100	A194774
Total Lead (Pb)	mg/kg	13.2	14.7	0.10	A194774
Total Lithium (Li)	mg/kg	9.20	9.71	0.50	A194774
Total Magnesium (Mg)	mg/kg	11500	11400	100	A194774
Total Manganese (Mn)	mg/kg	645	648	0.20	A194774
Total Mercury (Hg)	mg/kg	0.087	0.087	0.050	A194774
Total Molybdenum (Mo)	mg/kg	4.08	5.61	0.10	A194774
Total Nickel (Ni)	mg/kg	30.5	34.0	0.50	A194774
Total Phosphorus (P)	mg/kg	874	957	10	A194774
Total Potassium (K)	mg/kg	958	1100	100	A194774
Total Selenium (Se)	mg/kg	ND	ND	0.50	A194774
Total Silver (Ag)	mg/kg	0.126	0.184	0.050	A194774
Total Sodium (Na)	mg/kg	133	130	100	A194774
Total Strontium (Sr)	mg/kg	68.8	69.3	0.10	A194774
Total Thallium (Tl)	mg/kg	0.207	0.256	0.050	A194774
Total Tin (Sn)	mg/kg	0.28	0.33	0.10	A194774
Total Titanium (Ti)	mg/kg	108	82.3	1.0	A194774
Total Tungsten (W)	mg/kg	ND	ND	0.50	A194774
Total Uranium (U)	mg/kg	1.06	1.33	0.050	A194774
Total Vanadium (V)	mg/kg	33.7	36.6	1.0	A194774
Total Zinc (Zn)	mg/kg	92.0	110	1.0	A194774
Total Zirconium (Zr)	mg/kg	3.72	3.50	0.50	A194774

RDL = Reportable Detection Limit
ND = Not detected

BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

BTEX BY GC-MS (SEDIMENT)

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
Volatiles					
Xylenes (Total)	mg/kg	ND	ND	0.057	A192791
VH C6-C10	mg/kg	ND	ND	8.6	A192791
VPH (VH6 to 10 - BTEX)	mg/kg	ND	ND	8.6	A192791
Field Preserved Volatiles					
Methyl-tert-butylether (MTBE)	mg/kg	ND	ND	0.040	A194226
Benzene	mg/kg	ND	ND	0.0050	A194226
Toluene	mg/kg	ND	ND	0.050	A194226
Ethylbenzene	mg/kg	ND	ND	0.010	A194226
m & p-Xylene	mg/kg	ND	ND	0.040	A194226
o-Xylene	mg/kg	ND	ND	0.040	A194226
Styrene	mg/kg	ND	ND	0.030	A194226
Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	119	119		A194226
4-Bromofluorobenzene (sur.)	%	105	104		A194226
D10-o-Xylene (sur.)	%	139	140		A194226
D4-1,2-Dichloroethane (sur.)	%	123	121		A194226

RDL = Reportable Detection Limit
ND = Not detected

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BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

TOTAL PETROLEUM HYDROCARBONS (SEDIMENT)

BV Labs ID		ZO4099	ZO4100		
Sampling Date		2021/03/31 18:30	2021/03/31 18:00		
COC Number		34561	34561		
	UNITS	Crsuher-SE-SLP	Crusher-SW-SLP	RDL	QC Batch
Ext. Pet. Hydrocarbon					
EPH (C10-C19)	mg/kg	ND	ND	100	A193027
EPH (C19-C32)	mg/kg	ND	ND	100	A193027
LEPH (C10-C19 less PAH)	mg/kg	ND	ND	100	A192792
HEPH (C19-C32 less PAH)	mg/kg	ND	ND	100	A192792
Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	102	106		A193027

RDL = Reportable Detection Limit
ND = Not detected

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GENERAL COMMENTS

Results relate only to the items tested.

BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
A193020	MAE	Method Blank	Moisture	2021/04/05	ND, RDL=0.30		%	
A193020	MAE	RPD	Moisture	2021/04/05	4.2		%	20
A193024	NK3	Matrix Spike [ZO4099-01]	D10-ANTHRACENE (sur.)	2021/04/05		79	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/04/05		76	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/04/05		72	%	50 - 140
			D9-Acridine (sur.)	2021/04/05		60	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/04/05		77	%	50 - 140
			Acenaphthene	2021/04/05		78	%	50 - 140
			Acenaphthylene	2021/04/05		79	%	50 - 140
			Acridine	2021/04/05		58	%	50 - 140
			Anthracene	2021/04/05		71	%	50 - 140
			Benzo(a)anthracene	2021/04/05		81	%	50 - 140
			Benzo(b&j)fluoranthene	2021/04/05		76	%	50 - 140
			Benzo(k)fluoranthene	2021/04/05		78	%	50 - 140
			Benzo(g,h,i)perylene	2021/04/05		72	%	50 - 140
			Benzo(a)pyrene	2021/04/05		78	%	50 - 140
			Chrysene	2021/04/05		78	%	50 - 140
			Dibenz(a,h)anthracene	2021/04/05		83	%	50 - 140
			Fluoranthene	2021/04/05		83	%	50 - 140
			Fluorene	2021/04/05		82	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/04/05		78	%	50 - 140
			1-Methylnaphthalene	2021/04/05		72	%	50 - 140
			2-Methylnaphthalene	2021/04/05		78	%	50 - 140
			Naphthalene	2021/04/05		77	%	50 - 140
			Phenanthrene	2021/04/05		79	%	50 - 140
			Pyrene	2021/04/05		83	%	50 - 140
			Quinoline	2021/04/05		115	%	50 - 140
A193024	NK3	Spiked Blank	D10-ANTHRACENE (sur.)	2021/04/05		84	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/04/05		81	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/04/05		81	%	50 - 140
			D9-Acridine (sur.)	2021/04/05		72	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/04/05		82	%	50 - 140
			Acenaphthene	2021/04/05		85	%	50 - 140
			Acenaphthylene	2021/04/05		86	%	50 - 140
			Acridine	2021/04/05		71	%	50 - 140
			Anthracene	2021/04/05		77	%	50 - 140
			Benzo(a)anthracene	2021/04/05		87	%	50 - 140
			Benzo(b&j)fluoranthene	2021/04/05		84	%	50 - 140
			Benzo(k)fluoranthene	2021/04/05		85	%	50 - 140
			Benzo(g,h,i)perylene	2021/04/05		92	%	50 - 140
			Benzo(a)pyrene	2021/04/05		88	%	50 - 140
			Chrysene	2021/04/05		87	%	50 - 140
			Dibenz(a,h)anthracene	2021/04/05		96	%	50 - 140
			Fluoranthene	2021/04/05		95	%	50 - 140
			Fluorene	2021/04/05		88	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/04/05		93	%	50 - 140
			1-Methylnaphthalene	2021/04/05		78	%	50 - 140
			2-Methylnaphthalene	2021/04/05		84	%	50 - 140
			Naphthalene	2021/04/05		84	%	50 - 140
			Phenanthrene	2021/04/05		85	%	50 - 140
			Pyrene	2021/04/05		94	%	50 - 140
			Quinoline	2021/04/05		116	%	50 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
A193024	NK3	Method Blank	D10-ANTHRACENE (sur.)	2021/04/05		86	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/04/05		81	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/04/05		78	%	50 - 140
			D9-Acridine (sur.)	2021/04/05		65	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/04/05		87	%	50 - 140
			Acenaphthene	2021/04/05	ND, RDL=0.0050		mg/kg	
			Acenaphthylene	2021/04/05	ND, RDL=0.0050		mg/kg	
			Acridine	2021/04/05	ND, RDL=0.050		mg/kg	
			Anthracene	2021/04/05	ND, RDL=0.0040		mg/kg	
			Benzo(a)anthracene	2021/04/05	ND, RDL=0.010		mg/kg	
			Benzo(b&j)fluoranthene	2021/04/05	ND, RDL=0.010		mg/kg	
			Benzo(k)fluoranthene	2021/04/05	ND, RDL=0.010		mg/kg	
			Benzo(g,h,i)perylene	2021/04/05	ND, RDL=0.020		mg/kg	
			Benzo(a)pyrene	2021/04/05	ND, RDL=0.010		mg/kg	
			Chrysene	2021/04/05	ND, RDL=0.010		mg/kg	
			Dibenz(a,h)anthracene	2021/04/05	ND, RDL=0.020		mg/kg	
			Fluoranthene	2021/04/05	ND, RDL=0.010		mg/kg	
			Fluorene	2021/04/05	ND, RDL=0.010		mg/kg	
			Indeno(1,2,3-cd)pyrene	2021/04/05	ND, RDL=0.020		mg/kg	
			1-Methylnaphthalene	2021/04/05	ND, RDL=0.010		mg/kg	
			2-Methylnaphthalene	2021/04/05	ND, RDL=0.010		mg/kg	
			Naphthalene	2021/04/05	ND, RDL=0.010		mg/kg	
			Phenanthrene	2021/04/05	ND, RDL=0.010		mg/kg	
			Pyrene	2021/04/05	ND, RDL=0.010		mg/kg	
			Quinoline	2021/04/05	ND, RDL=0.020		mg/kg	
A193024	NK3	RPD [ZO4099-01]	Acenaphthene	2021/04/05	NC		%	50
			Acenaphthylene	2021/04/05	NC		%	50
			Acridine	2021/04/05	NC		%	50
			Anthracene	2021/04/05	NC		%	50
			Benzo(a)anthracene	2021/04/05	NC		%	50
			Benzo(b&j)fluoranthene	2021/04/05	15		%	50
			Benzo(k)fluoranthene	2021/04/05	NC		%	50
			Benzo(g,h,i)perylene	2021/04/05	2.4		%	50
			Benzo(a)pyrene	2021/04/05	NC		%	50

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Chrysene	2021/04/05	8.4		%	50
			Dibenz(a,h)anthracene	2021/04/05	NC		%	50
			Fluoranthene	2021/04/05	NC		%	50
			Fluorene	2021/04/05	NC		%	50
			Indeno(1,2,3-cd)pyrene	2021/04/05	NC		%	50
			1-Methylnaphthalene	2021/04/05	NC		%	50
			2-Methylnaphthalene	2021/04/05	1.7		%	50
			Naphthalene	2021/04/05	NC		%	50
			Phenanthrene	2021/04/05	13		%	50
			Pyrene	2021/04/05	NC		%	50
			Quinoline	2021/04/05	NC		%	50
A193027	HAZ	Matrix Spike [ZO4099-01]	O-TERPHENYL (sur.)	2021/04/05		101	%	60 - 140
			EPH (C10-C19)	2021/04/05		92	%	60 - 130
			EPH (C19-C32)	2021/04/05		98	%	60 - 130
A193027	HAZ	Spiked Blank	O-TERPHENYL (sur.)	2021/04/05		105	%	60 - 140
			EPH (C10-C19)	2021/04/05		95	%	70 - 130
			EPH (C19-C32)	2021/04/05		99	%	70 - 130
A193027	HAZ	Method Blank	O-TERPHENYL (sur.)	2021/04/05		104	%	60 - 140
			EPH (C10-C19)	2021/04/05	ND, RDL=100		mg/kg	
			EPH (C19-C32)	2021/04/05	ND, RDL=100		mg/kg	
A193027	HAZ	RPD [ZO4099-01]	EPH (C10-C19)	2021/04/05	NC		%	50
			EPH (C19-C32)	2021/04/05	NC		%	50
A193229	EC0	Matrix Spike	Extractable (Water) Methyl Sulfone (sur.)	2021/04/05		92	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/04/05		83	%	60 - 140
			Extractable (Water) Diethylene Glycol	2021/04/05		90	%	60 - 140
			Extractable (Water) Triethylene Glycol	2021/04/05		89	%	60 - 140
			Extractable (Water) Propylene Glycol	2021/04/05		87	%	60 - 140
A193229	EC0	Spiked Blank	Extractable (Water) Methyl Sulfone (sur.)	2021/04/05		95	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/04/05		85	%	60 - 140
			Extractable (Water) Diethylene Glycol	2021/04/05		92	%	60 - 140
			Extractable (Water) Triethylene Glycol	2021/04/05		91	%	60 - 140
			Extractable (Water) Propylene Glycol	2021/04/05		88	%	60 - 140
A193229	EC0	Method Blank	Extractable (Water) Methyl Sulfone (sur.)	2021/04/05		92	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/04/05	ND, RDL=10		mg/kg	
			Extractable (Water) Diethylene Glycol	2021/04/05	ND, RDL=10		mg/kg	
			Extractable (Water) Triethylene Glycol	2021/04/05	ND, RDL=10		mg/kg	
			Extractable (Water) Propylene Glycol	2021/04/05	ND, RDL=10		mg/kg	
A193229	EC0	RPD	Extractable (Water) Ethylene Glycol	2021/04/05	NC		%	50
			Extractable (Water) Diethylene Glycol	2021/04/05	NC		%	50
			Extractable (Water) Triethylene Glycol	2021/04/05	NC		%	50
			Extractable (Water) Propylene Glycol	2021/04/05	NC		%	50
A194226	JNG	Matrix Spike [ZO4099-02]	1,4-Difluorobenzene (sur.)	2021/04/07		107	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/04/07		102	%	60 - 140
			D10-o-Xylene (sur.)	2021/04/07		134	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/04/07		111	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/04/07		119	%	50 - 140
			Benzene	2021/04/07		118	%	50 - 140

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Toluene	2021/04/07		122	%	50 - 140
			Ethylbenzene	2021/04/07		119	%	50 - 140
			m & p-Xylene	2021/04/07		122	%	50 - 140
			o-Xylene	2021/04/07		116	%	50 - 140
			Styrene	2021/04/07		120	%	50 - 140
A194226	JNG	Spiked Blank	1,4-Difluorobenzene (sur.)	2021/04/07		111	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/04/07		110	%	60 - 140
			D10-o-Xylene (sur.)	2021/04/07		126	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/04/07		116	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/04/07		113	%	60 - 130
			Benzene	2021/04/07		111	%	60 - 130
			Toluene	2021/04/07		118	%	60 - 130
			Ethylbenzene	2021/04/07		114	%	60 - 130
			m & p-Xylene	2021/04/07		118	%	60 - 130
			o-Xylene	2021/04/07		114	%	60 - 130
			Styrene	2021/04/07		99	%	60 - 130
A194226	JNG	Method Blank	1,4-Difluorobenzene (sur.)	2021/04/07		116	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/04/07		100	%	60 - 140
			D10-o-Xylene (sur.)	2021/04/07		125	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/04/07		121	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/04/07	ND, RDL=0.040		mg/kg	
			Benzene	2021/04/07	ND, RDL=0.0050		mg/kg	
			Toluene	2021/04/07	ND, RDL=0.050		mg/kg	
			Ethylbenzene	2021/04/07	ND, RDL=0.010		mg/kg	
			m & p-Xylene	2021/04/07	ND, RDL=0.040		mg/kg	
			o-Xylene	2021/04/07	ND, RDL=0.040		mg/kg	
			Styrene	2021/04/07	ND, RDL=0.030		mg/kg	
A194226	JNG	RPD [ZO4099-02]	Methyl-tert-butylether (MTBE)	2021/04/07	NC		%	50
			Benzene	2021/04/07	NC		%	50
			Toluene	2021/04/07	NC		%	50
			Ethylbenzene	2021/04/07	NC		%	50
			m & p-Xylene	2021/04/07	NC		%	50
			o-Xylene	2021/04/07	NC		%	50
			Styrene	2021/04/07	NC		%	50
A194774	JBN	Matrix Spike	Total Aluminum (Al)	2021/04/07		NC	%	75 - 125
			Total Antimony (Sb)	2021/04/07		95	%	75 - 125
			Total Arsenic (As)	2021/04/07		95	%	75 - 125
			Total Barium (Ba)	2021/04/07		95	%	75 - 125
			Total Beryllium (Be)	2021/04/07		90	%	75 - 125
			Total Bismuth (Bi)	2021/04/07		94	%	75 - 125
			Total Boron (B)	2021/04/07		89	%	75 - 125
			Total Cadmium (Cd)	2021/04/07		96	%	75 - 125
			Total Calcium (Ca)	2021/04/07		NC	%	75 - 125
			Total Chromium (Cr)	2021/04/07		96	%	75 - 125
			Total Cobalt (Co)	2021/04/07		93	%	75 - 125
			Total Copper (Cu)	2021/04/07		93	%	75 - 125

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Iron (Fe)	2021/04/07		NC	%	75 - 125
			Total Lead (Pb)	2021/04/07		96	%	75 - 125
			Total Lithium (Li)	2021/04/07		94	%	75 - 125
			Total Magnesium (Mg)	2021/04/07		NC	%	75 - 125
			Total Manganese (Mn)	2021/04/07		NC	%	75 - 125
			Total Mercury (Hg)	2021/04/07		100	%	75 - 125
			Total Molybdenum (Mo)	2021/04/07		96	%	75 - 125
			Total Nickel (Ni)	2021/04/07		94	%	75 - 125
			Total Phosphorus (P)	2021/04/07		88	%	75 - 125
			Total Potassium (K)	2021/04/07		106	%	75 - 125
			Total Selenium (Se)	2021/04/07		98	%	75 - 125
			Total Silver (Ag)	2021/04/07		95	%	75 - 125
			Total Sodium (Na)	2021/04/07		111	%	75 - 125
			Total Strontium (Sr)	2021/04/07		98	%	75 - 125
			Total Thallium (Tl)	2021/04/07		95	%	75 - 125
			Total Tin (Sn)	2021/04/07		108	%	75 - 125
			Total Titanium (Ti)	2021/04/07		NC	%	75 - 125
			Total Tungsten (W)	2021/04/07		89	%	75 - 125
			Total Uranium (U)	2021/04/07		96	%	75 - 125
			Total Vanadium (V)	2021/04/07		96	%	75 - 125
			Total Zinc (Zn)	2021/04/07		94	%	75 - 125
			Total Zirconium (Zr)	2021/04/07		110	%	75 - 125
A194774	JBN	QC Standard	Total Aluminum (Al)	2021/04/07		87	%	70 - 130
			Total Antimony (Sb)	2021/04/07		107	%	70 - 130
			Total Arsenic (As)	2021/04/07		91	%	70 - 130
			Total Barium (Ba)	2021/04/07		96	%	70 - 130
			Total Beryllium (Be)	2021/04/07		85	%	70 - 130
			Total Cadmium (Cd)	2021/04/07		112	%	70 - 130
			Total Calcium (Ca)	2021/04/07		97	%	70 - 130
			Total Chromium (Cr)	2021/04/07		88	%	70 - 130
			Total Cobalt (Co)	2021/04/07		97	%	70 - 130
			Total Copper (Cu)	2021/04/07		106	%	70 - 130
			Total Iron (Fe)	2021/04/07		98	%	70 - 130
			Total Lead (Pb)	2021/04/07		109	%	70 - 130
			Total Lithium (Li)	2021/04/07		92	%	70 - 130
			Total Magnesium (Mg)	2021/04/07		100	%	70 - 130
			Total Manganese (Mn)	2021/04/07		96	%	70 - 130
			Total Mercury (Hg)	2021/04/07		106	%	70 - 130
			Total Molybdenum (Mo)	2021/04/07		112	%	70 - 130
			Total Nickel (Ni)	2021/04/07		105	%	70 - 130
			Total Phosphorus (P)	2021/04/07		96	%	70 - 130
			Total Potassium (K)	2021/04/07		77	%	70 - 130
			Total Silver (Ag)	2021/04/07		87	%	70 - 130
			Total Sodium (Na)	2021/04/07		87	%	70 - 130
			Total Strontium (Sr)	2021/04/07		101	%	70 - 130
			Total Thallium (Tl)	2021/04/07		83	%	70 - 130
			Total Tin (Sn)	2021/04/07		103	%	70 - 130
			Total Uranium (U)	2021/04/07		89	%	70 - 130
			Total Vanadium (V)	2021/04/07		96	%	70 - 130
			Total Zinc (Zn)	2021/04/07		106	%	70 - 130
A194774	JBN	Spiked Blank	Total Aluminum (Al)	2021/04/07		96	%	75 - 125
			Total Antimony (Sb)	2021/04/07		99	%	75 - 125
			Total Arsenic (As)	2021/04/07		97	%	75 - 125

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Barium (Ba)	2021/04/07		93	%	75 - 125
			Total Beryllium (Be)	2021/04/07		93	%	75 - 125
			Total Bismuth (Bi)	2021/04/07		94	%	75 - 125
			Total Boron (B)	2021/04/07		93	%	75 - 125
			Total Cadmium (Cd)	2021/04/07		97	%	75 - 125
			Total Calcium (Ca)	2021/04/07		97	%	75 - 125
			Total Chromium (Cr)	2021/04/07		99	%	75 - 125
			Total Cobalt (Co)	2021/04/07		97	%	75 - 125
			Total Copper (Cu)	2021/04/07		97	%	75 - 125
			Total Iron (Fe)	2021/04/07		100	%	75 - 125
			Total Lead (Pb)	2021/04/07		93	%	75 - 125
			Total Lithium (Li)	2021/04/07		93	%	75 - 125
			Total Magnesium (Mg)	2021/04/07		99	%	75 - 125
			Total Manganese (Mn)	2021/04/07		97	%	75 - 125
			Total Mercury (Hg)	2021/04/07		101	%	75 - 125
			Total Molybdenum (Mo)	2021/04/07		95	%	75 - 125
			Total Nickel (Ni)	2021/04/07		98	%	75 - 125
			Total Phosphorus (P)	2021/04/07		92	%	75 - 125
			Total Potassium (K)	2021/04/07		98	%	75 - 125
			Total Selenium (Se)	2021/04/07		98	%	75 - 125
			Total Silver (Ag)	2021/04/07		95	%	75 - 125
			Total Sodium (Na)	2021/04/07		103	%	75 - 125
			Total Strontium (Sr)	2021/04/07		94	%	75 - 125
			Total Thallium (Tl)	2021/04/07		94	%	75 - 125
			Total Tin (Sn)	2021/04/07		100	%	75 - 125
			Total Titanium (Ti)	2021/04/07		95	%	75 - 125
			Total Tungsten (W)	2021/04/07		101	%	75 - 125
			Total Uranium (U)	2021/04/07		94	%	75 - 125
			Total Vanadium (V)	2021/04/07		98	%	75 - 125
			Total Zinc (Zn)	2021/04/07		98	%	75 - 125
			Total Zirconium (Zr)	2021/04/07		99	%	75 - 125
A194774	JBN	Method Blank	Total Aluminum (Al)	2021/04/07	ND, RDL=100		mg/kg	
			Total Antimony (Sb)	2021/04/07	ND, RDL=0.10		mg/kg	
			Total Arsenic (As)	2021/04/07	ND, RDL=0.20		mg/kg	
			Total Barium (Ba)	2021/04/07	ND, RDL=0.10		mg/kg	
			Total Beryllium (Be)	2021/04/07	ND, RDL=0.20		mg/kg	
			Total Bismuth (Bi)	2021/04/07	ND, RDL=0.10		mg/kg	
			Total Boron (B)	2021/04/07	ND, RDL=1.0		mg/kg	
			Total Cadmium (Cd)	2021/04/07	ND, RDL=0.050		mg/kg	
			Total Calcium (Ca)	2021/04/07	ND, RDL=100		mg/kg	
			Total Chromium (Cr)	2021/04/07	ND, RDL=0.50		mg/kg	
			Total Cobalt (Co)	2021/04/07	ND, RDL=0.10		mg/kg	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Copper (Cu)	2021/04/07	ND, RDL=0.50		mg/kg	
			Total Iron (Fe)	2021/04/07	ND, RDL=100		mg/kg	
			Total Lead (Pb)	2021/04/07	ND, RDL=0.10		mg/kg	
			Total Lithium (Li)	2021/04/07	ND, RDL=0.50		mg/kg	
			Total Magnesium (Mg)	2021/04/07	ND, RDL=100		mg/kg	
			Total Manganese (Mn)	2021/04/07	ND, RDL=0.20		mg/kg	
			Total Mercury (Hg)	2021/04/07	ND, RDL=0.050		mg/kg	
			Total Molybdenum (Mo)	2021/04/07	ND, RDL=0.10		mg/kg	
			Total Nickel (Ni)	2021/04/07	ND, RDL=0.50		mg/kg	
			Total Phosphorus (P)	2021/04/07	ND, RDL=10		mg/kg	
			Total Potassium (K)	2021/04/07	ND, RDL=100		mg/kg	
			Total Selenium (Se)	2021/04/07	ND, RDL=0.50		mg/kg	
			Total Silver (Ag)	2021/04/07	ND, RDL=0.050		mg/kg	
			Total Sodium (Na)	2021/04/07	ND, RDL=100		mg/kg	
			Total Strontium (Sr)	2021/04/07	ND, RDL=0.10		mg/kg	
			Total Thallium (Tl)	2021/04/07	ND, RDL=0.050		mg/kg	
			Total Tin (Sn)	2021/04/07	ND, RDL=0.10		mg/kg	
			Total Titanium (Ti)	2021/04/07	ND, RDL=1.0		mg/kg	
			Total Tungsten (W)	2021/04/07	ND, RDL=0.50		mg/kg	
			Total Uranium (U)	2021/04/07	ND, RDL=0.050		mg/kg	
			Total Vanadium (V)	2021/04/07	ND, RDL=1.0		mg/kg	
			Total Zinc (Zn)	2021/04/07	ND, RDL=1.0		mg/kg	
			Total Zirconium (Zr)	2021/04/07	ND, RDL=0.50		mg/kg	
A194774	JBN	RPD	Total Aluminum (Al)	2021/04/07	1.7		%	40
			Total Antimony (Sb)	2021/04/07	7.7		%	30
			Total Arsenic (As)	2021/04/07	1.1		%	30
			Total Barium (Ba)	2021/04/07	1.2		%	40
			Total Beryllium (Be)	2021/04/07	NC		%	30
			Total Bismuth (Bi)	2021/04/07	NC		%	30
			Total Boron (B)	2021/04/07	0.063		%	30
			Total Cadmium (Cd)	2021/04/07	0.82		%	30

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Calcium (Ca)	2021/04/07	0.97		%	30
			Total Chromium (Cr)	2021/04/07	2.5		%	30
			Total Cobalt (Co)	2021/04/07	3.3		%	30
			Total Copper (Cu)	2021/04/07	2.1		%	30
			Total Iron (Fe)	2021/04/07	2.7		%	30
			Total Lead (Pb)	2021/04/07	5.0		%	40
			Total Lithium (Li)	2021/04/07	1.0		%	30
			Total Magnesium (Mg)	2021/04/07	3.9		%	30
			Total Manganese (Mn)	2021/04/07	5.0		%	30
			Total Mercury (Hg)	2021/04/07	NC		%	40
			Total Molybdenum (Mo)	2021/04/07	4.1		%	40
			Total Nickel (Ni)	2021/04/07	1.1		%	30
			Total Phosphorus (P)	2021/04/07	0.73		%	30
			Total Potassium (K)	2021/04/07	1.9		%	40
			Total Selenium (Se)	2021/04/07	NC		%	30
			Total Silver (Ag)	2021/04/07	NC		%	40
			Total Sodium (Na)	2021/04/07	4.4		%	40
			Total Strontium (Sr)	2021/04/07	2.9		%	40
			Total Thallium (Tl)	2021/04/07	8.1		%	30
			Total Tin (Sn)	2021/04/07	4.3		%	40
			Total Titanium (Ti)	2021/04/07	2.8		%	40
			Total Tungsten (W)	2021/04/07	NC		%	40
			Total Uranium (U)	2021/04/07	2.9		%	30
			Total Vanadium (V)	2021/04/07	1.9		%	30
			Total Zinc (Zn)	2021/04/07	3.8		%	30
			Total Zirconium (Zr)	2021/04/07	4.0		%	40
A194780	JGD	Spiked Blank	Soluble (2:1) pH	2021/04/07		100	%	97 - 103
A194780	JGD	RPD	Soluble (2:1) pH	2021/04/07	0.29		%	N/A
A195015	LA5	Method Blank	Initial pH of Sample	2021/04/07	4.91		pH	
			Final pH of Leachate	2021/04/07	4.94		pH	
			pH of Leaching Fluid	2021/04/07	4.91		pH	
A195015	LA5	RPD [ZO4099-01]	Initial pH of Sample	2021/04/07	0.96		%	N/A
			pH after HCl	2021/04/07	3.1		%	N/A
			Final pH of Leachate	2021/04/07	0.63		%	N/A
			pH of Leaching Fluid	2021/04/07	0		%	N/A
A195358	JBN	Matrix Spike [ZO4099-01]	Leachate Antimony (Sb)	2021/04/07		103	%	75 - 125
			Leachate Arsenic (As)	2021/04/07		103	%	75 - 125
			Leachate Barium (Ba)	2021/04/07		94	%	75 - 125
			Leachate Beryllium (Be)	2021/04/07		97	%	75 - 125
			Leachate Boron (B)	2021/04/07		98	%	75 - 125
			Leachate Cadmium (Cd)	2021/04/07		101	%	75 - 125
			Leachate Chromium (Cr)	2021/04/07		100	%	75 - 125
			Leachate Cobalt (Co)	2021/04/07		99	%	75 - 125
			Leachate Copper (Cu)	2021/04/07		97	%	75 - 125
			Leachate Iron (Fe)	2021/04/07		100	%	75 - 125
			Leachate Lead (Pb)	2021/04/07		97	%	75 - 125
			Leachate Mercury (Hg)	2021/04/07		103	%	75 - 125
			Leachate Molybdenum (Mo)	2021/04/07		104	%	75 - 125
			Leachate Nickel (Ni)	2021/04/07		96	%	75 - 125
			Leachate Selenium (Se)	2021/04/07		102	%	75 - 125
			Leachate Silver (Ag)	2021/04/07		99	%	75 - 125
			Leachate Thallium (Tl)	2021/04/07		97	%	75 - 125
			Leachate Uranium (U)	2021/04/07		101	%	75 - 125

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachate Vanadium (V)	2021/04/07		103	%	75 - 125
			Leachate Zinc (Zn)	2021/04/07		100	%	75 - 125
			Leachate Zirconium (Zr)	2021/04/07		108	%	75 - 125
A195358	JBN	Spiked Blank	Leachate Antimony (Sb)	2021/04/07		105	%	75 - 125
			Leachate Arsenic (As)	2021/04/07		106	%	75 - 125
			Leachate Barium (Ba)	2021/04/07		100	%	75 - 125
			Leachate Beryllium (Be)	2021/04/07		99	%	75 - 125
			Leachate Boron (B)	2021/04/07		98	%	75 - 125
			Leachate Cadmium (Cd)	2021/04/07		102	%	75 - 125
			Leachate Chromium (Cr)	2021/04/07		104	%	75 - 125
			Leachate Cobalt (Co)	2021/04/07		101	%	75 - 125
			Leachate Copper (Cu)	2021/04/07		100	%	75 - 125
			Leachate Iron (Fe)	2021/04/07		102	%	75 - 125
			Leachate Lead (Pb)	2021/04/07		101	%	75 - 125
			Leachate Mercury (Hg)	2021/04/07		105	%	75 - 125
			Leachate Molybdenum (Mo)	2021/04/07		103	%	75 - 125
			Leachate Nickel (Ni)	2021/04/07		100	%	75 - 125
			Leachate Selenium (Se)	2021/04/07		106	%	75 - 125
			Leachate Silver (Ag)	2021/04/07		101	%	75 - 125
			Leachate Thallium (Tl)	2021/04/07		100	%	75 - 125
			Leachate Uranium (U)	2021/04/07		102	%	75 - 125
			Leachate Vanadium (V)	2021/04/07		105	%	75 - 125
			Leachate Zinc (Zn)	2021/04/07		102	%	75 - 125
			Leachate Zirconium (Zr)	2021/04/07		109	%	75 - 125
A195358	JBN	Method Blank	Leachate Antimony (Sb)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Arsenic (As)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Barium (Ba)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Beryllium (Be)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Boron (B)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Cadmium (Cd)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Chromium (Cr)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Cobalt (Co)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Copper (Cu)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Iron (Fe)	2021/04/07	ND, RDL=0.50		mg/L	
			Leachate Lead (Pb)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Mercury (Hg)	2021/04/07	ND, RDL=0.0020		mg/L	
			Leachate Molybdenum (Mo)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Nickel (Ni)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Selenium (Se)	2021/04/07	ND, RDL=0.10		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachate Silver (Ag)	2021/04/07	ND, RDL=0.010		mg/L	
			Leachate Thallium (Tl)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Uranium (U)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Vanadium (V)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Zinc (Zn)	2021/04/07	ND, RDL=0.10		mg/L	
			Leachate Zirconium (Zr)	2021/04/07	ND, RDL=0.10		mg/L	
A195358	JBN	RPD [ZO4099-01]	Leachate Antimony (Sb)	2021/04/07	NC		%	35
			Leachate Arsenic (As)	2021/04/07	NC		%	35
			Leachate Barium (Ba)	2021/04/07	11		%	35
			Leachate Beryllium (Be)	2021/04/07	NC		%	35
			Leachate Boron (B)	2021/04/07	NC		%	35
			Leachate Cadmium (Cd)	2021/04/07	NC		%	35
			Leachate Chromium (Cr)	2021/04/07	NC		%	35
			Leachate Cobalt (Co)	2021/04/07	NC		%	35
			Leachate Copper (Cu)	2021/04/07	NC		%	35
			Leachate Iron (Fe)	2021/04/07	NC		%	35
			Leachate Lead (Pb)	2021/04/07	NC		%	35
			Leachate Mercury (Hg)	2021/04/07	NC		%	35
			Leachate Molybdenum (Mo)	2021/04/07	NC		%	35
			Leachate Nickel (Ni)	2021/04/07	NC		%	35
			Leachate Selenium (Se)	2021/04/07	NC		%	35
			Leachate Silver (Ag)	2021/04/07	NC		%	35
			Leachate Thallium (Tl)	2021/04/07	NC		%	35
			Leachate Uranium (U)	2021/04/07	NC		%	35
			Leachate Vanadium (V)	2021/04/07	NC		%	35
			Leachate Zinc (Zn)	2021/04/07	NC		%	35
			Leachate Zirconium (Zr)	2021/04/07	NC		%	35
A195906	MPE	Matrix Spike [ZO4099-01]	Total Oil and grease	2021/04/08		94	%	65 - 135
A195906	MPE	Spiked Blank	Total Oil and grease	2021/04/08		95	%	65 - 135
A195906	MPE	Method Blank	Total Oil and grease	2021/04/08	ND, RDL=100		ug/g	
A195906	MPE	RPD [ZO4099-01]	Total Oil and grease	2021/04/08	NC		%	30
A198074	PL	QC Standard	Total Carbon	2021/04/12		110	%	75 - 125
			Total Sulphur (S)	2021/04/12		96	%	75 - 125
A198074	PL	Spiked Blank	Total Carbon	2021/04/12		103	%	75 - 125
			Total Sulphur (S)	2021/04/12		95	%	75 - 125
A198074	PL	Method Blank	Total Carbon	2021/04/12	ND, RDL=0.050		%	
			Total Sulphur (S)	2021/04/12	ND, RDL=0.060		%	
A198074	PL	RPD [ZO4099-01]	Total Carbon	2021/04/12	7.8		%	30

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BV Labs Job #: C121118
Report Date: 2021/04/13

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Sulphur (S)	2021/04/12	17		%	30

N/A = Not Applicable

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

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

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

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

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

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

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

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

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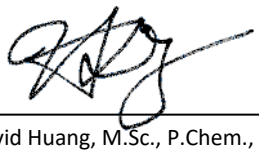
BV Labs Job #: C121118
Report Date: 2021/04/13

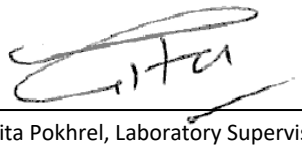
Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: LB

VALIDATION SIGNATURE PAGE

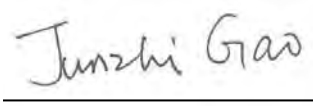
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



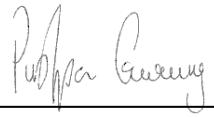
David Huang, M.Sc., P.Chem., QP, Scientific Services Manager



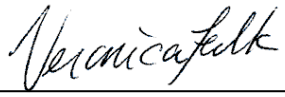
Gita Pokhrel, Laboratory Supervisor



Janet Gao, B.Sc., QP, Supervisor, Organics



Pushpa Gurung, Lab Manager



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

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Custody Tracking Form

W34561

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain Of Custody).
Please ensure your form has a barcode or a BV Labs eCOC confirmation number in the top right hand side. This number links your electronic submission to your samples.

First Sample: Crsuher-SE-SLP
Last Sample: Crusher-SW-SLP
Sample Count: 2

Relinquished By				Received By			
Print: Lukas Bennetto	Sign:	Date	2021/04/01	Print: D.malmloff	Sign: D.malmloff	Date	2021/04/01
		Time (24 HR)	14:00			Time (24 HR)	14:00
Print:	Sign:	Date	YYYY/MM/DD	Print: Alicia Lin	Sign: Ali	Date	~~2021/04/01~~
		Time (24 HR)	HH:MM			Time (24 HR)	06:30
Print:	Sign:	Date	YYYY/MM/DD	Print:	Sign:	Date	2021/04/02
		Time (24 HR)	HH:MM			Time (24 HR)	AM 2021/04/02

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvlabs.com

Submission Triage Information

Sampled By: LB

# of Coolers/Pkgs: 1

Rush ☐ Immediate Test ☐ Food Residue ☐
Micro ☐ Food Chemistry ☐

*** LAB USE ONLY ***

Received At: FSJ

Labeled By:

Verified By:

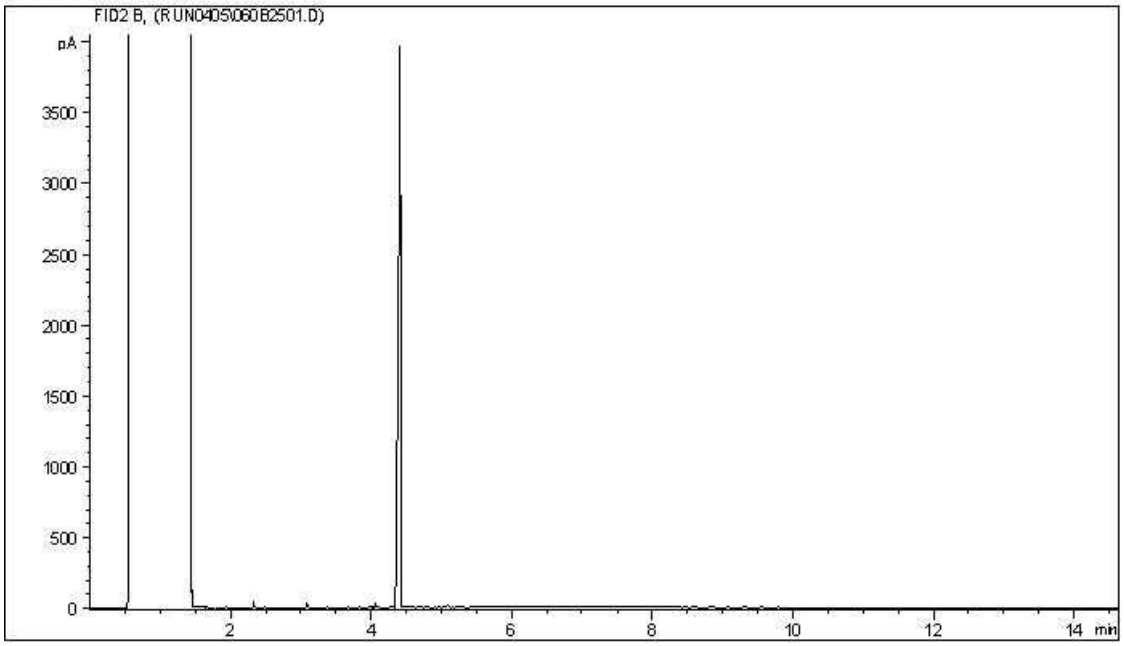
Comments: C121118

Custody Seal		Cooling Media	Temperature °C		
Present (Y/N)	Intact (Y/N)	Present (Y/N)	1	2	3
NO		Yes	10	10	10
Y	Y	Y	7	6	9

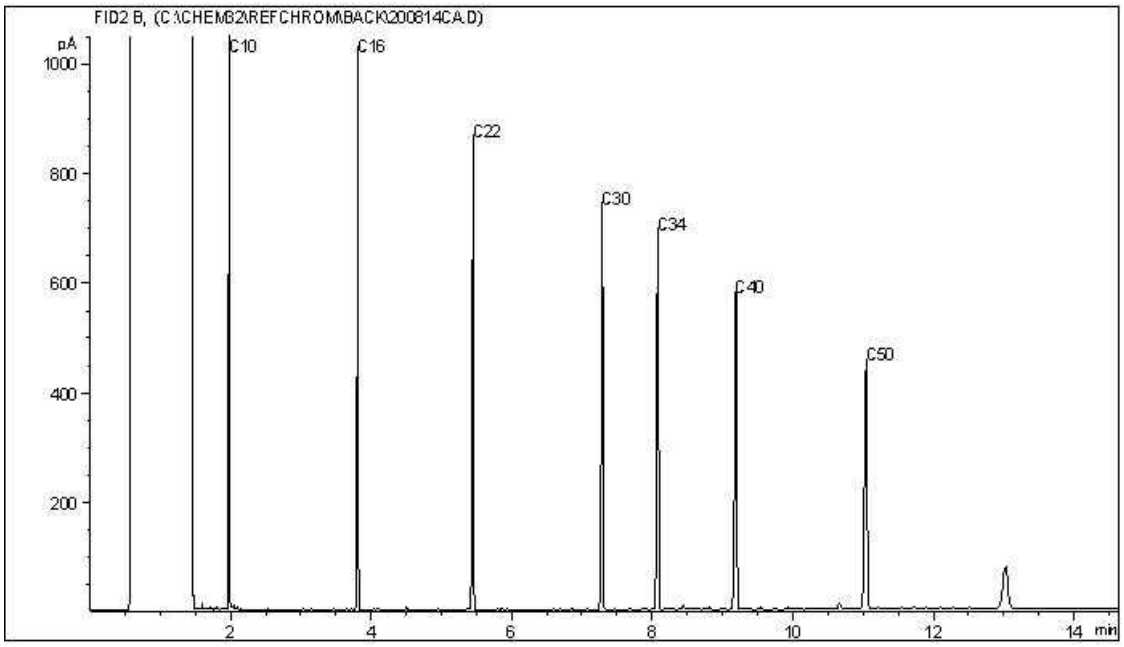
Page 1 of 1

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC7



Carbon Range Distribution - Reference Chromatogram



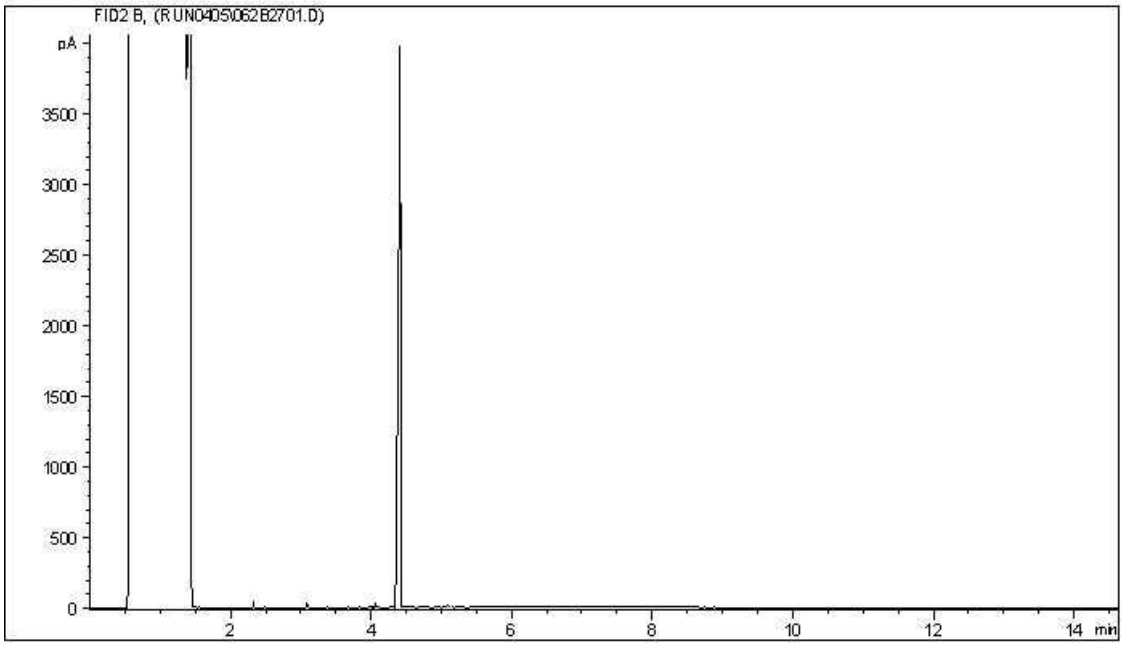
TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

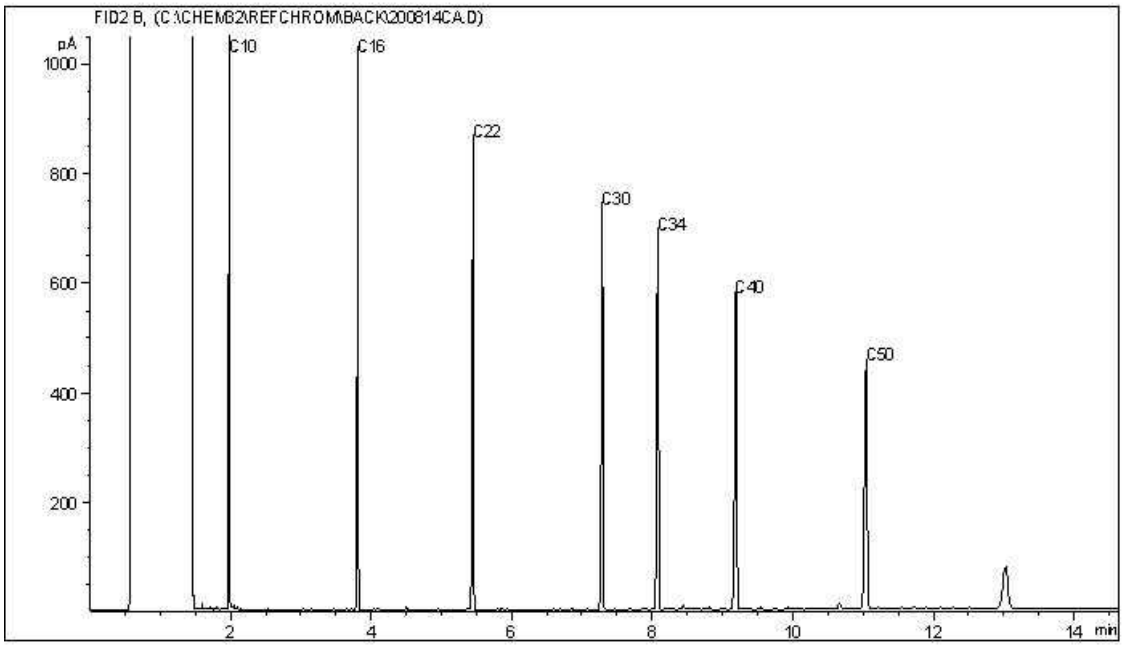
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC7



Carbon Range Distribution - Reference Chromatogram



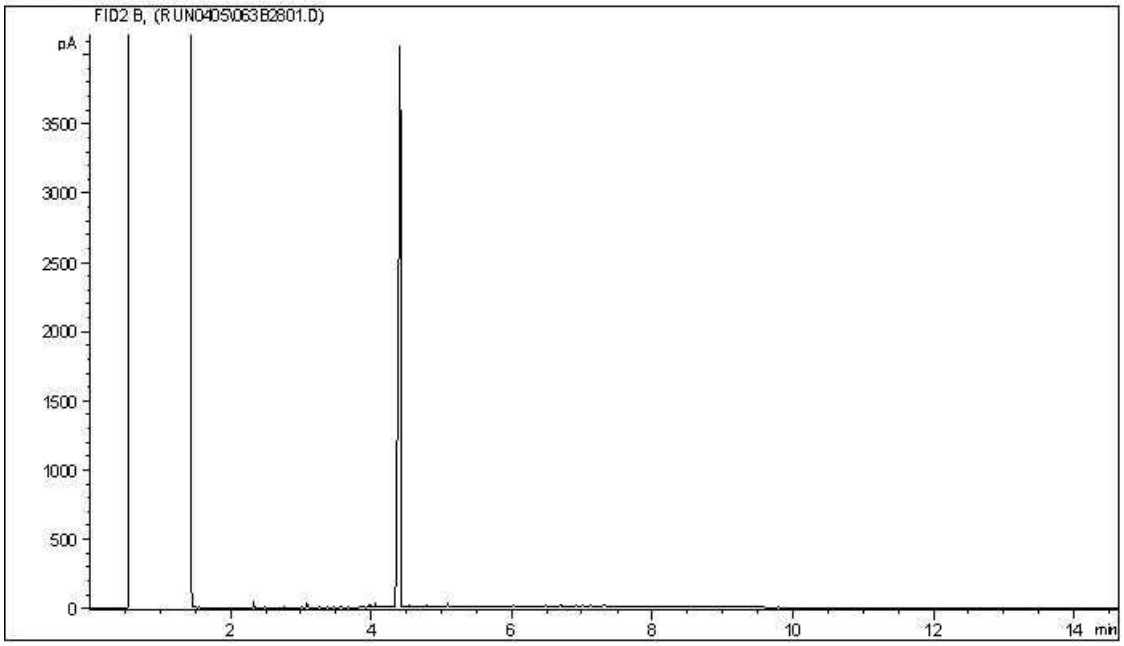
TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

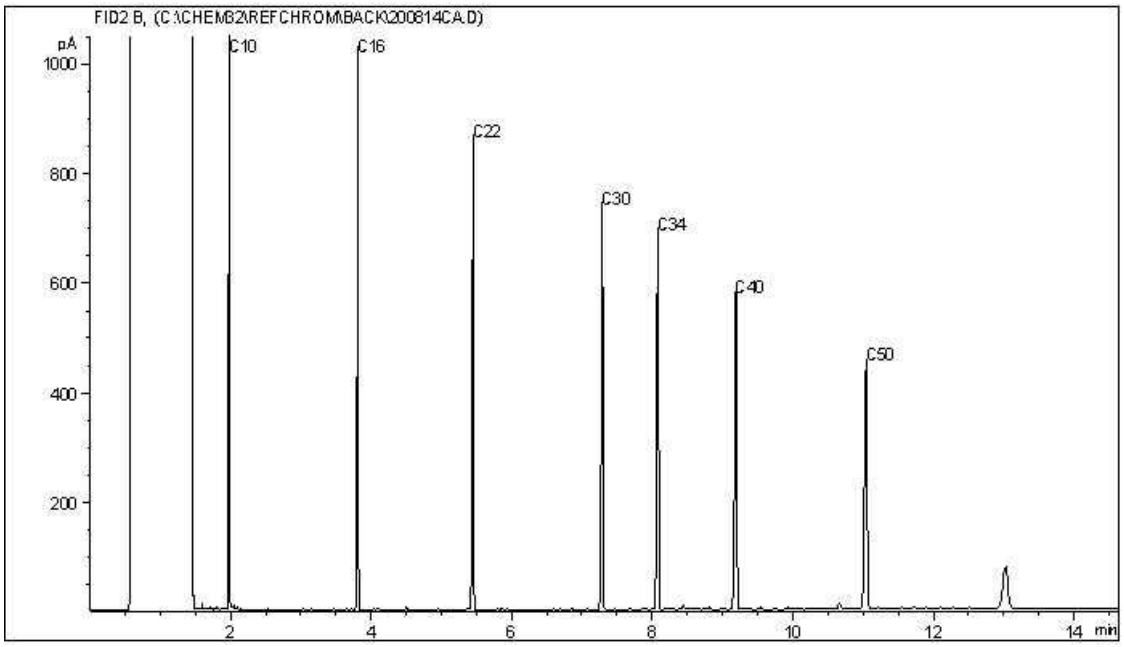
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC7



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

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Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

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

Your P.O. #: 48179
Site Location: SITE C
Your C.O.C. #: 37063, 37056

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/06/17
Report #: R3034663
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C138547
Received: 2021/06/04, 08:00

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Carbon, Nitrogen, Sulphur - Combustion (1)	1	N/A	2021/06/15	CAL SOP-00263	AN-A-030609-E-01 m
BC Hydrocarbons in Soil by GC/FID (1)	1	2021/06/10	2021/06/10	CAL SOP-00239	BCMOE EPH S 12/16
EPH less PAH in Soil By GC/FID (1)	1	N/A	2021/06/11		Auto Calc
Elements by ICPMS (total) (1)	1	2021/06/11	2021/06/12	CAL SOP-00265	EPA 6020 m
ICPMS Metals on TCLP Leachate (1, 2)	1	2021/06/10	2021/06/11	AB SOP-00043	EPA 6020b R2 m
Moisture (1)	1	N/A	2021/06/10	AB SOP-00002	CCME PHC-CWS m
PAH in Soil by GC/MS (1)	1	2021/06/10	2021/06/10	AB SOP-00003 AB SOP-00036	EPA 3540C/8270E m
Total LMW, HMW, Total PAH Calc (1)	1	N/A	2021/06/11		Auto Calc
TCLP pH Measurements (1)	1	2021/06/10	2021/06/11	AB SOP-00006	SM 23 4500 H+B m
pH (2:1 DI Water Extract) (1)	1	2021/06/11	2021/06/11	AB SOP-00033 / AB SOP-00006	SM 23 4500 H+B m
Total Oil and Grease	1	2021/06/16	2021/06/17	BBY8SOP-00006	BCMOE BCLM Mar 1997
Volatile HC-BTEX (1)	1	2021/06/09	2021/06/11		Auto Calc
BTEX/MTBE/Styrene/VPH in Soil GC/MS/FID (1)	1	N/A	2021/06/10	CAL SOP-00240	BC MELP VH 2014

Remarks:

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

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

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

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

Your P.O. #: 48179
Site Location: SITE C
Your C.O.C. #: 37063, 37056

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/06/17
Report #: R3034663
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C138547
Received: 2021/06/04, 08:00

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary Environmental
(2) Samples were extracted as per EPA 1311 unless otherwise noted in the report.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Debbie Nordbruget, Key Account Specialist
Email: Debra.NORDBRUGET@bureauveritas.com
Phone# (250)385-6112
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

RESULTS OF CHEMICAL ANALYSES OF SOIL

BV Labs ID		ZX7156		
Sampling Date		2021/06/03 13:00		
COC Number		37056		
	UNITS	2021-06-MWTF-SLP	RDL	QC Batch
Misc. Inorganics				
Total Carbon	%	7.6	0.050	A255229
Leachable Initial pH of Sample	pH	9.74	N/A	A251409
Leachable pH after HCl	pH	6.16	N/A	A251409
Total Sulphur (S)	%	0.41	0.060	A255229
Leachable Final pH of Leachate	pH	6.17	N/A	A251409
OIL & GREASE				
Total Oil and grease	ug/g	100	100	A256855
Physical Properties				
Soluble (2:1) pH	pH	9.16	N/A	A252721

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

PHYSICAL TESTING (SOIL)

BV Labs ID		ZX7156		
Sampling Date		2021/06/03 13:00		
COC Number		37056		
	UNITS	2021-06-MWTF-SLP	RDL	QC Batch
Physical Properties				
Moisture	%	49	0.30	A251373
RDL = Reportable Detection Limit				

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

BV Labs ID		ZX7156		
Sampling Date		2021/06/03 13:00		
COC Number		37056		
	UNITS	2021-06-MWTF-SLP	RDL	QC Batch
Polycyclic Aromatics				
Acenaphthene	mg/kg	ND	0.0050	A249835
Acenaphthylene	mg/kg	ND	0.0050	A249835
Anthracene	mg/kg	ND	0.0040	A249835
Benzo(a)anthracene	mg/kg	ND	0.010	A249835
Benzo(b&j)fluoranthene	mg/kg	ND	0.010	A249835
Benzo(k)fluoranthene	mg/kg	ND	0.010	A249835
Benzo(g,h,i)perylene	mg/kg	0.049	0.020	A249835
Benzo(a)pyrene	mg/kg	ND	0.010	A249835
Chrysene	mg/kg	ND	0.010	A249835
Dibenz(a,h)anthracene	mg/kg	ND	0.020	A249835
Fluoranthene	mg/kg	ND	0.010	A249835
Fluorene	mg/kg	0.023	0.010	A249835
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.020	A249835
2-Methylnaphthalene	mg/kg	0.25	0.010	A249835
Naphthalene	mg/kg	0.17	0.010	A249835
Phenanthrene	mg/kg	0.083	0.010	A249835
Pyrene	mg/kg	0.029	0.010	A249835
Low Molecular Weight PAH`s	mg/kg	0.52	0.050	A249532
High Molecular Weight PAH`s	mg/kg	0.078	0.020	A249532
Total PAH	mg/kg	0.60	0.050	A249532
Surrogate Recovery (%)				
D10-ANTHRACENE (sur.)	%	98		A249835
D8-ACENAPHTHYLENE (sur.)	%	94		A249835
D8-NAPHTHALENE (sur.)	%	91		A249835
D9-Acridine (sur.)	%	66		A249835
TERPHENYL-D14 (sur.)	%	85		A249835

RDL = Reportable Detection Limit
ND = Not detected

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BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		ZX7156		
Sampling Date		2021/06/03 13:00		
COC Number		37056		
	UNITS	2021-06-MWTF-SLP	RDL	QC Batch
Elements				
Leachable Antimony (Sb)	mg/L	ND	1.0	A252031
Leachable Arsenic (As)	mg/L	ND	0.50	A252031
Leachable Barium (Ba)	mg/L	1.8	1.0	A252031
Leachable Beryllium (Be)	mg/L	ND	0.50	A252031
Leachable Boron (B)	mg/L	ND	1.0	A252031
Leachable Cadmium (Cd)	mg/L	ND	0.10	A252031
Leachable Chromium (Cr)	mg/L	ND	0.50	A252031
Leachable Cobalt (Co)	mg/L	ND	1.0	A252031
Leachable Copper (Cu)	mg/L	ND	1.0	A252031
Leachable Iron (Fe)	mg/L	1.3	1.0	A252031
Leachable Lead (Pb)	mg/L	ND	0.50	A252031
Leachable Mercury (Hg)	mg/L	ND	0.020	A252031
Leachable Nickel (Ni)	mg/L	ND	0.50	A252031
Leachable Selenium (Se)	mg/L	ND	0.10	A252031
Leachable Silver (Ag)	mg/L	ND	0.50	A252031
Leachable Thallium (Tl)	mg/L	ND	0.50	A252031
Leachable Uranium (U)	mg/L	ND	0.20	A252031
Leachable Vanadium (V)	mg/L	ND	1.0	A252031
Leachable Zinc (Zn)	mg/L	ND	1.0	A252031
Leachable Zirconium (Zr)	mg/L	ND	1.0	A252031
Total Metals by ICPMS				
Total Aluminum (Al)	mg/kg	3270	100	A252252
Total Antimony (Sb)	mg/kg	0.47	0.10	A252252
Total Arsenic (As)	mg/kg	3.12	0.20	A252252
Total Barium (Ba)	mg/kg	391	0.10	A252252
Total Beryllium (Be)	mg/kg	0.22	0.20	A252252
Total Bismuth (Bi)	mg/kg	ND	0.10	A252252
Total Boron (B)	mg/kg	9.7	1.0	A252252
Total Cadmium (Cd)	mg/kg	0.254	0.050	A252252
Total Calcium (Ca)	mg/kg	175000	100	A252252
Total Chromium (Cr)	mg/kg	5.97	0.50	A252252

RDL = Reportable Detection Limit
ND = Not detected

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BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		ZX7156		
Sampling Date		2021/06/03 13:00		
COC Number		37056		
	UNITS	2021-06-MWTF-SLP	RDL	QC Batch
Total Cobalt (Co)	mg/kg	8.25	0.10	A252252
Total Copper (Cu)	mg/kg	12.3	0.50	A252252
Total Iron (Fe)	mg/kg	8790	100	A252252
Total Lead (Pb)	mg/kg	3.75	0.10	A252252
Total Lithium (Li)	mg/kg	7.11	0.50	A252252
Total Magnesium (Mg)	mg/kg	4280	100	A252252
Total Manganese (Mn)	mg/kg	228	0.20	A252252
Total Mercury (Hg)	mg/kg	ND	0.050	A252252
Total Molybdenum (Mo)	mg/kg	0.67	0.10	A252252
Total Nickel (Ni)	mg/kg	24.5	0.50	A252252
Total Phosphorus (P)	mg/kg	205	10	A252252
Total Potassium (K)	mg/kg	754	100	A252252
Total Selenium (Se)	mg/kg	ND	0.50	A252252
Total Silver (Ag)	mg/kg	0.081	0.050	A252252
Total Sodium (Na)	mg/kg	1070	100	A252252
Total Strontium (Sr)	mg/kg	730	0.10	A252252
Total Thallium (Tl)	mg/kg	0.058	0.050	A252252
Total Tin (Sn)	mg/kg	1.33	0.10	A252252
Total Titanium (Ti)	mg/kg	23.1	1.0	A252252
Total Tungsten (W)	mg/kg	ND	0.50	A252252
Total Uranium (U)	mg/kg	1.47	0.050	A252252
Total Vanadium (V)	mg/kg	12.3	1.0	A252252
Total Zinc (Zn)	mg/kg	52.1	1.0	A252252
Total Zirconium (Zr)	mg/kg	2.08	0.50	A252252

RDL = Reportable Detection Limit
ND = Not detected

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

BTEX BY GC-MS (SOIL)

BV Labs ID		ZX7156		
Sampling Date		2021/06/03 13:00		
COC Number		37056		
	UNITS	2021-06-MWTF-SLP	RDL	QC Batch
Volatiles				
Xylenes (Total)	mg/kg	0.31	0.12	A249538
VH C6-C10	mg/kg	ND	8.6	A249538
VPH (VH6 to 10 - BTEX)	mg/kg	ND	8.6	A249538
Field Preserved Volatiles				
Methyl-tert-butylether (MTBE)	mg/kg	ND (1)	0.040	A251489
Benzene	mg/kg	0.041 (2)	0.010	A251489
Toluene	mg/kg	0.13 (2)	0.10	A251489
Ethylbenzene	mg/kg	0.10 (2)	0.021	A251489
m & p-Xylene	mg/kg	0.19 (2)	0.083	A251489
o-Xylene	mg/kg	0.12 (2)	0.083	A251489
Styrene	mg/kg	ND (2)	0.062	A251489
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	94		A251489
4-Bromofluorobenzene (sur.)	%	108		A251489
D10-o-Xylene (sur.)	%	121		A251489
D4-1,2-Dichloroethane (sur.)	%	97		A251489

RDL = Reportable Detection Limit
ND = Not detected
(1) Detection limit reported based on MDL and sample weight used for analysis.

(2) Detection limits raised based on sample weight used for analysis.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

TOTAL PETROLEUM HYDROCARBONS (SOIL)

BV Labs ID		ZX7156		
Sampling Date		2021/06/03 13:00		
COC Number		37056		
	UNITS	2021-06-MWTF-SLP	RDL	QC Batch
Ext. Pet. Hydrocarbon				
EPH (C10-C19)	mg/kg	ND	100	A249847
EPH (C19-C32)	mg/kg	120	100	A249847
LEPH (C10-C19 less PAH)	mg/kg	ND	100	A249528
HEPH (C19-C32 less PAH)	mg/kg	120	100	A249528
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	88		A249847

RDL = Reportable Detection Limit
ND = Not detected

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

GENERAL COMMENTS

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

Package 1	3.3°C
Package 2	3.7°C

Results relate only to the items tested.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
A249835	JU2	Matrix Spike	D10-ANTHRACENE (sur.)	2021/06/09		101	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/06/09		95	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/06/09		89	%	50 - 140
			D9-Acridine (sur.)	2021/06/09		69	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/06/09		68	%	50 - 140
			Acenaphthene	2021/06/09		93	%	50 - 140
			Acenaphthylene	2021/06/09		95	%	50 - 140
			Anthracene	2021/06/09		82	%	50 - 140
			Benzo(a)anthracene	2021/06/09		80	%	50 - 140
			Benzo(b&j)fluoranthene	2021/06/09		75	%	50 - 140
			Benzo(k)fluoranthene	2021/06/09		79	%	50 - 140
			Benzo(g,h,i)perylene	2021/06/09		68	%	50 - 140
			Benzo(a)pyrene	2021/06/09		87	%	50 - 140
			Chrysene	2021/06/09		76	%	50 - 140
			Dibenz(a,h)anthracene	2021/06/09		74	%	50 - 140
			Fluoranthene	2021/06/09		93	%	50 - 140
			Fluorene	2021/06/09		97	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/06/09		79	%	50 - 140
			2-Methylnaphthalene	2021/06/09		89	%	50 - 140
			Naphthalene	2021/06/09		88	%	50 - 140
			Phenanthrene	2021/06/09		89	%	50 - 140
			Pyrene	2021/06/09		94	%	50 - 140
A249835	JU2	Spiked Blank	D10-ANTHRACENE (sur.)	2021/06/09		98	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/06/09		94	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/06/09		87	%	50 - 140
			D9-Acridine (sur.)	2021/06/09		69	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/06/09		69	%	50 - 140
			Acenaphthene	2021/06/09		95	%	50 - 140
			Acenaphthylene	2021/06/09		93	%	50 - 140
			Anthracene	2021/06/09		82	%	50 - 140
			Benzo(a)anthracene	2021/06/09		82	%	50 - 140
			Benzo(b&j)fluoranthene	2021/06/09		80	%	50 - 140
			Benzo(k)fluoranthene	2021/06/09		81	%	50 - 140
			Benzo(g,h,i)perylene	2021/06/09		81	%	50 - 140
			Benzo(a)pyrene	2021/06/09		92	%	50 - 140
			Chrysene	2021/06/09		79	%	50 - 140
			Dibenz(a,h)anthracene	2021/06/09		79	%	50 - 140
			Fluoranthene	2021/06/09		92	%	50 - 140
			Fluorene	2021/06/09		98	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/06/09		85	%	50 - 140
			2-Methylnaphthalene	2021/06/09		88	%	50 - 140
			Naphthalene	2021/06/09		88	%	50 - 140
			Phenanthrene	2021/06/09		88	%	50 - 140
			Pyrene	2021/06/09		92	%	50 - 140
A249835	JU2	Method Blank	D10-ANTHRACENE (sur.)	2021/06/09		101	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/06/09		93	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/06/09		89	%	50 - 140
			D9-Acridine (sur.)	2021/06/09		67	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/06/09		72	%	50 - 140
			Acenaphthene	2021/06/09	ND, RDL=0.0050		mg/kg	
			Acenaphthylene	2021/06/09	ND, RDL=0.0050		mg/kg	

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Anthracene	2021/06/09	ND, RDL=0.0040		mg/kg	
			Benzo(a)anthracene	2021/06/09	ND, RDL=0.010		mg/kg	
			Benzo(b&j)fluoranthene	2021/06/09	ND, RDL=0.010		mg/kg	
			Benzo(k)fluoranthene	2021/06/09	ND, RDL=0.010		mg/kg	
			Benzo(g,h,i)perylene	2021/06/09	ND, RDL=0.020		mg/kg	
			Benzo(a)pyrene	2021/06/09	ND, RDL=0.010		mg/kg	
			Chrysene	2021/06/09	ND, RDL=0.010		mg/kg	
			Dibenz(a,h)anthracene	2021/06/09	ND, RDL=0.020		mg/kg	
			Fluoranthene	2021/06/09	ND, RDL=0.010		mg/kg	
			Fluorene	2021/06/09	ND, RDL=0.010		mg/kg	
			Indeno(1,2,3-cd)pyrene	2021/06/09	ND, RDL=0.020		mg/kg	
			2-Methylnaphthalene	2021/06/09	ND, RDL=0.010		mg/kg	
			Naphthalene	2021/06/09	ND, RDL=0.010		mg/kg	
			Phenanthrene	2021/06/09	ND, RDL=0.010		mg/kg	
			Pyrene	2021/06/09	ND, RDL=0.010		mg/kg	
A249835	JU2	RPD	Acenaphthene	2021/06/09	NC		%	50
			Acenaphthylene	2021/06/09	NC		%	50
			Anthracene	2021/06/09	NC		%	50
			Benzo(a)anthracene	2021/06/09	NC		%	50
			Benzo(b&j)fluoranthene	2021/06/09	8.6		%	50
			Benzo(k)fluoranthene	2021/06/09	NC		%	50
			Benzo(g,h,i)perylene	2021/06/09	7.1		%	50
			Benzo(a)pyrene	2021/06/09	NC		%	50
			Chrysene	2021/06/09	NC		%	50
			Dibenz(a,h)anthracene	2021/06/09	NC		%	50
			Fluoranthene	2021/06/09	NC		%	50
			Fluorene	2021/06/09	NC		%	50
			Indeno(1,2,3-cd)pyrene	2021/06/09	NC		%	50
			2-Methylnaphthalene	2021/06/09	NC		%	50
			Naphthalene	2021/06/09	NC		%	50
			Phenanthrene	2021/06/09	NC		%	50
			Pyrene	2021/06/09	NC		%	50
A249847	MHF	Matrix Spike	O-TERPHENYL (sur.)	2021/06/09		94	%	60 - 140
			EPH (C10-C19)	2021/06/09		92	%	60 - 130
			EPH (C19-C32)	2021/06/09		92	%	60 - 130
A249847	MHF	Spiked Blank	O-TERPHENYL (sur.)	2021/06/09		93	%	60 - 140
			EPH (C10-C19)	2021/06/09		92	%	70 - 130
			EPH (C19-C32)	2021/06/09		92	%	70 - 130
A249847	MHF	Method Blank	O-TERPHENYL (sur.)	2021/06/09		95	%	60 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			EPH (C10-C19)	2021/06/09	ND, RDL=100		mg/kg	
			EPH (C19-C32)	2021/06/09	ND, RDL=100		mg/kg	
A249847	MHF	RPD	EPH (C10-C19)	2021/06/09	NC		%	50
			EPH (C19-C32)	2021/06/09	NC		%	50
A251373	TL0	Method Blank	Moisture	2021/06/10	ND, RDL=0.30		%	
A251373	TL0	RPD	Moisture	2021/06/10	1.4		%	20
A251409	JAX	Spiked Blank	Leachable Initial pH of Sample	2021/06/11		100	%	97 - 103
			Leachable pH after HCl	2021/06/11		99	%	97 - 103
			Leachable Final pH of Leachate	2021/06/11		100	%	97 - 103
A251409	JAX	RPD	Leachable Initial pH of Sample	2021/06/11	0.65		%	N/A
			Leachable pH after HCl	2021/06/11	5.1		%	N/A
			Leachable Final pH of Leachate	2021/06/11	0.50		%	N/A
A251489	RSU	Matrix Spike	1,4-Difluorobenzene (sur.)	2021/06/10		88	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/06/10		94	%	60 - 140
			D10-o-Xylene (sur.)	2021/06/10		107	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/06/10		87	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/06/10		87	%	50 - 140
			Benzene	2021/06/10		93	%	50 - 140
			Toluene	2021/06/10		98	%	50 - 140
			Ethylbenzene	2021/06/10		103	%	50 - 140
			m & p-Xylene	2021/06/10		100	%	50 - 140
			o-Xylene	2021/06/10		105	%	50 - 140
			Styrene	2021/06/10		103	%	50 - 140
A251489	RSU	Spiked Blank	1,4-Difluorobenzene (sur.)	2021/06/10		102	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/06/10		111	%	60 - 140
			D10-o-Xylene (sur.)	2021/06/10		102	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/06/10		106	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/06/10		98	%	60 - 130
			Benzene	2021/06/10		103	%	60 - 130
			Toluene	2021/06/10		102	%	60 - 130
			Ethylbenzene	2021/06/10		107	%	60 - 130
			m & p-Xylene	2021/06/10		102	%	60 - 130
			o-Xylene	2021/06/10		118	%	60 - 130
			Styrene	2021/06/10		115	%	60 - 130
A251489	RSU	Method Blank	1,4-Difluorobenzene (sur.)	2021/06/10		93	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/06/10		109	%	60 - 140
			D10-o-Xylene (sur.)	2021/06/10		101	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/06/10		99	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/06/10	ND, RDL=0.040		mg/kg	
			Benzene	2021/06/10	ND, RDL=0.0050		mg/kg	
			Toluene	2021/06/10	ND, RDL=0.050		mg/kg	
			Ethylbenzene	2021/06/10	ND, RDL=0.010		mg/kg	
			m & p-Xylene	2021/06/10	ND, RDL=0.040		mg/kg	
			o-Xylene	2021/06/10	ND, RDL=0.040		mg/kg	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Styrene	2021/06/10	ND, RDL=0.030		mg/kg	
A251489	RSU	RPD	Methyl-tert-butylether (MTBE)	2021/06/10	NC		%	50
			Benzene	2021/06/10	NC		%	50
			Toluene	2021/06/10	NC		%	50
			Ethylbenzene	2021/06/10	NC		%	50
			m & p-Xylene	2021/06/10	NC		%	50
			o-Xylene	2021/06/10	NC		%	50
			Styrene	2021/06/10	NC		%	50
A252031	KH2	Matrix Spike [ZX7156-01]	Leachable Antimony (Sb)	2021/06/11		112	%	75 - 125
			Leachable Arsenic (As)	2021/06/11		116	%	75 - 125
			Leachable Barium (Ba)	2021/06/11		NC	%	75 - 125
			Leachable Beryllium (Be)	2021/06/11		114	%	75 - 125
			Leachable Boron (B)	2021/06/11		114	%	75 - 125
			Leachable Cadmium (Cd)	2021/06/11		105	%	75 - 125
			Leachable Chromium (Cr)	2021/06/11		100	%	75 - 125
			Leachable Cobalt (Co)	2021/06/11		98	%	75 - 125
			Leachable Copper (Cu)	2021/06/11		95	%	75 - 125
			Leachable Iron (Fe)	2021/06/11		NC	%	75 - 125
			Leachable Lead (Pb)	2021/06/11		95	%	75 - 125
			Leachable Mercury (Hg)	2021/06/11		104	%	75 - 125
			Leachable Nickel (Ni)	2021/06/11		96	%	75 - 125
			Leachable Selenium (Se)	2021/06/11		99	%	75 - 125
			Leachable Silver (Ag)	2021/06/11		100	%	75 - 125
			Leachable Thallium (Tl)	2021/06/11		94	%	75 - 125
			Leachable Uranium (U)	2021/06/11		95	%	75 - 125
			Leachable Vanadium (V)	2021/06/11		104	%	75 - 125
			Leachable Zinc (Zn)	2021/06/11		110	%	75 - 125
			Leachable Zirconium (Zr)	2021/06/11		106	%	75 - 125
A252031	KH2	Spiked Blank	Leachable Antimony (Sb)	2021/06/11		110	%	80 - 120
			Leachable Arsenic (As)	2021/06/11		114	%	80 - 120
			Leachable Barium (Ba)	2021/06/11		126 (1)	%	80 - 120
			Leachable Beryllium (Be)	2021/06/11		113	%	80 - 120
			Leachable Boron (B)	2021/06/11		124 (1)	%	80 - 120
			Leachable Cadmium (Cd)	2021/06/11		102	%	80 - 120
			Leachable Chromium (Cr)	2021/06/11		98	%	80 - 120
			Leachable Cobalt (Co)	2021/06/11		98	%	80 - 120
			Leachable Copper (Cu)	2021/06/11		98	%	80 - 120
			Leachable Iron (Fe)	2021/06/11		99	%	80 - 120
			Leachable Lead (Pb)	2021/06/11		95	%	80 - 120
			Leachable Mercury (Hg)	2021/06/11		104	%	80 - 120
			Leachable Nickel (Ni)	2021/06/11		98	%	80 - 120
			Leachable Selenium (Se)	2021/06/11		99	%	80 - 120
			Leachable Silver (Ag)	2021/06/11		100	%	80 - 120
			Leachable Thallium (Tl)	2021/06/11		92	%	80 - 120
			Leachable Uranium (U)	2021/06/11		90	%	80 - 120
			Leachable Vanadium (V)	2021/06/11		101	%	80 - 120
			Leachable Zinc (Zn)	2021/06/11		120	%	80 - 120
			Leachable Zirconium (Zr)	2021/06/11		102	%	80 - 120
A252031	KH2	Method Blank	Leachable Antimony (Sb)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Arsenic (As)	2021/06/11	ND, RDL=0.50		mg/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Barium (Ba)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Beryllium (Be)	2021/06/11	ND, RDL=0.50		mg/L	
			Leachable Boron (B)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Cadmium (Cd)	2021/06/11	ND, RDL=0.10		mg/L	
			Leachable Chromium (Cr)	2021/06/11	ND, RDL=0.50		mg/L	
			Leachable Cobalt (Co)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Copper (Cu)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Iron (Fe)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Lead (Pb)	2021/06/11	ND, RDL=0.50		mg/L	
			Leachable Mercury (Hg)	2021/06/11	ND, RDL=0.020		mg/L	
			Leachable Nickel (Ni)	2021/06/11	ND, RDL=0.50		mg/L	
			Leachable Selenium (Se)	2021/06/11	ND, RDL=0.10		mg/L	
			Leachable Silver (Ag)	2021/06/11	ND, RDL=0.50		mg/L	
			Leachable Thallium (Tl)	2021/06/11	ND, RDL=0.50		mg/L	
			Leachable Uranium (U)	2021/06/11	ND, RDL=0.20		mg/L	
			Leachable Vanadium (V)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Zinc (Zn)	2021/06/11	ND, RDL=1.0		mg/L	
			Leachable Zirconium (Zr)	2021/06/11	ND, RDL=1.0		mg/L	
A252031	KH2	RPD [ZX7156-01]	Leachable Antimony (Sb)	2021/06/11	NC		%	35
			Leachable Arsenic (As)	2021/06/11	NC		%	35
			Leachable Barium (Ba)	2021/06/11	3.8		%	35
			Leachable Beryllium (Be)	2021/06/11	NC		%	35
			Leachable Boron (B)	2021/06/11	NC		%	35
			Leachable Cadmium (Cd)	2021/06/11	NC		%	35
			Leachable Chromium (Cr)	2021/06/11	NC		%	35
			Leachable Cobalt (Co)	2021/06/11	NC		%	35
			Leachable Copper (Cu)	2021/06/11	NC		%	35
			Leachable Iron (Fe)	2021/06/11	15		%	35
			Leachable Lead (Pb)	2021/06/11	NC		%	35
			Leachable Mercury (Hg)	2021/06/11	NC		%	35
			Leachable Nickel (Ni)	2021/06/11	NC		%	35
			Leachable Selenium (Se)	2021/06/11	NC		%	35
			Leachable Silver (Ag)	2021/06/11	NC		%	35
			Leachable Thallium (Tl)	2021/06/11	NC		%	35
			Leachable Uranium (U)	2021/06/11	NC		%	35
			Leachable Vanadium (V)	2021/06/11	NC		%	35
			Leachable Zinc (Zn)	2021/06/11	NC		%	35

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Zirconium (Zr)	2021/06/11	NC		%	35
A252252	KH2	Matrix Spike [ZX7156-01]	Total Aluminum (Al)	2021/06/12		NC	%	75 - 125
			Total Antimony (Sb)	2021/06/12		93	%	75 - 125
			Total Arsenic (As)	2021/06/12		80	%	75 - 125
			Total Barium (Ba)	2021/06/12		NC	%	75 - 125
			Total Beryllium (Be)	2021/06/12		95	%	75 - 125
			Total Bismuth (Bi)	2021/06/12		98	%	75 - 125
			Total Boron (B)	2021/06/12		133 (1)	%	75 - 125
			Total Cadmium (Cd)	2021/06/12		99	%	75 - 125
			Total Calcium (Ca)	2021/06/12		NC	%	75 - 125
			Total Chromium (Cr)	2021/06/12		106	%	75 - 125
			Total Cobalt (Co)	2021/06/12		84	%	75 - 125
			Total Copper (Cu)	2021/06/12		83	%	75 - 125
			Total Iron (Fe)	2021/06/12		NC	%	75 - 125
			Total Lead (Pb)	2021/06/12		97	%	75 - 125
			Total Lithium (Li)	2021/06/12		107	%	75 - 125
			Total Magnesium (Mg)	2021/06/12		NC	%	75 - 125
			Total Manganese (Mn)	2021/06/12		NC	%	75 - 125
			Total Mercury (Hg)	2021/06/12		93	%	75 - 125
			Total Molybdenum (Mo)	2021/06/12		103	%	75 - 125
			Total Nickel (Ni)	2021/06/12		87	%	75 - 125
			Total Phosphorus (P)	2021/06/12		89	%	75 - 125
			Total Potassium (K)	2021/06/12		98	%	75 - 125
			Total Selenium (Se)	2021/06/12		89	%	75 - 125
			Total Silver (Ag)	2021/06/12		97	%	75 - 125
			Total Sodium (Na)	2021/06/12		68 (1)	%	75 - 125
			Total Strontium (Sr)	2021/06/12		NC	%	75 - 125
			Total Thallium (Tl)	2021/06/12		95	%	75 - 125
			Total Tin (Sn)	2021/06/12		101	%	75 - 125
			Total Titanium (Ti)	2021/06/12		125	%	75 - 125
			Total Tungsten (W)	2021/06/12		84	%	75 - 125
			Total Uranium (U)	2021/06/12		101	%	75 - 125
			Total Vanadium (V)	2021/06/12		128 (1)	%	75 - 125
			Total Zinc (Zn)	2021/06/12		NC	%	75 - 125
			Total Zirconium (Zr)	2021/06/12		93	%	75 - 125
A252252	KH2	QC Standard	Total Aluminum (Al)	2021/06/12		81	%	70 - 130
			Total Antimony (Sb)	2021/06/12		115	%	70 - 130
			Total Arsenic (As)	2021/06/12		95	%	70 - 130
			Total Barium (Ba)	2021/06/12		101	%	70 - 130
			Total Beryllium (Be)	2021/06/12		86	%	70 - 130
			Total Cadmium (Cd)	2021/06/12		102	%	70 - 130
			Total Calcium (Ca)	2021/06/12		87	%	70 - 130
			Total Chromium (Cr)	2021/06/12		90	%	70 - 130
			Total Cobalt (Co)	2021/06/12		90	%	70 - 130
			Total Copper (Cu)	2021/06/12		101	%	70 - 130
			Total Iron (Fe)	2021/06/12		79	%	70 - 130
			Total Lead (Pb)	2021/06/12		117	%	70 - 130
			Total Lithium (Li)	2021/06/12		99	%	70 - 130
			Total Magnesium (Mg)	2021/06/12		86	%	70 - 130
			Total Manganese (Mn)	2021/06/12		93	%	70 - 130
			Total Mercury (Hg)	2021/06/12		92	%	70 - 130
			Total Molybdenum (Mo)	2021/06/12		113	%	70 - 130
			Total Nickel (Ni)	2021/06/12		100	%	70 - 130
			Total Phosphorus (P)	2021/06/12		78	%	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silver (Ag)	2021/06/12		91	%	70 - 130
			Total Sodium (Na)	2021/06/12		73	%	70 - 130
			Total Strontium (Sr)	2021/06/12		101	%	70 - 130
			Total Thallium (Tl)	2021/06/12		103	%	70 - 130
			Total Tin (Sn)	2021/06/12		106	%	70 - 130
			Total Uranium (U)	2021/06/12		95	%	70 - 130
			Total Vanadium (V)	2021/06/12		96	%	70 - 130
			Total Zinc (Zn)	2021/06/12		95	%	70 - 130
A252252	KH2	Spiked Blank	Total Aluminum (Al)	2021/06/12		94	%	75 - 125
			Total Antimony (Sb)	2021/06/12		100	%	75 - 125
			Total Arsenic (As)	2021/06/12		90	%	75 - 125
			Total Barium (Ba)	2021/06/12		98	%	75 - 125
			Total Beryllium (Be)	2021/06/12		93	%	75 - 125
			Total Bismuth (Bi)	2021/06/12		108	%	75 - 125
			Total Boron (B)	2021/06/12		114	%	75 - 125
			Total Cadmium (Cd)	2021/06/12		96	%	75 - 125
			Total Calcium (Ca)	2021/06/12		87	%	75 - 125
			Total Chromium (Cr)	2021/06/12		89	%	75 - 125
			Total Cobalt (Co)	2021/06/12		88	%	75 - 125
			Total Copper (Cu)	2021/06/12		90	%	75 - 125
			Total Iron (Fe)	2021/06/12		104	%	75 - 125
			Total Lead (Pb)	2021/06/12		101	%	75 - 125
			Total Lithium (Li)	2021/06/12		103	%	75 - 125
			Total Magnesium (Mg)	2021/06/12		83	%	75 - 125
			Total Manganese (Mn)	2021/06/12		88	%	75 - 125
			Total Mercury (Hg)	2021/06/12		104	%	75 - 125
			Total Molybdenum (Mo)	2021/06/12		104	%	75 - 125
			Total Nickel (Ni)	2021/06/12		89	%	75 - 125
			Total Phosphorus (P)	2021/06/12		85	%	75 - 125
			Total Potassium (K)	2021/06/12		73 (1)	%	75 - 125
			Total Selenium (Se)	2021/06/12		97	%	75 - 125
			Total Silver (Ag)	2021/06/12		98	%	75 - 125
			Total Sodium (Na)	2021/06/12		75	%	75 - 125
			Total Strontium (Sr)	2021/06/12		94	%	75 - 125
			Total Thallium (Tl)	2021/06/12		104	%	75 - 125
			Total Tin (Sn)	2021/06/12		101	%	75 - 125
			Total Titanium (Ti)	2021/06/12		89	%	75 - 125
			Total Tungsten (W)	2021/06/12		107	%	75 - 125
			Total Uranium (U)	2021/06/12		105	%	75 - 125
			Total Vanadium (V)	2021/06/12		89	%	75 - 125
			Total Zinc (Zn)	2021/06/12		85	%	75 - 125
			Total Zirconium (Zr)	2021/06/12		88	%	75 - 125
A252252	KH2	Method Blank	Total Aluminum (Al)	2021/06/12	ND, RDL=100		mg/kg	
			Total Antimony (Sb)	2021/06/12	ND, RDL=0.10		mg/kg	
			Total Arsenic (As)	2021/06/12	ND, RDL=0.20		mg/kg	
			Total Barium (Ba)	2021/06/12	ND, RDL=0.10		mg/kg	
			Total Beryllium (Be)	2021/06/12	ND, RDL=0.20		mg/kg	
			Total Bismuth (Bi)	2021/06/12	ND, RDL=0.10		mg/kg	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Boron (B)	2021/06/12	ND, RDL=1.0		mg/kg	
			Total Cadmium (Cd)	2021/06/12	ND, RDL=0.050		mg/kg	
			Total Calcium (Ca)	2021/06/12	ND, RDL=100		mg/kg	
			Total Chromium (Cr)	2021/06/12	ND, RDL=0.50		mg/kg	
			Total Cobalt (Co)	2021/06/12	ND, RDL=0.10		mg/kg	
			Total Copper (Cu)	2021/06/12	ND, RDL=0.50		mg/kg	
			Total Iron (Fe)	2021/06/12	ND, RDL=100		mg/kg	
			Total Lead (Pb)	2021/06/12	ND, RDL=0.10		mg/kg	
			Total Lithium (Li)	2021/06/12	ND, RDL=0.50		mg/kg	
			Total Magnesium (Mg)	2021/06/12	ND, RDL=100		mg/kg	
			Total Manganese (Mn)	2021/06/12	ND, RDL=0.20		mg/kg	
			Total Mercury (Hg)	2021/06/12	ND, RDL=0.050		mg/kg	
			Total Molybdenum (Mo)	2021/06/12	ND, RDL=0.10		mg/kg	
			Total Nickel (Ni)	2021/06/12	ND, RDL=0.50		mg/kg	
			Total Phosphorus (P)	2021/06/12	ND, RDL=10		mg/kg	
			Total Potassium (K)	2021/06/12	ND, RDL=100		mg/kg	
			Total Selenium (Se)	2021/06/12	ND, RDL=0.50		mg/kg	
			Total Silver (Ag)	2021/06/12	ND, RDL=0.050		mg/kg	
			Total Sodium (Na)	2021/06/12	ND, RDL=100		mg/kg	
			Total Strontium (Sr)	2021/06/12	ND, RDL=0.10		mg/kg	
			Total Thallium (Tl)	2021/06/12	ND, RDL=0.050		mg/kg	
			Total Tin (Sn)	2021/06/12	ND, RDL=0.10		mg/kg	
			Total Titanium (Ti)	2021/06/12	ND, RDL=1.0		mg/kg	
			Total Tungsten (W)	2021/06/12	ND, RDL=0.50		mg/kg	
			Total Uranium (U)	2021/06/12	ND, RDL=0.050		mg/kg	
			Total Vanadium (V)	2021/06/12	ND, RDL=1.0		mg/kg	
			Total Zinc (Zn)	2021/06/12	ND, RDL=1.0		mg/kg	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Zirconium (Zr)	2021/06/12	ND, RDL=0.50		mg/kg	
A252252	KH2	RPD [ZX7156-01]	Total Aluminum (Al)	2021/06/12	6.6		%	40
			Total Antimony (Sb)	2021/06/12	2.6		%	30
			Total Arsenic (As)	2021/06/12	1.6		%	30
			Total Barium (Ba)	2021/06/12	0.86		%	40
			Total Beryllium (Be)	2021/06/12	6.7		%	30
			Total Bismuth (Bi)	2021/06/12	NC		%	30
			Total Boron (B)	2021/06/12	1.7		%	30
			Total Cadmium (Cd)	2021/06/12	1.4		%	30
			Total Calcium (Ca)	2021/06/12	0.66		%	30
			Total Chromium (Cr)	2021/06/12	4.1		%	30
			Total Cobalt (Co)	2021/06/12	0.28		%	30
			Total Copper (Cu)	2021/06/12	3.0		%	30
			Total Iron (Fe)	2021/06/12	0.11		%	30
			Total Lead (Pb)	2021/06/12	4.2		%	40
			Total Lithium (Li)	2021/06/12	5.0		%	30
			Total Magnesium (Mg)	2021/06/12	8.0		%	30
			Total Manganese (Mn)	2021/06/12	1.8		%	30
			Total Mercury (Hg)	2021/06/12	NC		%	40
			Total Molybdenum (Mo)	2021/06/12	13		%	40
			Total Nickel (Ni)	2021/06/12	0.061		%	30
			Total Phosphorus (P)	2021/06/12	13		%	30
			Total Potassium (K)	2021/06/12	3.4		%	40
			Total Selenium (Se)	2021/06/12	0.19		%	30
			Total Silver (Ag)	2021/06/12	6.5		%	40
			Total Sodium (Na)	2021/06/12	8.5		%	40
			Total Strontium (Sr)	2021/06/12	4.1		%	40
			Total Thallium (Tl)	2021/06/12	3.5		%	30
			Total Tin (Sn)	2021/06/12	7.7		%	40
			Total Titanium (Ti)	2021/06/12	26		%	40
			Total Tungsten (W)	2021/06/12	NC		%	40
			Total Uranium (U)	2021/06/12	1.1		%	30
			Total Vanadium (V)	2021/06/12	1.9		%	30
			Total Zinc (Zn)	2021/06/12	3.6		%	30
			Total Zirconium (Zr)	2021/06/12	3.1		%	40
A252721	JHC	QC Standard	Soluble (2:1) pH	2021/06/11		101	%	98 - 102
A252721	JHC	Spiked Blank	Soluble (2:1) pH	2021/06/11		100	%	97 - 103
A252721	JHC	RPD [ZX7156-01]	Soluble (2:1) pH	2021/06/11	0.33		%	N/A
A255229	PL	QC Standard	Total Carbon	2021/06/15		95	%	75 - 125
			Total Sulphur (S)	2021/06/15		115	%	75 - 125
A255229	PL	Spiked Blank	Total Carbon	2021/06/15		98	%	75 - 125
			Total Sulphur (S)	2021/06/15		101	%	75 - 125
A255229	PL	Method Blank	Total Carbon	2021/06/15	ND, RDL=0.050		%	
			Total Sulphur (S)	2021/06/15	ND, RDL=0.060		%	
A255229	PL	RPD [ZX7156-01]	Total Carbon	2021/06/15	3.4		%	30
			Total Sulphur (S)	2021/06/15	16		%	30
A256855	MPE	Matrix Spike	Total Oil and grease	2021/06/17		92	%	65 - 135
A256855	MPE	Spiked Blank	Total Oil and grease	2021/06/17		94	%	65 - 135
A256855	MPE	Method Blank	Total Oil and grease	2021/06/17	ND, RDL=100		ug/g	

BV Labs Job #: C138547
Report Date: 2021/06/17

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
A256855	MPE	RPD	Total Oil and grease	2021/06/17	NC (2)		%	30

N/A = Not Applicable

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

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

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

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

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

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

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

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

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

(2) Detection limits raised due to high moisture content.

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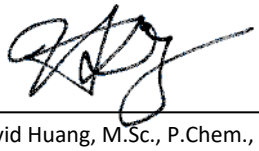
BV Labs Job #: C138547
Report Date: 2021/06/17

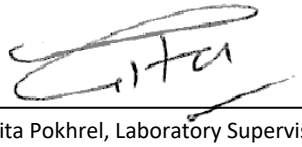
Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179

VALIDATION SIGNATURE PAGE

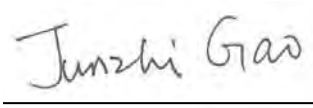
The analytical data and all QC contained in this report were reviewed and validated by:



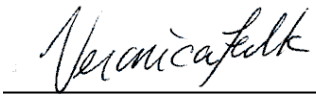
David Huang, M.Sc., P.Chem., QP, Scientific Services Manager



Gita Pokhrel, Laboratory Supervisor



Janet Gao, B.Sc., QP, Supervisor, Organics



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Custody Tracking Form

W37063

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain Of Custody). Please ensure your form has a barcode or a BV Labs eCOC confirmation number in the top right hand side. This number links your electronic submission to your samples.

First Sample: 2021-06 MWTF-SLP
Last Sample: 2021-06 MWTF-SLP
Sample Count: 1

Relinquished By				Received By			
		Date		DMalmloff	DMalmloff	Date	2021/06/07
		Time (24 HR)				Time (24 HR)	08:30
		Date		Stanley P Thomas		Date	2021/06/08
		Time (24 HR)				Time (24 HR)	06:10
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvlabs.com

Submission Triage Information

Sampled By

# of Coolers/Pkgs: 2

Rush ☐ Immediate Test ☐ Food Residue ☐

Micro ☐ Food Chemistry ☐

*** LAB USE ONLY ***

Received At FSJ

Labeled By

Verified By

Comments:

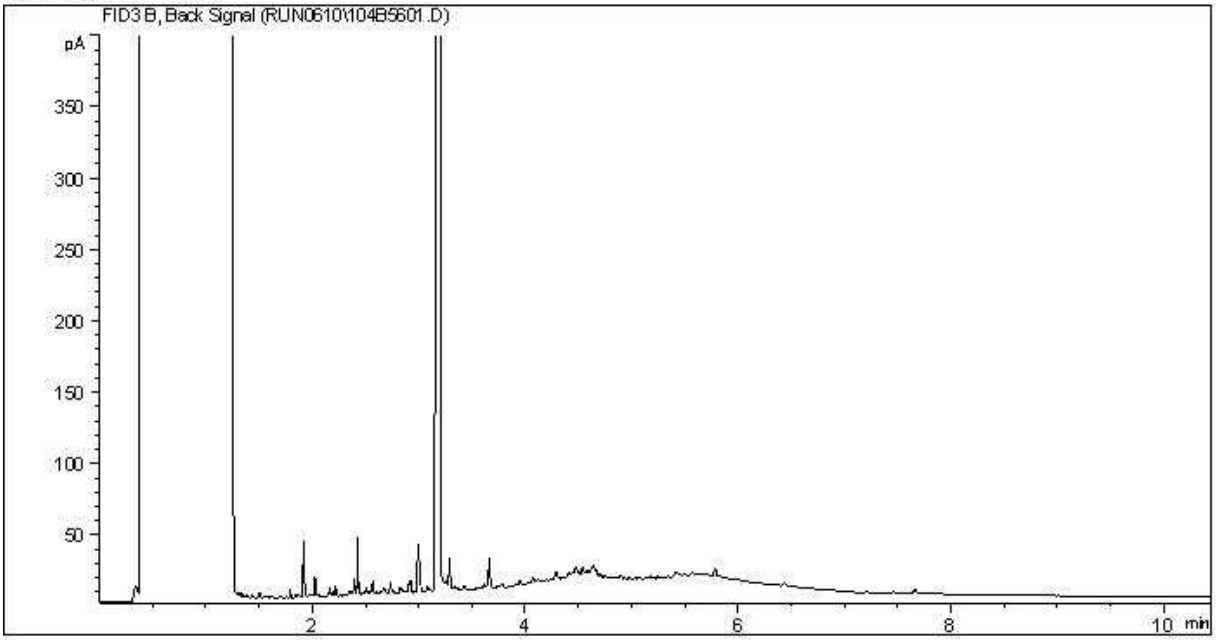
C138547

Custody Seal		Cooling Media	Temperature °C		
Present (Y/N)	Intact (Y/N)	Present (Y/N)	1	2	3
NO		Yes	3	3	4
NO		Yes	3	5	3
Y	Y	Y	2	2	2
MLAL Y	Y	Y	4	4	4

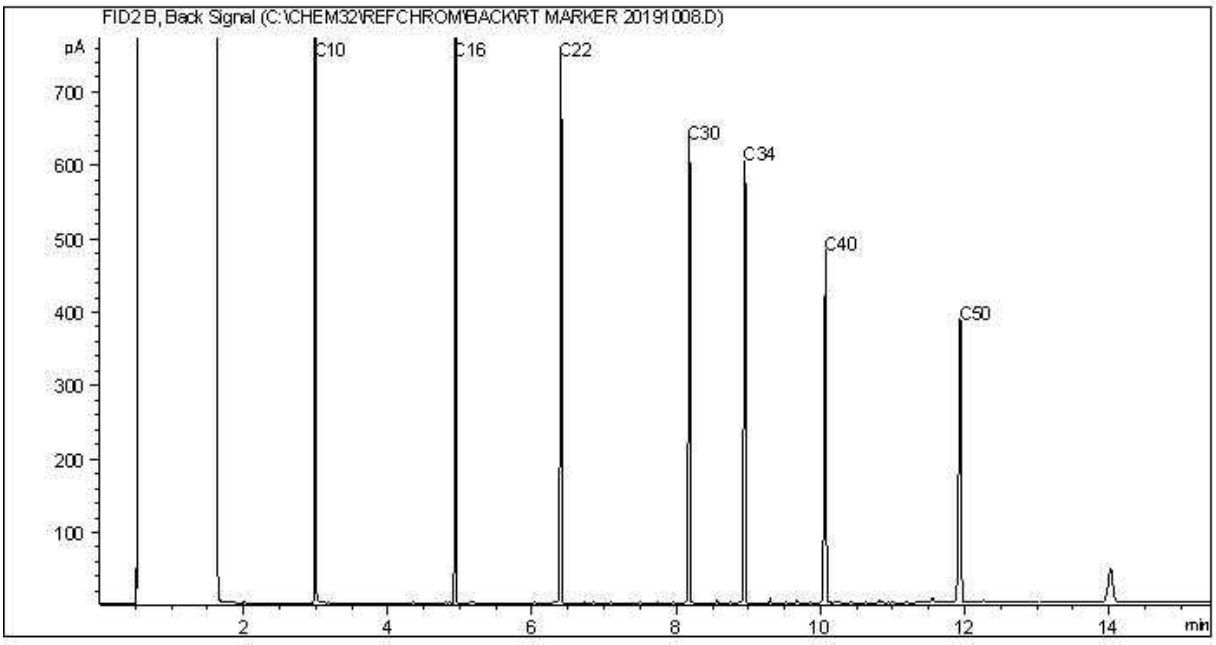
Page 1 of 1

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC20



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

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

eCOC: W37063

Project Information:	C138547
Job Received:	2021/06/07 10:25
Results Required By:	2021/06/10 18:41
Expected Arrival:	2021/06/03 18:41
Submitted By:	Lukas Bennetto
Submitted To:	Burnaby ENV: 4606 Canada Way

Invoice Information

Attn: ACCOUNTS PAYABLE
Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC , V1J 4H6
Email to:
accounts.payable@prhp.ca

Report Information

Attn: Kael Hanak
Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC , V1J 4H6
Email to:
kael.hanak@prhp.ca

Project Information

Quote #:	B61674, C10269
PO/AFE#:	48179
Project #:	
Site Location:	SITE C

Analytical Summary

A: 2021/06/10 18:41

Client Sample ID	Clnt Ref	Sampling Date/Time	Matrix	#Cont	BC BTEX/VPH in Soil	BC LEPH/HEPH Petroleum Hydrocarbons	CSR/CCME Metals in Soil with Hg	TCLP Metals	Carbon, Nitrogen, Sulphur - Combustion	Total Oil and Grease
2021-06 MWTF-SLP	1	2021/06/03 13:00	SEDIMENT	6	A	A	A	A	A	A

Deadlines are estimates only and are subject to change. Please refer to your Job Confirmation report for final due dates.

Submission Information

# of Samples:	1
Details:	Please use Scenario 14891

Your P.O. #: 48179
Site Location: SITE C
Your C.O.C. #: 41701

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/10/07
Report #: R3082146
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C172143
Received: 2021/09/23, 13:30

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Carbon, Nitrogen, Sulphur - Combustion (1)	1	N/A	2021/09/30	CAL SOP-00263	AN-A-030609-E-01 m
BC Hydrocarbons in Soil by GC/FID (1)	1	2021/09/28	2021/09/29	CAL SOP-00239	BCMOE EPH S 12/16
EPH less PAH in Soil By GC/FID (1)	1	N/A	2021/09/29		Auto Calc
Glycols in Soil by GC/FID (1)	1	2021/09/29	2021/09/29	CAL SOP-00093	BCMOE Glycols 09/17
Elements by ICPMS (total) (1)	1	2021/09/29	2021/10/03	CAL SOP-00265	EPA 6020 m
ICPMS Metals on TCLP Leachate (1, 2)	1	2021/09/28	2021/09/29	AB SOP-00043	EPA 6020b R2 m
Moisture (1)	1	N/A	2021/09/29	AB SOP-00002	CCME PHC-CWS m
PAH in Soil by GC/MS (1)	1	2021/09/28	2021/09/29	AB SOP-00003 AB SOP-00036	EPA 3540C/8270E m
Total LMW, HMW, Total PAH Calc (1)	1	N/A	2021/09/29		Auto Calc
TCLP pH Measurements (1)	1	2021/09/28	2021/09/29	AB SOP-00006	SM 23 4500 H+B m
pH (2:1 DI Water Extract) (1)	1	2021/09/29	2021/09/29	AB SOP-00033 / AB SOP-00006	SM 23 4500 H+B m
Total Oil and Grease	1	2021/10/07	2021/10/07	BBY8SOP-00006	BCMOE BCLM Mar 1997
Volatile HC-BTEX (1)	1	2021/09/27	2021/09/30		Auto Calc
BTEX/MTBE/Styrene/VPH in Soil GC/MS/FID (1)	1	N/A	2021/09/29	CAL SOP-00240	BC MELP VH 2014

Remarks:

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

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

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

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

Your P.O. #: 48179
Site Location: SITE C
Your C.O.C. #: 41701

Attention: Kael Hanak

Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC
CANADA V1J 4H6

Report Date: 2021/10/07
Report #: R3082146
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C172143
Received: 2021/09/23, 13:30

dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) Samples were extracted as per EPA 1311 unless otherwise noted in the report.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Debbie Nordbruget, Key Account Specialist
Email: Debra.NORDBRUGET@bureauveritas.com
Phone# (250)385-6112
==========
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BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

RESULTS OF CHEMICAL ANALYSES OF SOIL

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Misc. Inorganics				
Total Carbon	%	0.12	0.050	A367221
Leachable Initial pH of Sample	pH	9.80	N/A	A368957
Leachable pH after HCl	pH	3.79	N/A	A368957
Total Sulphur (S)	%	13	0.060	A367221
Leachable Final pH of Leachate	pH	6.71	N/A	A368957
OIL & GREASE				
Total Oil and grease	ug/g	ND (1)	280	A379316
Physical Properties				
Soluble (2:1) pH	pH	9.09	N/A	A370298

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to high moisture content.

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BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

GLYCOLS BY GC-FID (SOIL)

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Glycols				
Extractable (Water) Ethylene Glycol	mg/kg	ND (1)	28	A368553
Extractable (Water) Diethylene Glycol	mg/kg	ND (1)	28	A368553
Extractable (Water) Triethylene Glycol	mg/kg	ND (1)	28	A368553
Extractable (Water) Propylene Glycol	mg/kg	ND (1)	28	A368553
Surrogate Recovery (%)				
Extractable (Water) Methyl Sulfone (sur.)	%	105		A368553

RDL = Reportable Detection Limit

(1) Detection limits raised due to high moisture content, sample contains => 50% moisture.

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BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

PHYSICAL TESTING (SOIL)

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Physical Properties				
Moisture	%	64	0.30	A369047
RDL = Reportable Detection Limit				

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BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Polycyclic Aromatics				
Acenaphthene	mg/kg	ND (1)	0.012	A369134
Acenaphthylene	mg/kg	ND (1)	0.012	A369134
Anthracene	mg/kg	ND (1)	0.0096	A369134
Benzo(a)anthracene	mg/kg	ND (1)	0.024	A369134
Benzo(b&j)fluoranthene	mg/kg	ND (1)	0.024	A369134
Benzo(k)fluoranthene	mg/kg	ND (1)	0.024	A369134
Benzo(g,h,i)perylene	mg/kg	ND (1)	0.048	A369134
Benzo(a)pyrene	mg/kg	ND (1)	0.024	A369134
Chrysene	mg/kg	ND (1)	0.024	A369134
Dibenz(a,h)anthracene	mg/kg	ND (1)	0.048	A369134
Fluoranthene	mg/kg	ND (1)	0.024	A369134
Fluorene	mg/kg	ND (1)	0.024	A369134
Indeno(1,2,3-cd)pyrene	mg/kg	ND (1)	0.048	A369134
2-Methylnaphthalene	mg/kg	0.072 (1)	0.024	A369134
Naphthalene	mg/kg	0.038 (1)	0.024	A369134
Phenanthrene	mg/kg	0.047 (1)	0.024	A369134
Pyrene	mg/kg	ND (1)	0.024	A369134
Low Molecular Weight PAH`s	mg/kg	0.16	0.12	A367590
High Molecular Weight PAH`s	mg/kg	ND	0.048	A367590
Total PAH	mg/kg	0.16	0.12	A367590
Surrogate Recovery (%)				
D10-ANTHRACENE (sur.)	%	112		A369134
D8-ACENAPHTHYLENE (sur.)	%	105		A369134
D8-NAPHTHALENE (sur.)	%	86		A369134
D9-Acridine (sur.)	%	72		A369134
TERPHENYL-D14 (sur.)	%	115		A369134

RDL = Reportable Detection Limit
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.
(1) Detection limits raised due to high moisture content, sample contains => 50% moisture.

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Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Elements				
Leachable Antimony (Sb)	mg/L	ND	1.0	A369630
Leachable Arsenic (As)	mg/L	ND	0.50	A369630
Leachable Barium (Ba)	mg/L	1.1	1.0	A369630
Leachable Beryllium (Be)	mg/L	ND	0.50	A369630
Leachable Boron (B)	mg/L	ND	1.0	A369630
Leachable Cadmium (Cd)	mg/L	ND	0.10	A369630
Leachable Chromium (Cr)	mg/L	ND	0.50	A369630
Leachable Cobalt (Co)	mg/L	ND	1.0	A369630
Leachable Copper (Cu)	mg/L	ND	1.0	A369630
Leachable Iron (Fe)	mg/L	ND	1.0	A369630
Leachable Lead (Pb)	mg/L	ND	0.50	A369630
Leachable Mercury (Hg)	mg/L	ND	0.020	A369630
Leachable Nickel (Ni)	mg/L	0.55	0.50	A369630
Leachable Selenium (Se)	mg/L	ND	0.10	A369630
Leachable Silver (Ag)	mg/L	ND	0.50	A369630
Leachable Thallium (Tl)	mg/L	ND	0.50	A369630
Leachable Uranium (U)	mg/L	ND	0.20	A369630
Leachable Vanadium (V)	mg/L	ND	1.0	A369630
Leachable Zinc (Zn)	mg/L	ND	1.0	A369630
Leachable Zirconium (Zr)	mg/L	ND	1.0	A369630
Total Metals by ICPMS				
Total Aluminum (Al)	mg/kg	4700	100	A370144
Total Antimony (Sb)	mg/kg	0.42	0.10	A370144
Total Arsenic (As)	mg/kg	4.88	0.20	A370144
Total Barium (Ba)	mg/kg	415	0.10	A370144
Total Beryllium (Be)	mg/kg	0.32	0.20	A370144
Total Bismuth (Bi)	mg/kg	ND	0.10	A370144
Total Boron (B)	mg/kg	13.3	1.0	A370144
Total Cadmium (Cd)	mg/kg	1.05	0.050	A370144
Total Calcium (Ca)	mg/kg	331000	100	A370144

RDL = Reportable Detection Limit
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Total Chromium (Cr)	mg/kg	8.04	0.50	A370144
Total Cobalt (Co)	mg/kg	43.5	0.10	A370144
Total Copper (Cu)	mg/kg	15.5	0.50	A370144
Total Iron (Fe)	mg/kg	10300	100	A370144
Total Lead (Pb)	mg/kg	3.94	0.10	A370144
Total Lithium (Li)	mg/kg	9.27	0.50	A370144
Total Magnesium (Mg)	mg/kg	9550	100	A370144
Total Manganese (Mn)	mg/kg	939	0.20	A370144
Total Mercury (Hg)	mg/kg	ND	0.050	A370144
Total Molybdenum (Mo)	mg/kg	0.80	0.10	A370144
Total Nickel (Ni)	mg/kg	146	0.50	A370144
Total Phosphorus (P)	mg/kg	275	10	A370144
Total Potassium (K)	mg/kg	845	100	A370144
Total Selenium (Se)	mg/kg	0.54	0.50	A370144
Total Silver (Ag)	mg/kg	0.074	0.050	A370144
Total Sodium (Na)	mg/kg	1220	100	A370144
Total Strontium (Sr)	mg/kg	855	0.10	A370144
Total Thallium (Tl)	mg/kg	0.064	0.050	A370144
Total Tin (Sn)	mg/kg	1.34	0.10	A370144
Total Titanium (Ti)	mg/kg	14.3	1.0	A370144
Total Tungsten (W)	mg/kg	ND	0.50	A370144
Total Uranium (U)	mg/kg	3.52	0.050	A370144
Total Vanadium (V)	mg/kg	14.3	1.0	A370144
Total Zinc (Zn)	mg/kg	138	1.0	A370144
Total Zirconium (Zr)	mg/kg	3.08	0.50	A370144

RDL = Reportable Detection Limit
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

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BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

BTEX BY GC-MS (SOIL)

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Volatiles				
Xylenes (Total)	mg/kg	ND	0.14	A367591
VH C6-C10	mg/kg	ND	28	A367591
VPH (VH6 to 10 - BTEX)	mg/kg	ND	28	A367591
Field Preserved Volatiles				
Methyl-tert-butylether (MTBE)	mg/kg	ND (1)	0.040	A369014
Benzene	mg/kg	ND (2)	0.016	A369014
Toluene	mg/kg	ND (2)	0.16	A369014
Ethylbenzene	mg/kg	ND (2)	0.033	A369014
m & p-Xylene	mg/kg	ND (1)	0.10	A369014
o-Xylene	mg/kg	ND (1)	0.10	A369014
Styrene	mg/kg	ND (2)	0.099	A369014
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	102		A369014
4-Bromofluorobenzene (sur.)	%	102		A369014
D10-o-Xylene (sur.)	%	98		A369014
D4-1,2-Dichloroethane (sur.)	%	96		A369014

RDL = Reportable Detection Limit
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.
(1) Detection limits raised based on MDL and sample weight used for analysis.

(2) Detection limits raised based on sample weight used for analysis.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

TOTAL PETROLEUM HYDROCARBONS (SOIL)

BV Labs ID		AGU748		
Sampling Date		2021/09/23 12:00		
COC Number		41701		
	UNITS	MWTF-SLP-2021-09	RDL	QC Batch
Ext. Pet. Hydrocarbon				
EPH (C10-C19)	mg/kg	ND (1)	280	A369132
EPH (C19-C32)	mg/kg	ND (1)	280	A369132
LEPH (C10-C19 less PAH)	mg/kg	ND	280	A367589
HEPH (C19-C32 less PAH)	mg/kg	ND	280	A367589
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	97		A369132

RDL = Reportable Detection Limit

ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

(1) Detection limits raised due to high moisture content, samples contain => 50% moisture.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

GENERAL COMMENTS

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

Package 1	16.0°C

Results relate only to the items tested.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
A367221	PL	QC Standard	Total Carbon	2021/09/28		95	%	75 - 125
			Total Sulphur (S)	2021/09/28		103	%	75 - 125
A367221	PL	Spiked Blank	Total Carbon	2021/09/28		97	%	75 - 125
			Total Sulphur (S)	2021/09/28		93	%	75 - 125
A367221	PL	Method Blank	Total Carbon	2021/09/28	ND, RDL=0.050		%	
			Total Sulphur (S)	2021/09/28	ND, RDL=0.060		%	
A367221	PL	RPD	Total Carbon	2021/09/28	1.0		%	30
			Total Sulphur (S)	2021/09/28	5.8		%	30
A368553	EC0	Matrix Spike	Extractable (Water) Methyl Sulfone (sur.)	2021/09/28		103	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/09/28		93	%	60 - 140
			Extractable (Water) Diethylene Glycol	2021/09/28		99	%	60 - 140
			Extractable (Water) Triethylene Glycol	2021/09/28		90	%	60 - 140
			Extractable (Water) Propylene Glycol	2021/09/28		98	%	60 - 140
A368553	EC0	Spiked Blank	Extractable (Water) Methyl Sulfone (sur.)	2021/09/28		108	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/09/28		94	%	60 - 140
			Extractable (Water) Diethylene Glycol	2021/09/28		103	%	60 - 140
			Extractable (Water) Triethylene Glycol	2021/09/28		99	%	60 - 140
			Extractable (Water) Propylene Glycol	2021/09/28		97	%	60 - 140
A368553	EC0	Method Blank	Extractable (Water) Methyl Sulfone (sur.)	2021/09/28		104	%	50 - 140
			Extractable (Water) Ethylene Glycol	2021/09/28	ND, RDL=10		mg/kg	
			Extractable (Water) Diethylene Glycol	2021/09/28	ND, RDL=10		mg/kg	
			Extractable (Water) Triethylene Glycol	2021/09/28	ND, RDL=10		mg/kg	
			Extractable (Water) Propylene Glycol	2021/09/28	ND, RDL=10		mg/kg	
A368553	EC0	RPD	Extractable (Water) Ethylene Glycol	2021/09/28	NC		%	50
			Extractable (Water) Diethylene Glycol	2021/09/28	NC		%	50
			Extractable (Water) Triethylene Glycol	2021/09/28	NC		%	50
			Extractable (Water) Propylene Glycol	2021/09/28	NC		%	50
A368957	JAX	Spiked Blank	Leachable Initial pH of Sample	2021/09/29		100	%	97 - 103
			Leachable pH after HCl	2021/09/29		99	%	97 - 103
			Leachable Final pH of Leachate	2021/09/29		100	%	97 - 103
A368957	JAX	RPD	Leachable Initial pH of Sample	2021/09/29	1.1		%	N/A
			Leachable pH after HCl	2021/09/29	0.55		%	N/A
			Leachable Final pH of Leachate	2021/09/29	3.0		%	N/A
A369014	RSU	Matrix Spike [AGU748-02]	1,4-Difluorobenzene (sur.)	2021/09/29		100	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/09/29		101	%	60 - 140
			D10-o-Xylene (sur.)	2021/09/29		95	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/09/29		96	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/09/29		88	%	50 - 140
			Benzene	2021/09/29		81	%	50 - 140
			Toluene	2021/09/29		82	%	50 - 140
			Ethylbenzene	2021/09/29		84	%	50 - 140
			m & p-Xylene	2021/09/29		82	%	50 - 140
			o-Xylene	2021/09/29		82	%	50 - 140
			Styrene	2021/09/29		82	%	50 - 140
A369014	RSU	Spiked Blank	1,4-Difluorobenzene (sur.)	2021/09/29		104	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/09/29		106	%	60 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			D10-o-Xylene (sur.)	2021/09/29		91	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/09/29		100	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/09/29		79	%	60 - 130
			Benzene	2021/09/29		77	%	60 - 130
			Toluene	2021/09/29		81	%	60 - 130
			Ethylbenzene	2021/09/29		82	%	60 - 130
			m & p-Xylene	2021/09/29		83	%	60 - 130
			o-Xylene	2021/09/29		82	%	60 - 130
			Styrene	2021/09/29		79	%	60 - 130
A369014	RSU	Method Blank	1,4-Difluorobenzene (sur.)	2021/09/29		101	%	60 - 140
			4-Bromofluorobenzene (sur.)	2021/09/29		101	%	60 - 140
			D10-o-Xylene (sur.)	2021/09/29		85	%	60 - 140
			D4-1,2-Dichloroethane (sur.)	2021/09/29		93	%	60 - 140
			Methyl-tert-butylether (MTBE)	2021/09/29	ND, RDL=0.040		mg/kg	
			Benzene	2021/09/29	ND, RDL=0.0050		mg/kg	
			Toluene	2021/09/29	ND, RDL=0.050		mg/kg	
			Ethylbenzene	2021/09/29	ND, RDL=0.010		mg/kg	
			m & p-Xylene	2021/09/29	ND, RDL=0.040		mg/kg	
			o-Xylene	2021/09/29	ND, RDL=0.040		mg/kg	
			Styrene	2021/09/29	ND, RDL=0.030		mg/kg	
A369014	RSU	RPD [AGU748-02]	Methyl-tert-butylether (MTBE)	2021/09/29	NC		%	50
			Benzene	2021/09/29	NC		%	50
			Toluene	2021/09/29	NC		%	50
			Ethylbenzene	2021/09/29	NC		%	50
			m & p-Xylene	2021/09/29	NC		%	50
			o-Xylene	2021/09/29	NC		%	50
			Styrene	2021/09/29	NC		%	50
A369047	APQ	Method Blank	Moisture	2021/09/29	ND, RDL=0.30		%	
A369047	APQ	RPD	Moisture	2021/09/29	1.7		%	20
A369132	SEH	Matrix Spike [AGU748-01]	O-TERPHENYL (sur.)	2021/09/29		102	%	60 - 140
			EPH (C10-C19)	2021/09/29		86	%	60 - 130
			EPH (C19-C32)	2021/09/29		96	%	60 - 130
A369132	SEH	Spiked Blank	O-TERPHENYL (sur.)	2021/09/29		102	%	60 - 140
			EPH (C10-C19)	2021/09/29		89	%	70 - 130
			EPH (C19-C32)	2021/09/29		99	%	70 - 130
A369132	SEH	Method Blank	O-TERPHENYL (sur.)	2021/09/29		100	%	60 - 140
			EPH (C10-C19)	2021/09/29	ND, RDL=100		mg/kg	
			EPH (C19-C32)	2021/09/29	ND, RDL=100		mg/kg	
A369132	SEH	RPD [AGU748-01]	EPH (C10-C19)	2021/09/29	NC		%	50
			EPH (C19-C32)	2021/09/29	NC		%	50
A369134	SJ1	Matrix Spike [AGU748-01]	D10-ANTHRACENE (sur.)	2021/09/29		114	%	50 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			D8-ACENAPHTHYLENE (sur.)	2021/09/29		110	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/09/29		91	%	50 - 140
			D9-Acridine (sur.)	2021/09/29		87	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/09/29		119	%	50 - 140
			Acenaphthene	2021/09/29		92	%	50 - 140
			Acenaphthylene	2021/09/29		111	%	50 - 140
			Anthracene	2021/09/29		102	%	50 - 140
			Benzo(a)anthracene	2021/09/29		100	%	50 - 140
			Benzo(b&j)fluoranthene	2021/09/29		94	%	50 - 140
			Benzo(k)fluoranthene	2021/09/29		84	%	50 - 140
			Benzo(g,h,i)perylene	2021/09/29		90	%	50 - 140
			Benzo(a)pyrene	2021/09/29		100	%	50 - 140
			Chrysene	2021/09/29		93	%	50 - 140
			Dibenz(a,h)anthracene	2021/09/29		91	%	50 - 140
			Fluoranthene	2021/09/29		110	%	50 - 140
			Fluorene	2021/09/29		101	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/09/29		94	%	50 - 140
			2-Methylnaphthalene	2021/09/29		100	%	50 - 140
			Naphthalene	2021/09/29		92	%	50 - 140
			Phenanthrene	2021/09/29		100	%	50 - 140
			Pyrene	2021/09/29		109	%	50 - 140
A369134	SJ1	Spiked Blank	D10-ANTHRACENE (sur.)	2021/09/29		116	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/09/29		111	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/09/29		95	%	50 - 140
			D9-Acridine (sur.)	2021/09/29		87	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/09/29		123	%	50 - 140
			Acenaphthene	2021/09/29		92	%	50 - 140
			Acenaphthylene	2021/09/29		114	%	50 - 140
			Anthracene	2021/09/29		104	%	50 - 140
			Benzo(a)anthracene	2021/09/29		103	%	50 - 140
			Benzo(b&j)fluoranthene	2021/09/29		98	%	50 - 140
			Benzo(k)fluoranthene	2021/09/29		85	%	50 - 140
			Benzo(g,h,i)perylene	2021/09/29		88	%	50 - 140
			Benzo(a)pyrene	2021/09/29		103	%	50 - 140
			Chrysene	2021/09/29		94	%	50 - 140
			Dibenz(a,h)anthracene	2021/09/29		89	%	50 - 140
			Fluoranthene	2021/09/29		109	%	50 - 140
			Fluorene	2021/09/29		100	%	50 - 140
			Indeno(1,2,3-cd)pyrene	2021/09/29		93	%	50 - 140
			2-Methylnaphthalene	2021/09/29		102	%	50 - 140
			Naphthalene	2021/09/29		95	%	50 - 140
			Phenanthrene	2021/09/29		100	%	50 - 140
			Pyrene	2021/09/29		107	%	50 - 140
A369134	SJ1	Method Blank	D10-ANTHRACENE (sur.)	2021/09/29		107	%	50 - 140
			D8-ACENAPHTHYLENE (sur.)	2021/09/29		102	%	50 - 140
			D8-NAPHTHALENE (sur.)	2021/09/29		83	%	50 - 140
			D9-Acridine (sur.)	2021/09/29		72	%	50 - 140
			TERPHENYL-D14 (sur.)	2021/09/29		111	%	50 - 140
			Acenaphthene	2021/09/29	ND, RDL=0.0050		mg/kg	
			Acenaphthylene	2021/09/29	ND, RDL=0.0050		mg/kg	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Anthracene	2021/09/29	ND, RDL=0.0040		mg/kg	
			Benzo(a)anthracene	2021/09/29	ND, RDL=0.010		mg/kg	
			Benzo(b&j)fluoranthene	2021/09/29	ND, RDL=0.010		mg/kg	
			Benzo(k)fluoranthene	2021/09/29	ND, RDL=0.010		mg/kg	
			Benzo(g,h,i)perylene	2021/09/29	ND, RDL=0.020		mg/kg	
			Benzo(a)pyrene	2021/09/29	ND, RDL=0.010		mg/kg	
			Chrysene	2021/09/29	ND, RDL=0.010		mg/kg	
			Dibenz(a,h)anthracene	2021/09/29	ND, RDL=0.020		mg/kg	
			Fluoranthene	2021/09/29	ND, RDL=0.010		mg/kg	
			Fluorene	2021/09/29	ND, RDL=0.010		mg/kg	
			Indeno(1,2,3-cd)pyrene	2021/09/29	ND, RDL=0.020		mg/kg	
			2-Methylnaphthalene	2021/09/29	ND, RDL=0.010		mg/kg	
			Naphthalene	2021/09/29	ND, RDL=0.010		mg/kg	
			Phenanthrene	2021/09/29	ND, RDL=0.010		mg/kg	
			Pyrene	2021/09/29	ND, RDL=0.010		mg/kg	
A369134	SJ1	RPD [AGU748-01]	Acenaphthene	2021/09/29	NC		%	50
			Acenaphthylene	2021/09/29	NC		%	50
			Anthracene	2021/09/29	NC		%	50
			Benzo(a)anthracene	2021/09/29	NC		%	50
			Benzo(b&j)fluoranthene	2021/09/29	NC		%	50
			Benzo(k)fluoranthene	2021/09/29	NC		%	50
			Benzo(g,h,i)perylene	2021/09/29	NC		%	50
			Benzo(a)pyrene	2021/09/29	NC		%	50
			Chrysene	2021/09/29	NC		%	50
			Dibenz(a,h)anthracene	2021/09/29	NC		%	50
			Fluoranthene	2021/09/29	NC		%	50
			Fluorene	2021/09/29	NC		%	50
			Indeno(1,2,3-cd)pyrene	2021/09/29	NC		%	50
			2-Methylnaphthalene	2021/09/29	5.2		%	50
			Naphthalene	2021/09/29	7.0		%	50
			Phenanthrene	2021/09/29	1.8		%	50
			Pyrene	2021/09/29	NC		%	50
A369630	MFP	Matrix Spike	Leachable Antimony (Sb)	2021/09/29		108	%	75 - 125
			Leachable Arsenic (As)	2021/09/29		101	%	75 - 125
			Leachable Barium (Ba)	2021/09/29		NC	%	75 - 125
			Leachable Beryllium (Be)	2021/09/29		101	%	75 - 125
			Leachable Boron (B)	2021/09/29		104	%	75 - 125
			Leachable Cadmium (Cd)	2021/09/29		103	%	75 - 125
			Leachable Chromium (Cr)	2021/09/29		104	%	75 - 125

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Cobalt (Co)	2021/09/29		102	%	75 - 125
			Leachable Copper (Cu)	2021/09/29		103	%	75 - 125
			Leachable Iron (Fe)	2021/09/29		96	%	75 - 125
			Leachable Lead (Pb)	2021/09/29		100	%	75 - 125
			Leachable Mercury (Hg)	2021/09/29		109	%	75 - 125
			Leachable Nickel (Ni)	2021/09/29		102	%	75 - 125
			Leachable Selenium (Se)	2021/09/29		101	%	75 - 125
			Leachable Silver (Ag)	2021/09/29		102	%	75 - 125
			Leachable Thallium (Tl)	2021/09/29		100	%	75 - 125
			Leachable Uranium (U)	2021/09/29		109	%	75 - 125
			Leachable Vanadium (V)	2021/09/29		107	%	75 - 125
			Leachable Zinc (Zn)	2021/09/29		102	%	75 - 125
			Leachable Zirconium (Zr)	2021/09/29		104	%	75 - 125
A369630	MFP	Spiked Blank	Leachable Antimony (Sb)	2021/09/29		107	%	80 - 120
			Leachable Arsenic (As)	2021/09/29		101	%	80 - 120
			Leachable Barium (Ba)	2021/09/29		110	%	80 - 120
			Leachable Beryllium (Be)	2021/09/29		101	%	80 - 120
			Leachable Boron (B)	2021/09/29		107	%	80 - 120
			Leachable Cadmium (Cd)	2021/09/29		102	%	80 - 120
			Leachable Chromium (Cr)	2021/09/29		103	%	80 - 120
			Leachable Cobalt (Co)	2021/09/29		103	%	80 - 120
			Leachable Copper (Cu)	2021/09/29		104	%	80 - 120
			Leachable Iron (Fe)	2021/09/29		108	%	80 - 120
			Leachable Lead (Pb)	2021/09/29		99	%	80 - 120
			Leachable Mercury (Hg)	2021/09/29		108	%	80 - 120
			Leachable Nickel (Ni)	2021/09/29		103	%	80 - 120
			Leachable Selenium (Se)	2021/09/29		100	%	80 - 120
			Leachable Silver (Ag)	2021/09/29		102	%	80 - 120
			Leachable Thallium (Tl)	2021/09/29		100	%	80 - 120
			Leachable Uranium (U)	2021/09/29		109	%	80 - 120
			Leachable Vanadium (V)	2021/09/29		105	%	80 - 120
			Leachable Zinc (Zn)	2021/09/29		106	%	80 - 120
			Leachable Zirconium (Zr)	2021/09/29		102	%	80 - 120
A369630	MFP	Method Blank	Leachable Antimony (Sb)	2021/09/29	ND, RDL=1.0		mg/L	
			Leachable Arsenic (As)	2021/09/29	ND, RDL=0.50		mg/L	
			Leachable Barium (Ba)	2021/09/29	ND, RDL=1.0		mg/L	
			Leachable Beryllium (Be)	2021/09/29	ND, RDL=0.50		mg/L	
			Leachable Boron (B)	2021/09/29	ND, RDL=1.0		mg/L	
			Leachable Cadmium (Cd)	2021/09/29	ND, RDL=0.10		mg/L	
			Leachable Chromium (Cr)	2021/09/29	ND, RDL=0.50		mg/L	
			Leachable Cobalt (Co)	2021/09/29	ND, RDL=1.0		mg/L	
			Leachable Copper (Cu)	2021/09/29	ND, RDL=1.0		mg/L	
			Leachable Iron (Fe)	2021/09/29	ND, RDL=1.0		mg/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Lead (Pb)	2021/09/29	ND, RDL=0.50		mg/L	
			Leachable Mercury (Hg)	2021/09/29	ND, RDL=0.020		mg/L	
			Leachable Nickel (Ni)	2021/09/29	ND, RDL=0.50		mg/L	
			Leachable Selenium (Se)	2021/09/29	ND, RDL=0.10		mg/L	
			Leachable Silver (Ag)	2021/09/29	ND, RDL=0.50		mg/L	
			Leachable Thallium (Tl)	2021/09/29	ND, RDL=0.50		mg/L	
			Leachable Uranium (U)	2021/09/29	ND, RDL=0.20		mg/L	
			Leachable Vanadium (V)	2021/09/29	ND, RDL=1.0		mg/L	
			Leachable Zinc (Zn)	2021/09/29	ND, RDL=1.0		mg/L	
			Leachable Zirconium (Zr)	2021/09/29	ND, RDL=1.0		mg/L	
A369630	MFP	RPD	Leachable Antimony (Sb)	2021/09/29	NC		%	35
			Leachable Arsenic (As)	2021/09/29	NC		%	35
			Leachable Barium (Ba)	2021/09/29	NC		%	35
			Leachable Beryllium (Be)	2021/09/29	NC		%	35
			Leachable Boron (B)	2021/09/29	NC		%	35
			Leachable Cadmium (Cd)	2021/09/29	NC		%	35
			Leachable Chromium (Cr)	2021/09/29	NC		%	35
			Leachable Cobalt (Co)	2021/09/29	NC		%	35
			Leachable Copper (Cu)	2021/09/29	NC		%	35
			Leachable Iron (Fe)	2021/09/29	NC		%	35
			Leachable Lead (Pb)	2021/09/29	NC		%	35
			Leachable Mercury (Hg)	2021/09/29	NC		%	35
			Leachable Nickel (Ni)	2021/09/29	NC		%	35
			Leachable Selenium (Se)	2021/09/29	NC		%	35
			Leachable Silver (Ag)	2021/09/29	NC		%	35
			Leachable Thallium (Tl)	2021/09/29	NC		%	35
			Leachable Uranium (U)	2021/09/29	NC		%	35
			Leachable Vanadium (V)	2021/09/29	NC		%	35
			Leachable Zinc (Zn)	2021/09/29	NC		%	35
			Leachable Zirconium (Zr)	2021/09/29	NC		%	35
A370144	PC5	Matrix Spike [AGU748-01]	Total Aluminum (Al)	2021/10/03		NC	%	75 - 125
			Total Antimony (Sb)	2021/10/03		107	%	75 - 125
			Total Arsenic (As)	2021/10/03		97	%	75 - 125
			Total Barium (Ba)	2021/10/03		NC	%	75 - 125
			Total Beryllium (Be)	2021/10/03		101	%	75 - 125
			Total Bismuth (Bi)	2021/10/03		96	%	75 - 125
			Total Boron (B)	2021/10/03		104	%	75 - 125
			Total Cadmium (Cd)	2021/10/03		98	%	75 - 125
			Total Calcium (Ca)	2021/10/03		NC	%	75 - 125
			Total Chromium (Cr)	2021/10/03		118	%	75 - 125
			Total Cobalt (Co)	2021/10/03		108	%	75 - 125
			Total Copper (Cu)	2021/10/03		96	%	75 - 125

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Iron (Fe)	2021/10/03		NC	%	75 - 125
			Total Lead (Pb)	2021/10/03		97	%	75 - 125
			Total Lithium (Li)	2021/10/03		104	%	75 - 125
			Total Magnesium (Mg)	2021/10/03		NC	%	75 - 125
			Total Manganese (Mn)	2021/10/03		NC	%	75 - 125
			Total Mercury (Hg)	2021/10/03		100	%	75 - 125
			Total Molybdenum (Mo)	2021/10/03		108	%	75 - 125
			Total Nickel (Ni)	2021/10/03		NC	%	75 - 125
			Total Phosphorus (P)	2021/10/03		111	%	75 - 125
			Total Potassium (K)	2021/10/03		110	%	75 - 125
			Total Selenium (Se)	2021/10/03		108	%	75 - 125
			Total Silver (Ag)	2021/10/03		98	%	75 - 125
			Total Sodium (Na)	2021/10/03		91	%	75 - 125
			Total Strontium (Sr)	2021/10/03		NC	%	75 - 125
			Total Thallium (Tl)	2021/10/03		98	%	75 - 125
			Total Tin (Sn)	2021/10/03		103	%	75 - 125
			Total Titanium (Ti)	2021/10/03		109	%	75 - 125
			Total Tungsten (W)	2021/10/03		90	%	75 - 125
			Total Uranium (U)	2021/10/03		106	%	75 - 125
			Total Vanadium (V)	2021/10/03		121	%	75 - 125
			Total Zinc (Zn)	2021/10/03		NC	%	75 - 125
			Total Zirconium (Zr)	2021/10/03		106	%	75 - 125
A370144	PC5	QC Standard	Total Aluminum (Al)	2021/10/03		96	%	70 - 130
			Total Antimony (Sb)	2021/10/03		102	%	70 - 130
			Total Arsenic (As)	2021/10/03		106	%	70 - 130
			Total Barium (Ba)	2021/10/03		100	%	70 - 130
			Total Beryllium (Be)	2021/10/03		108	%	70 - 130
			Total Cadmium (Cd)	2021/10/03		99	%	70 - 130
			Total Calcium (Ca)	2021/10/03		108	%	70 - 130
			Total Chromium (Cr)	2021/10/03		110	%	70 - 130
			Total Cobalt (Co)	2021/10/03		105	%	70 - 130
			Total Copper (Cu)	2021/10/03		112	%	70 - 130
			Total Iron (Fe)	2021/10/03		116	%	70 - 130
			Total Lead (Pb)	2021/10/03		120	%	70 - 130
			Total Lithium (Li)	2021/10/03		95	%	70 - 130
			Total Magnesium (Mg)	2021/10/03		105	%	70 - 130
			Total Manganese (Mn)	2021/10/03		109	%	70 - 130
			Total Mercury (Hg)	2021/10/03		116	%	70 - 130
			Total Molybdenum (Mo)	2021/10/03		107	%	70 - 130
			Total Nickel (Ni)	2021/10/03		114	%	70 - 130
			Total Phosphorus (P)	2021/10/03		97	%	70 - 130
			Total Potassium (K)	2021/10/03		87	%	70 - 130
			Total Silver (Ag)	2021/10/03		97	%	70 - 130
			Total Sodium (Na)	2021/10/03		98	%	70 - 130
			Total Strontium (Sr)	2021/10/03		95	%	70 - 130
			Total Thallium (Tl)	2021/10/03		89	%	70 - 130
			Total Tin (Sn)	2021/10/03		104	%	70 - 130
			Total Uranium (U)	2021/10/03		106	%	70 - 130
			Total Vanadium (V)	2021/10/03		111	%	70 - 130
			Total Zinc (Zn)	2021/10/03		105	%	70 - 130
A370144	PC5	Spiked Blank	Total Aluminum (Al)	2021/10/03		103	%	75 - 125
			Total Antimony (Sb)	2021/10/03		118	%	75 - 125
			Total Arsenic (As)	2021/10/03		100	%	75 - 125

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Barium (Ba)	2021/10/03		99	%	75 - 125
			Total Beryllium (Be)	2021/10/03		104	%	75 - 125
			Total Bismuth (Bi)	2021/10/03		104	%	75 - 125
			Total Boron (B)	2021/10/03		111	%	75 - 125
			Total Cadmium (Cd)	2021/10/03		99	%	75 - 125
			Total Calcium (Ca)	2021/10/03		106	%	75 - 125
			Total Chromium (Cr)	2021/10/03		106	%	75 - 125
			Total Cobalt (Co)	2021/10/03		107	%	75 - 125
			Total Copper (Cu)	2021/10/03		108	%	75 - 125
			Total Iron (Fe)	2021/10/03		113	%	75 - 125
			Total Lead (Pb)	2021/10/03		105	%	75 - 125
			Total Lithium (Li)	2021/10/03		98	%	75 - 125
			Total Magnesium (Mg)	2021/10/03		100	%	75 - 125
			Total Manganese (Mn)	2021/10/03		103	%	75 - 125
			Total Mercury (Hg)	2021/10/03		99	%	75 - 125
			Total Molybdenum (Mo)	2021/10/03		106	%	75 - 125
			Total Nickel (Ni)	2021/10/03		107	%	75 - 125
			Total Phosphorus (P)	2021/10/03		103	%	75 - 125
			Total Potassium (K)	2021/10/03		81	%	75 - 125
			Total Selenium (Se)	2021/10/03		110	%	75 - 125
			Total Silver (Ag)	2021/10/03		103	%	75 - 125
			Total Sodium (Na)	2021/10/03		89	%	75 - 125
			Total Strontium (Sr)	2021/10/03		92	%	75 - 125
			Total Thallium (Tl)	2021/10/03		104	%	75 - 125
			Total Tin (Sn)	2021/10/03		101	%	75 - 125
			Total Titanium (Ti)	2021/10/03		105	%	75 - 125
			Total Tungsten (W)	2021/10/03		102	%	75 - 125
			Total Uranium (U)	2021/10/03		110	%	75 - 125
			Total Vanadium (V)	2021/10/03		106	%	75 - 125
			Total Zinc (Zn)	2021/10/03		96	%	75 - 125
			Total Zirconium (Zr)	2021/10/03		98	%	75 - 125
A370144	PC5	Method Blank	Total Aluminum (Al)	2021/10/03	ND, RDL=100		mg/kg	
			Total Antimony (Sb)	2021/10/03	ND, RDL=0.10		mg/kg	
			Total Arsenic (As)	2021/10/03	ND, RDL=0.20		mg/kg	
			Total Barium (Ba)	2021/10/03	ND, RDL=0.10		mg/kg	
			Total Beryllium (Be)	2021/10/03	ND, RDL=0.20		mg/kg	
			Total Bismuth (Bi)	2021/10/03	ND, RDL=0.10		mg/kg	
			Total Boron (B)	2021/10/03	ND, RDL=1.0		mg/kg	
			Total Cadmium (Cd)	2021/10/03	ND, RDL=0.050		mg/kg	
			Total Calcium (Ca)	2021/10/03	ND, RDL=100		mg/kg	
			Total Chromium (Cr)	2021/10/03	ND, RDL=0.50		mg/kg	
			Total Cobalt (Co)	2021/10/03	ND, RDL=0.10		mg/kg	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Copper (Cu)	2021/10/03	ND, RDL=0.50		mg/kg	
			Total Iron (Fe)	2021/10/03	ND, RDL=100		mg/kg	
			Total Lead (Pb)	2021/10/03	ND, RDL=0.10		mg/kg	
			Total Lithium (Li)	2021/10/03	ND, RDL=0.50		mg/kg	
			Total Magnesium (Mg)	2021/10/03	ND, RDL=100		mg/kg	
			Total Manganese (Mn)	2021/10/03	ND, RDL=0.20		mg/kg	
			Total Mercury (Hg)	2021/10/03	ND, RDL=0.050		mg/kg	
			Total Molybdenum (Mo)	2021/10/03	ND, RDL=0.10		mg/kg	
			Total Nickel (Ni)	2021/10/03	ND, RDL=0.50		mg/kg	
			Total Phosphorus (P)	2021/10/03	ND, RDL=10		mg/kg	
			Total Potassium (K)	2021/10/03	ND, RDL=100		mg/kg	
			Total Selenium (Se)	2021/10/03	ND, RDL=0.50		mg/kg	
			Total Silver (Ag)	2021/10/03	ND, RDL=0.050		mg/kg	
			Total Sodium (Na)	2021/10/03	ND, RDL=100		mg/kg	
			Total Strontium (Sr)	2021/10/03	ND, RDL=0.10		mg/kg	
			Total Thallium (Tl)	2021/10/03	ND, RDL=0.050		mg/kg	
			Total Tin (Sn)	2021/10/03	ND, RDL=0.10		mg/kg	
			Total Titanium (Ti)	2021/10/03	ND, RDL=1.0		mg/kg	
			Total Tungsten (W)	2021/10/03	ND, RDL=0.50		mg/kg	
			Total Uranium (U)	2021/10/03	ND, RDL=0.050		mg/kg	
			Total Vanadium (V)	2021/10/03	ND, RDL=1.0		mg/kg	
			Total Zinc (Zn)	2021/10/03	ND, RDL=1.0		mg/kg	
			Total Zirconium (Zr)	2021/10/03	ND, RDL=0.50		mg/kg	
A370144	PC5	RPD [AGU748-01]	Total Aluminum (Al)	2021/10/03	3.7		%	40
			Total Antimony (Sb)	2021/10/03	2.5		%	30
			Total Arsenic (As)	2021/10/03	1.4		%	30
			Total Barium (Ba)	2021/10/03	1.9		%	40
			Total Beryllium (Be)	2021/10/03	0.11		%	30
			Total Bismuth (Bi)	2021/10/03	NC		%	30
			Total Boron (B)	2021/10/03	7.2		%	30
			Total Cadmium (Cd)	2021/10/03	5.4		%	30

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Calcium (Ca)	2021/10/03	0.83		%	30
			Total Chromium (Cr)	2021/10/03	1.9		%	30
			Total Cobalt (Co)	2021/10/03	2.6		%	30
			Total Copper (Cu)	2021/10/03	2.0		%	30
			Total Iron (Fe)	2021/10/03	2.4		%	30
			Total Lead (Pb)	2021/10/03	1.8		%	40
			Total Lithium (Li)	2021/10/03	5.3		%	30
			Total Magnesium (Mg)	2021/10/03	3.1		%	30
			Total Manganese (Mn)	2021/10/03	2.3		%	30
			Total Mercury (Hg)	2021/10/03	NC		%	40
			Total Molybdenum (Mo)	2021/10/03	0.40		%	40
			Total Nickel (Ni)	2021/10/03	1.5		%	30
			Total Phosphorus (P)	2021/10/03	3.6		%	30
			Total Potassium (K)	2021/10/03	3.8		%	40
			Total Selenium (Se)	2021/10/03	0.85		%	30
			Total Silver (Ag)	2021/10/03	1.9		%	40
			Total Sodium (Na)	2021/10/03	1.6		%	40
			Total Strontium (Sr)	2021/10/03	5.5		%	40
			Total Thallium (Tl)	2021/10/03	2.0		%	30
			Total Tin (Sn)	2021/10/03	0.26		%	40
			Total Titanium (Ti)	2021/10/03	24		%	40
			Total Tungsten (W)	2021/10/03	NC		%	40
			Total Uranium (U)	2021/10/03	2.3		%	30
			Total Vanadium (V)	2021/10/03	4.8		%	30
			Total Zinc (Zn)	2021/10/03	3.8		%	30
			Total Zirconium (Zr)	2021/10/03	5.0		%	40
A370298	JHC	QC Standard	Soluble (2:1) pH	2021/09/29		99	%	98 - 102
A370298	JHC	Spiked Blank	Soluble (2:1) pH	2021/09/29		100	%	97 - 103
A379316	MPE	Matrix Spike [AGU748-01]	Total Oil and grease	2021/10/07		94	%	65 - 135
A379316	MPE	Spiked Blank	Total Oil and grease	2021/10/07		98	%	65 - 135
A379316	MPE	Method Blank	Total Oil and grease	2021/10/07	ND, RDL=100		ug/g	
A379316	MPE	RPD [AGU748-01]	Total Oil and grease	2021/10/07	NC (1)		%	30

N/A = Not Applicable

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

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

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

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

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

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

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

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

(1) Detection limits raised due to high moisture content.

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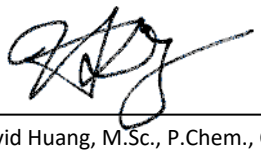
BV Labs Job #: C172143
Report Date: 2021/10/07

Peace River Hydro Partners
Site Location: SITE C
Your P.O. #: 48179
Sampler Initials: AC

VALIDATION SIGNATURE PAGE

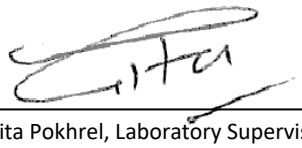
The analytical data and all QC contained in this report were reviewed and validated by:



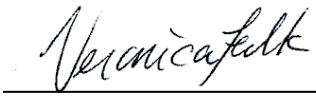
David Huang, M.Sc., P.Chem., QP, Scientific Services Manager



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Gita Pokhrel, Laboratory Supervisor



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Custody Tracking Form

W41701

Please use this form for custody tracking when submitting the work instructions via eCOC (electronic Chain of Custody). Please ensure your form has a barcode or a Bureau Veritas eCOC confirmation number in the top right hand side. This number links your electronic submission to your samples. This form should be placed in the cooler with your samples.

First Sample: MWTF-SLP-2021-09
Last Sample: MWTF-SLP-2021-09
Sample Count: 1

Relinquished By				Received By			
Axel Chore	[signature]	Date	2021/09/23	Dmalmloff	[signature]	Date	2021/09/23
		Time (24 HR)	13:00			Time (24 HR)	13:30
		Date		Reem Phillipos	[signature]	Date	2021/09/24
		Time (24 HR)				Time (24 HR)	06:20
		Date				Date	
		Time (24 HR)				Time (24 HR)	

Unless otherwise agreed to, submissions and use of services are governed by Bureau Veritas' standard terms and conditions which can be found at www.bvna.com.

Triage Information

Sampled By (Print)

# of Coolers/Pkgs: 1

Rush ☐ Immediate Test ☐ Food Residue ☐

Micro ☐ Food Chemistry ☐

***** LABORATORY USE ONLY *****

Received At FSJ Lab Comments:

Labeled By 23-Sep-21 13:30

Verified By Debbie Nordbruget C172143

AV2 INS-0060

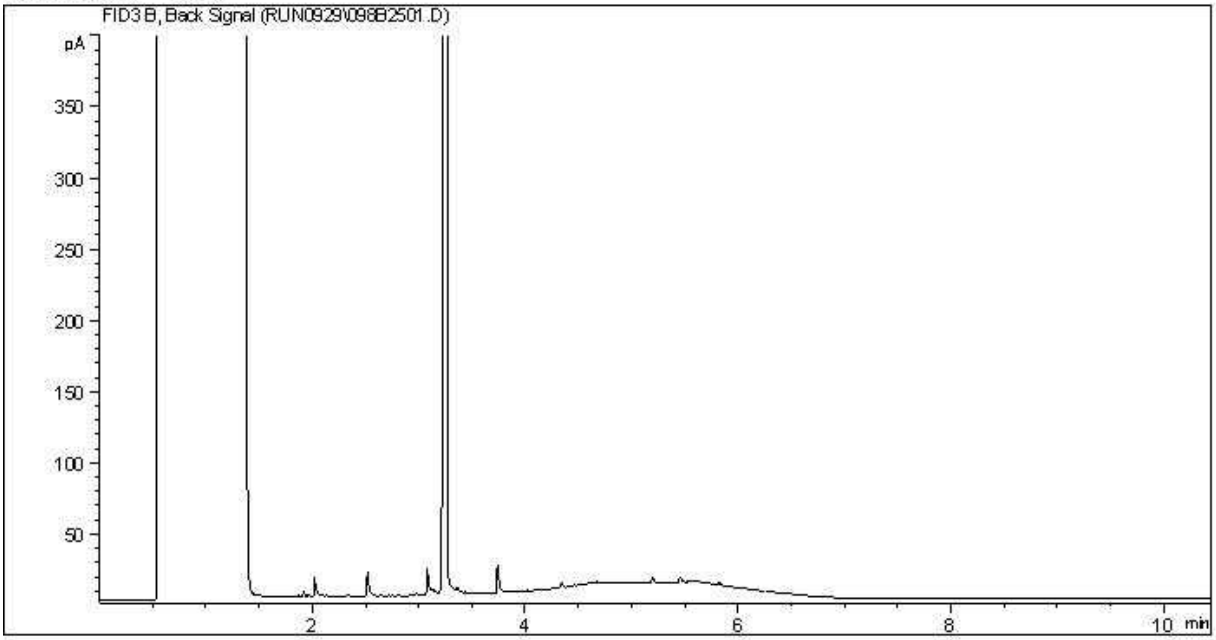
Custody Seal		Cooling Media	Temperature °C		
Present (Y/N)	Intact (Y/N)	Present (Y/N)	1	2	3
NO		YES	16	16	16
Y	Y	Y	8	7	7
Drinking Water Metals Preservation Check Done (Circle)				YES	NO

COR FCD-00383/3

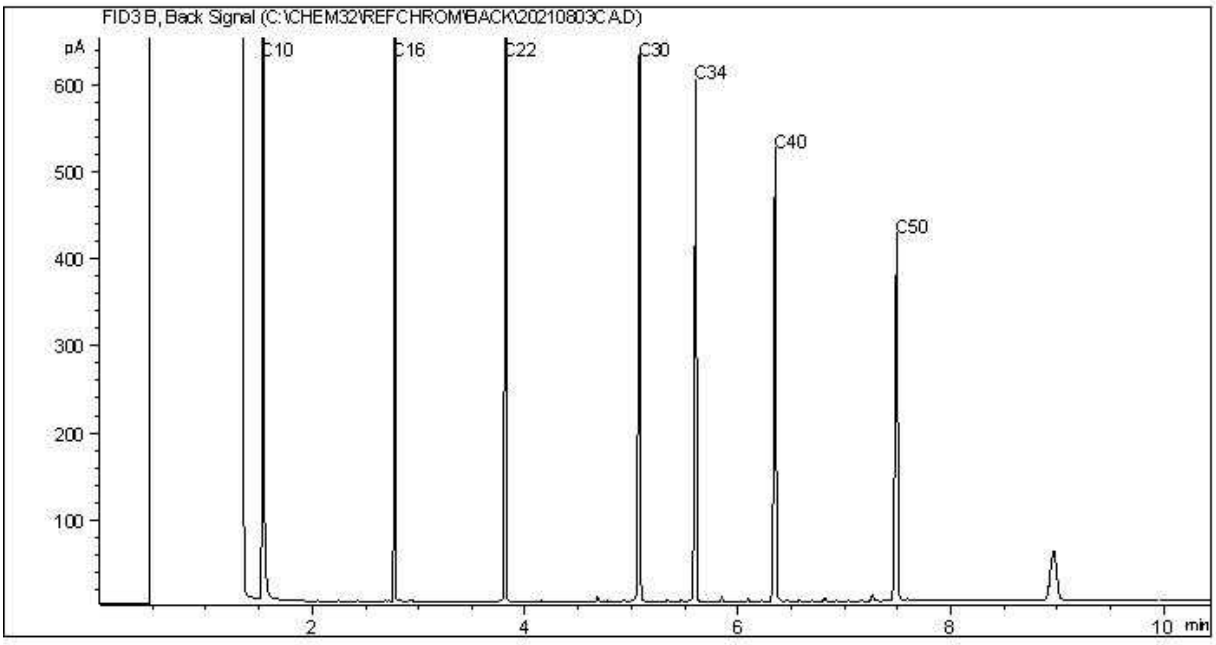
Page 1 of 1

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC20



Carbon Range Distribution - Reference Chromatogram



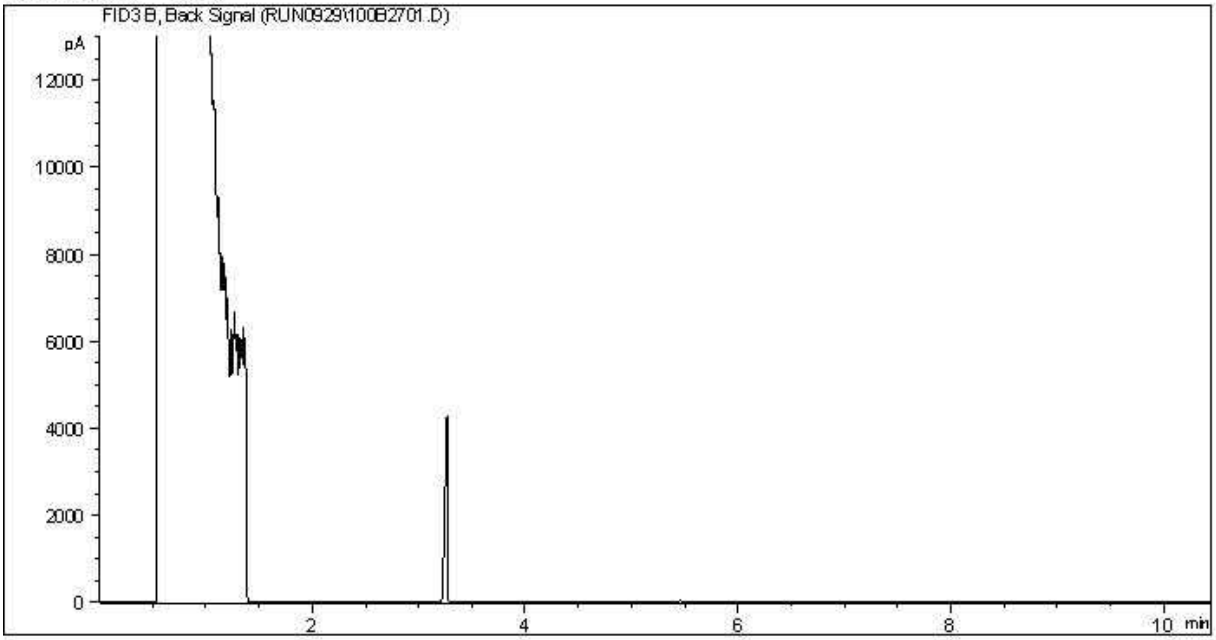
TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

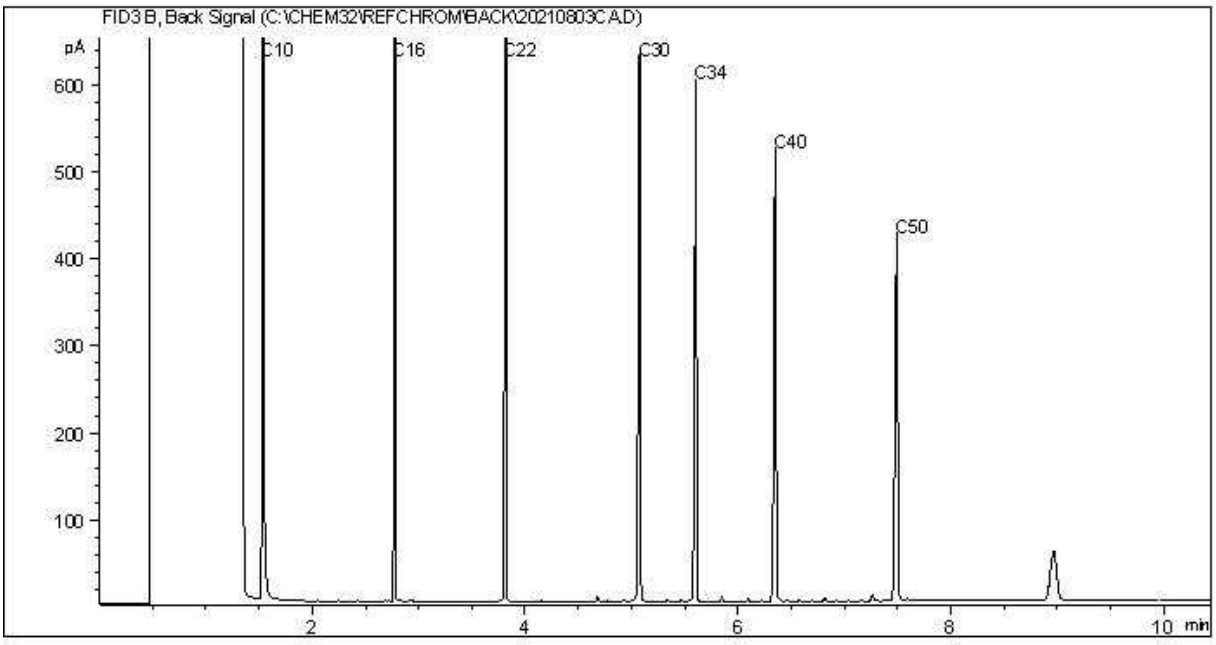
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BC Hydrocarbons in Soil by GC/FID Chromatogram

Instrument: GC20



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

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

eCOC: W41701

Project Information:	C172143
Job Received:	2021/09/23 13:30
Results Required By:	2021/09/30 13:00
Expected Arrival:	2021/09/23 13:00
Submitted By:	Axel Chore
Submitted To:	Burnaby ENV: 4606 Canada Way

Invoice Information

Attn: ACCOUNTS PAYABLE
Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC , V1J 4H6
Email to:
accounts.payable@prhp.ca

Report Information

Attn: Kael Hanak
Peace River Hydro Partners
Box 6100 Site C Dam
Fort St John , BC , V1J 4H6
Email to:
kael.hanak@prhp.ca

Project Information

Quote #:	B61674, C10269
PO/AFE#:	48179
Project #:	
Site Location:	SITE C

Analytical Summary

A: 2021/09/30 13:00

Client Sample ID	Clnt Ref	Sampling Date/Time	Matrix	#Cont	BC BTEX/VPH in Soil	BC LEPH/HEPH Petroleum Hydrocarbons	CSR/CCME Metals in Soil with Hg	TCLP Metals	Carbon, Nitrogen, Sulphur - Combustion	Glycols in Soil by GC/FID	Total Oil and Grease
MWTF-SLP-2021-09	1	2021/09/23 12:00	SOIL	1	A	A	A	A	A	A	A

Deadlines are estimates only and are subject to change. Please refer to your Job Confirmation report for final due dates.

Submission Information

# of Samples:	1
Details:	Please use Scenario 14891

Appendix 3-A: 2021 In Situ Continuous Sonde Measurement Water Quality Data (i.e., continuously logged measurements from in-pond fixed probes)

PEACE RIVER
HYDRO PARTNERS

RSEM-R6W													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
1-Jan	96	-0.070	-0.050	-0.040	980	1100	1200	7.9	7.9	7.9	2.0	23	610
2-Jan	96	-0.060	-0.059	-0.050	1100	1100	1200	7.8	7.9	7.9	1.2	4.1	27
3-Jan	96	-0.080	-0.060	-0.050	960	1100	1200	7.8	7.8	7.9	1.0	6.9	43
4-Jan	96	-0.060	-0.019	0.010	1100	1100	1100	7.7	7.7	7.8	0.91	2.3	4.4
5-Jan	96	-0.030	-0.011	0.020	1100	1100	1100	7.7	7.7	7.7	1.1	2.5	4.1
6-Jan	96	-0.040	-0.022	0.080	1000	1100	1100	7.7	7.7	7.7	1.2	2.8	4.9
7-Jan	96	-0.050	-0.037	0.030	1000	1000	1000	7.7	7.7	7.8	0.47	2.8	7.2
8-Jan	96	-0.050	-0.023	0.060	1000	1000	1000	7.7	7.8	7.8	0.20	2.7	4.9
9-Jan	96	-0.050	-0.026	0.17	1000	1000	1000	7.8	7.8	7.8	2.0	3.5	5.3
10-Jan	96	-0.050	-0.026	0.19	1000	1000	1000	7.8	7.8	7.8	2.2	3.8	5.5
11-Jan	96	-0.050	-0.032	0.28	1000	1000	1000	7.7	7.8	7.8	1.7	3.8	6.0
12-Jan	96	-0.050	-0.025	0.080	1000	1000	1000	7.7	7.8	7.8	1.6	3.5	6.3
13-Jan	96	-0.050	-0.021	0.14	1000	1000	1100	7.7	7.8	7.8	1.5	3.2	5.5
14-Jan	96	-0.050	-0.031	0.090	1000	1000	1000	7.7	7.8	7.8	1.8	3.5	5.4
15-Jan	96	-0.050	-0.032	0.070	1000	1000	1000	7.8	7.8	7.9	1.7	3.4	5.2
16-Jan	96	-0.040	-0.027	0.0	960	980	1000	7.9	7.9	8.0	2.0	3.8	5.8
17-Jan	96	-0.040	-0.028	0.010	950	960	970	8.0	8.0	8.0	2.2	4.2	6.3
18-Jan	96	-0.040	-0.020	0.010	950	960	970	8.0	8.0	8.1	2.0	3.9	6.1
19-Jan	96	-0.040	-0.021	0.0	960	970	980	8.0	8.0	8.1	1.8	3.3	5.0
20-Jan	96	-0.040	-0.023	0.020	960	970	980	7.9	8.0	8.0	1.2	2.9	4.8
21-Jan	96	-0.040	0.012	0.13	280	970	1000	7.8	7.9	8.0	0.42	2.3	4.3
22-Jan	96	0.0	0.039	0.080	990	1000	1100	7.9	7.9	8.0	0.79	2.3	4.3
23-Jan	96	-0.070	-0.019	0.020	890	1100	1100	7.9	8.1	8.2	1.2	6.2	78
24-Jan	96	-0.10	-0.037	-0.010	250	1100	1200	8.1	8.2	8.3	4.0	6.5	9.5
25-Jan	96	-0.090	-0.051	-0.040	930	1100	1200	8.1	8.1	8.3	4.2	6.8	33
26-Jan	96	-0.050	-0.033	0.080	1100	1100	1200	8.1	8.1	8.1	3.3	5.7	8.0
27-Jan	96	-0.050	-0.040	0.010	1100	1100	1200	8.1	8.1	8.1	3.7	5.9	7.9
28-Jan	96	-0.040	-0.031	0.12	1100	1200	1200	8.1	8.1	8.2	3.9	5.8	7.6
29-Jan	96	-1.4	-0.048	0.030	1100	1200	1200	8.1	8.1	8.2	4.0	6.0	9.5
30-Jan	95	-0.060	-0.035	0.050	800	1200	1200	8.1	8.1	8.1	4.2	7.2	12
31-Jan	96	-0.050	-0.043	0.0	1100	1200	1200	8.1	8.1	8.2	4.1	6.0	12
1-Feb	96	-0.060	-0.051	-0.020	1200	1200	1200	8.1	8.1	8.2	3.5	5.4	7.7
2-Feb	96	-0.060	-0.058	-0.030	1200	1200	1200	8.1	8.1	8.2	3.3	5.3	7.5
3-Feb	96	-0.060	-0.054	-0.010	1200	1200	1200	8.1	8.1	8.2	2.9	5.0	7.1
4-Feb	96	-0.060	-0.049	-0.010	1200	1200	1200	8.1	8.1	8.2	2.9	4.8	6.7
5-Feb	96	-0.060	-0.048	-0.010	1200	1200	1200	8.1	8.1	8.2	2.5	4.5	7.2
6-Feb	96	-0.060	-0.052	-0.030	1100	1200	1200	8.1	8.1	8.2	2.2	4.3	6.6
7-Feb	95	-0.050	-0.027	0.010	1100	1100	1100	8.2	8.2	8.3	2.9	5.2	7.4
8-Feb	96	-0.010	0.015	0.030	1000	1000	1100	8.3	8.4	8.4	3.9	6.5	9.5
9-Feb	96	-0.060	-0.014	0.020	540	940	1000	8.3	8.4	8.4	4.6	14	170
10-Feb	96	-0.060	-0.042	-0.030	710	940	1000	8.1	8.2	8.3	4.7	10	88
11-Feb	96	-0.060	-0.032	-0.010	800	920	950	7.9	8.0	8.1	4.2	7.4	22
12-Feb	96	-0.060	-0.025	-0.010	800	900	910	7.8	7.8	7.9	4.5	8.3	150
13-Feb	96	-0.060	-0.032	-0.020	860	890	900	7.7	7.7	7.8	5.1	7.2	9.4
14-Feb	96	-0.12	-0.038	-0.030	0.11	860	880	7.6	7.7	7.8	6.1	8.2	12
15-Feb	96	-0.060	-0.047	-0.040	820	870	880	7.6	7.6	7.7	7.1	9.7	38
16-Feb	96	-0.050	-0.043	-0.010	870	870	880	7.6	7.6	7.6	7.6	9.7	12
17-Feb	96	-0.070	-0.055	-0.030	75	560	870	7.5	7.5	7.9	7.0	27	800
18-Feb	96	-0.060	-0.045	-0.030	430	800	870	7.5	7.5	7.5	6.8	32	480
19-Feb	96	-0.040	-0.031	0.0	850	860	870	7.5	7.5	7.5	7.3	10	13
20-Feb	96	-0.050	-0.037	-0.020	840	850	860	7.5	7.5	7.5	7.4	10	13
21-Feb	96	-0.050	-0.042	0.0	840	840	850	7.5	7.5	7.5	7.0	9.8	13
22-Feb	96	-0.050	-0.044	-0.020	830	840	840	7.5	7.5	7.6	5.4	8.6	13
23-Feb	96	-0.060	-0.046	-0.030	830	840	850	7.5	7.5	7.5	5.0	7.6	11
24-Feb	96	-0.060	-0.050	-0.030	840	850	850	7.5	7.5	7.6	4.7	7.5	11
25-Feb	96	-0.060	-0.056	-0.050	850	850	860	7.5	7.6	7.6	3.0	5.9	8.8
26-Feb	96	-0.060	-0.057	-0.050	850	860	880	7.6	7.6	7.6	2.8	5.1	7.7
27-Feb	96	-0.060	-0.059	-0.050	870	900	930	7.6	7.6	7.6	2.7	4.9	8.5
28-Feb	96	-0.060	-0.057	-0.050	920	950	990	7.6	7.6	7.7	2.8	5.7	11
29-Feb	96	-0.060	0.016	0.20	510	630	990	7.7	8.1	8.3	0.0	13	40
1-Mar	96	-0.040	-0.039	-0.030	450	470	520	8.3	8.4	8.4	0.0	1.2	3.0
2-Mar	96	-0.040	-0.036	-0.020	370	390	440	8.4	8.4	8.4	0.0	0.89	2.1
3-Mar	96	-0.040	-0.031	-0.020	210	280	380	8.3	8.4	8.4	0.0	0.87	2.0
4-Mar	96	-0.030	-0.029	-0.020	190	200	210	8.3	8.3	8.4	0.0	0.86	1.9

RSEM-R6W													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
5-Mar	96	-0.030	-0.023	-0.010	180	210	220	8.3	8.3	8.4	0.0	0.92	2.1
6-Mar	96	-0.030	-0.023	0.0	210	220	230	8.3	8.3	8.4	0.0	0.99	2.4
7-Mar	96	-0.030	-0.023	0.0	220	230	230	8.3	8.3	8.4	0.0	1.0	2.3
8-Mar	96	-0.030	-0.024	0.0	230	230	230	8.3	8.4	8.4	0.0	1.0	2.3
9-Mar	96	-0.030	-0.020	0.0	230	240	250	8.3	8.3	8.4	0.0	1.1	2.8
10-Mar	96	-0.030	-0.026	-0.010	250	260	270	8.3	8.4	8.4	0.0	1.3	6.7
11-Mar	96	-0.030	-0.023	0.0	270	280	290	8.3	8.4	8.4	0.0	1.2	2.8
12-Mar	96	-0.040	-0.028	-0.010	270	280	290	8.4	8.4	8.5	0.0	1.1	2.7
13-Mar	95	-0.040	-0.033	0.0	49	270	340	8.4	8.4	8.5	0.0	4.6	41
14-Mar	96	-0.040	-0.038	-0.030	340	380	410	8.4	8.4	8.5	1.0	3.2	6.6
15-Mar	96	-0.040	-0.040	-0.030	360	390	410	8.4	8.5	8.6	0.0	1.7	4.2
16-Mar	96	-0.040	-0.031	-0.010	290	320	350	8.6	8.7	8.7	0.0	0.72	1.8
17-Mar	96	-0.040	-0.034	-0.020	260	270	290	8.6	8.7	8.7	0.0	0.84	3.0
18-Mar	96	-0.040	-0.025	0.020	210	240	260	8.5	8.6	8.7	0.0	0.82	2.0
19-Mar	96	-0.040	-0.031	-0.030	190	200	210	8.5	8.5	8.5	0.0	0.94	2.0
20-Mar	96	-0.040	-0.031	-0.020	190	190	200	8.5	8.5	8.6	0.0	1.1	2.3
21-Mar	96	-0.040	-0.029	-0.010	190	200	200	8.4	8.5	8.6	0.0	1.2	3.1
22-Mar	96	-0.040	-0.034	-0.030	190	200	200	8.4	8.4	8.5	0.0	1.3	2.5
23-Mar	96	-0.040	-0.033	-0.020	200	200	200	8.4	8.4	8.5	0.0	2.9	9.7
24-Mar	96	-0.040	-0.034	-0.030	200	210	210	8.3	8.4	8.4	3.9	6.8	11
25-Mar	96	-0.040	-0.034	-0.030	190	200	210	8.3	8.4	8.4	5.6	8.2	11
26-Mar	96	-0.040	-0.029	0.020	190	210	260	8.3	8.4	8.5	4.1	10	73
27-Mar	95	-0.030	-0.0068	0.16	200	210	230	8.4	8.5	8.5	0.45	3.6	20
28-Mar	96	-0.020	0.0092	0.16	200	270	350	8.5	8.6	8.7	0.0	2.0	5.8
29-Mar	96	-0.010	0.16	1.5	310	330	400	8.6	8.6	8.7	0.0	2.5	6.4
30-Mar	96	0.20	2.3	3.6	320	470	520	8.6	8.6	8.6	0.12	13	55
31-Mar	95	-0.090	-0.085	-0.080	950	960	960	8.2	8.3	8.3	2.3	4.4	73
01-Apr	96	2.8	3.6	4.3	450	500	510	8.6	8.7	8.7	8.7	38	75
02-Apr	96	3.1	3.8	4.7	500	520	550	8.7	8.7	8.7	21	33	51
03-Apr	92	2.8	4.1	5.4	530	570	650	8.1	8.6	8.8	17	90	430
04-Apr	93	4.2	4.9	6.2	590	630	660	8.1	8.3	8.5	26	240	1100
05-Apr	83	4.1	4.5	4.9	580	620	650	8.2	8.4	8.6	23	64	340
06-Apr	91	3.9	4.3	4.9	570	590	620	8.4	8.5	8.6	20	33	190
07-Apr	84	3.8	4.5	5.3	470	580	590	8.5	8.6	8.7	17	67	2400
08-Apr	75	3.1	4.2	5.2	580	580	590	8.5	8.6	8.7	16	33	130
09-Apr	94	3.6	4.2	4.8	580	590	640	8.7	8.7	8.7	24	34	67
10-Apr	96	3.2	3.7	4.4	510	550	600	8.5	8.6	8.9	29	43	55
11-Apr	96	2.6	3.7	4.8	520	530	530	8.4	8.5	8.7	20	28	42
12-Apr	96	3.7	5.2	7.0	500	520	540	8.5	8.6	8.7	22	53	100
13-Apr	96	5.2	6.2	7.2	400	510	520	8.6	8.6	8.7	44	75	110
14-Apr	48	5.3	5.7	6.8	500	520	550	8.5	8.6	8.7	60	83	170
15-Apr													
16-Apr													
17-Apr													
18-Apr													
19-Apr													
20-Apr													
21-Apr	35	6.8	7.3	7.7	510	520	520	8.6	8.7	8.8	43	52	60
22-Apr	96	5.5	6.9	9.0	470	490	520	8.7	8.8	8.9	28	41	66
23-Apr	96	5.4	6.6	8.0	450	460	470	8.7	8.8	8.9	16	26	40
24-Apr	96	5.8	7.2	9.4	440	480	510	8.6	8.7	8.8	20	30	88
25-Apr	96	5.9	7.5	9.1	440	490	520	8.6	8.7	8.8	19	30	45
26-Apr	96	6.6	7.8	9.8	350	470	530	8.4	8.6	8.7	11	22	73
27-Apr	96	4.7	6.1	7.3	470	490	510	8.4	8.6	8.7	11	15	22
28-Apr	96	3.6	4.1	4.7	260	430	480	8.6	8.7	8.7	9.9	15	24
29-Apr	96	4.2	5.2	6.3	18	320	490	8.6	8.6	8.7	12	20	29
30-Apr	96	6.0	7.8	9.4	13	460	560	8.6	8.6	8.7	16	23	36
01-May	96	8.8	9.5	11	460	490	500	8.6	8.7	8.8	7.8	14	25
02-May	96	8.5	9.4	11	420	440	470	8.6	8.7	8.8	4.0	9.2	24
03-May	96	8.7	9.6	11	420	450	490	8.7	8.7	8.8	17	26	62
04-May	92	8.5	10	17	0	520	630	6.1	8.5	8.8	0.05	27	110
05-May	96	9.1	11	14	600	630	660	8.3	8.4	8.4	8.8	16	55
06-May	96	10	11	13	620	660	690	8.3	8.3	8.4	11	82	2300
07-May	96	11	12	13	620	680	710	8.3	8.3	8.4	18	25	83

RSEM-R6W													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
08-May	96	10	11	12	670	710	740	8.3	8.4	8.4	16	21	62
09-May	96	9.6	11	12	700	730	790	8.3	8.4	8.4	10	18	96
10-May	96	9.9	11	13	700	730	780	8.3	8.4	8.4	6.5	22	320
11-May	96	11	13	15	670	710	740	8.3	8.3	8.4	5.4	8.9	18
12-May	96	11	13	15	650	680	720	8.3	8.3	8.4	7.5	11	17
13-May	96	11	13	16	610	640	670	8.3	8.4	8.4	4.4	9.5	15
14-May	96	11	13	16	610	630	670	8.3	8.4	8.4	6.1	10	14
15-May	96	12	13	14	620	650	680	8.4	8.4	8.5	3.9	8.4	14
16-May	96	12	13	14	600	640	680	8.4	8.5	8.5	4.1	7.8	10
17-May	96	12	13	14	590	610	650	8.4	8.5	8.5	3.7	17	850
18-May	96	11	11	12	600	640	670	8.4	8.5	8.6	7.6	22	150
19-May	96	9.9	12	15	650	680	710	8.5	8.5	8.6	8.0	16	39
20-May	96	11	13	15	680	710	730	8.4	8.5	8.6	2.2	9.7	76
21-May	96	12	14	17	660	700	730	8.4	8.5	8.5	3.5	7.8	14
22-May	96	13	14	16	680	710	730	8.4	8.5	8.5	4.2	8.6	22
23-May	96	13	15	18	680	710	750	8.4	8.4	8.5	2.6	5.7	15
24-May	96	14	15	16	690	720	730	8.4	8.4	8.5	2.5	6.5	21
25-May	96	11	12	14	690	720	770	8.3	8.4	8.5	8.1	24	46
26-May	96	10	11	13	730	800	870	8.4	8.5	8.5	17	26	58
27-May	96	11	12	14	810	850	880	8.3	8.4	8.5	8.7	18	64
28-May	96	12	13	15	800	860	900	8.3	8.3	8.4	5.6	8.6	19
29-May	96	12	14	16	840	870	910	8.3	8.4	8.4	4.5	8.9	210
30-May	96	13	15	16	850	880	910	8.3	8.4	8.4	5.6	7.9	16
31-May	96	14	15	17	800	860	940	8.4	8.4	8.5	6.0	8.7	14
01-Jun	96	15	17	18	790	810	840	8.4	8.4	8.5	4.7	7.8	15
02-Jun	96	17	19	20	790	860	920	8.4	8.5	8.5	4.9	7.6	14
03-Jun	96	18	19	19	840	880	920	8.5	8.5	8.5	5.2	8.3	14
04-Jun	96	17	17	18	530	720	860	8.1	8.5	8.6	5.8	17	260
05-Jun	96	16	16	17	570	600	640	8.6	8.6	8.7	8.4	9.9	17
06-Jun	96	15	16	18	520	550	570	8.6	8.6	8.7	8.6	12	24
07-Jun	96	15	16	17	500	510	530	8.6	8.6	8.7	8.4	12	70
08-Jun	96	14	16	18	510	540	560	8.5	8.6	8.7	11	17	27
09-Jun	96	14	16	18	540	560	570	8.5	8.6	8.7	11	16	27
10-Jun	96	14	15	17	560	590	630	8.5	8.6	8.7	8.8	13	27
11-Jun	96	14	16	17	590	600	620	8.5	8.6	8.6	8.5	11	33
12-Jun	96	15	16	17	560	580	600	8.5	8.6	8.7	9.2	11	16
13-Jun	96	15	17	19	560	570	580	8.5	8.6	8.6	7.0	10	15
14-Jun	96	15	17	21	540	560	580	8.5	8.6	8.7	7.6	10	22
15-Jun	96	15	15	16	500	530	560	8.5	8.5	8.6	6.2	8.2	12
16-Jun	96	13	14	15	460	490	510	8.5	8.6	8.6	8.1	22	69
17-Jun	96	12	13	14	510	560	620	8.5	8.6	8.6	22	36	66
18-Jun	96	13	15	17	600	630	680	8.5	8.5	8.6	11	18	28
19-Jun	96	13	16	18	590	630	650	8.4	8.5	8.6	8.7	12	20
20-Jun	96	14	17	21	530	570	630	8.4	8.5	8.6	6.7	9	21
21-Jun	96	16	19	22	470	510	540	8.5	8.5	8.6	6.6	9.6	24
22-Jun	96	17	18	21	440	470	500	8.5	8.6	8.7	7.3	11	28
23-Jun	96	16	18	20	420	440	480	8.5	8.6	8.7	11	15	210
24-Jun	96	16	18	19	390	410	450	8.5	8.6	8.7	14	17	46
25-Jun	96	15	19	22	350	380	400	8.5	8.6	8.7	12	16	24
26-Jun	96	17	20	24	260	360	380	8.5	8.5	8.7	12	16	25
27-Jun	96	18	21	24	230	360	390	8.4	8.5	8.6	11	18	81
28-Jun	96	20	23	26	190	360	410	8.4	8.5	8.6	14	25	71
29-Jun	96	21	23	26	120	350	400	8.4	8.5	8.6	17	39	130
30-Jun	96	20	23	26	190	350	380	8.2	8.5	10	17	69	190
01-Jul	95	20	21	21	330	380	380	8.2	8.5	8.6	7.8	51	170
02-Jul	96	19	20	21	370	390	410	8.5	8.6	8.7	8.8	19	68
03-Jul	96	18	19	20	380	400	430	8.6	8.6	8.7	12	22	76
04-Jul	96	17	18	20	380	400	410	8.5	8.6	8.7	10	23	68
05-Jul	96	17	19	21	380	410	440	8.6	8.6	8.7	12	24	65
06-Jul	96	17	20	23	230	380	470	8.6	8.6	8.7	11	25	99
07-Jul	96	19	21	24	380	430	480	8.6	8.7	8.7	10	26	94
08-Jul	96	20	22	24	380	450	510	8.6	8.7	8.8	8.5	21	140
09-Jul	96	20	22	25	370	460	510	8.6	8.7	8.8	6.3	11	52
10-Jul	96	20	21	22	420	480	520	8.6	8.7	8.8	4.4	6.1	18

RSEM-R6W													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
11-Jul	96	19	20	22	480	500	520	8.6	8.7	8.8	4.3	5.7	10
12-Jul	96	19	21	24	470	510	560	8.6	8.7	8.8	4.2	5.8	11
13-Jul	96	20	22	25	470	530	580	8.6	8.7	8.8	3.2	4.9	9.7
14-Jul	96	21	22	23	490	540	570	8.7	8.7	8.8	3.0	4.3	8.3
15-Jul	96	21	22	23	480	520	540	8.7	8.7	8.8	3.5	4.5	6.8
16-Jul	96	17	19	21	470	490	520	8.6	8.6	8.8	3.8	7.2	27
17-Jul	55	15	15	17	470	470	480	8.6	8.6	8.6	7.7	9.6	15
18-Jul	96	14	15	16	470	480	520	8.5	8.6	8.6	9.1	14	17
19-Jul	96	14	16	19	430	490	520	8.5	8.6	8.6	7.3	9.8	20
20-Jul	96	15	16	17	460	490	510	8.5	8.6	8.6	6.1	9	67
21-Jul	96	15	16	18	330	470	510	8.5	8.6	8.6	5.8	23	140
22-Jul	96	14	15	16	470	500	520	8.5	8.6	8.6	36	61	91
23-Jul	96	14	15	17	520	530	540	8.5	8.6	8.6	7.9	20	41
24-Jul	96	15	16	18	530	560	600	8.5	8.6	8.6	6.9	10	22
25-Jul	96	15	17	19	590	610	680	8.5	8.6	8.6	5.6	8.2	13
26-Jul	96	15	17	18	630	660	680	8.5	8.5	8.6	4.8	7.6	33
27-Jul	96	15	17	19	630	660	690	8.5	8.6	8.7	5.0	7.9	20
28-Jul	96	15	17	19	600	620	640	8.5	8.6	8.7	7.3	11	22
29-Jul	96	16	18	21	570	590	610	8.6	8.6	8.7	7.2	9.5	17
30-Jul	96	17	19	22	550	560	580	8.5	8.6	8.7	7.0	11	29
31-Jul	96	18	20	23	540	560	590	8.5	8.6	8.7	6.9	11	28
01-Aug	96	19	19	21	550	570	590	8.5	8.6	8.6	7.0	11	46
02-Aug	96	18	19	20	580	590	610	8.5	8.5	8.5	5.8	9.9	22
03-Aug	96	18	19	21	600	610	630	8.4	8.5	8.6	6.6	9.4	25
04-Aug	96	18	20	23	600	610	620	8.5	8.6	8.7	6.8	9.7	28
05-Aug	96	19	21	23	590	610	630	8.4	8.6	8.7	5.7	10	25
06-Aug	96	19	20	21	610	620	640	8.6	8.7	8.7	8.1	13	46
07-Aug	96	17	18	19	630	650	670	8.6	8.7	8.7	7.1	9.0	17
08-Aug	96	16	18	21	660	680	700	8.6	8.6	8.7	5.6	8.0	47
09-Aug	96	17	18	19	680	700	720	8.7	8.7	8.8	5.0	7.4	41
10-Aug	96	17	17	17	710	720	750	8.6	8.7	8.8	4.6	6.5	26
11-Aug	96	16	17	19	730	730	740	8.7	8.7	8.8	4.1	5.8	27
12-Aug	96	16	18	20	710	730	740	8.8	8.8	8.9	4.0	7.0	37
13-Aug	96	17	19	21	700	710	730	8.8	8.8	8.9	4.1	6.9	33
14-Aug	96	19	19	20	630	700	750	8.8	8.8	8.9	4.5	20	530
15-Aug	96	19	19	20	560	700	710	8.7	8.8	8.9	4.2	8.3	55
16-Aug	96	18	18	19	690	700	700	8.7	8.8	8.9	4.0	5.1	16
17-Aug	96	17	18	19	660	690	700	8.8	8.8	8.9	3.7	16	200
18-Aug	96	17	17	18	660	680	700	8.8	8.9	8.9	3.9	160	3900
19-Aug	96	17	18	19	590	660	690	8.8	8.9	9.0	3.4	17	290
20-Aug	96	17	18	19	560	640	690	8.8	8.9	9.0	3.3	26	330
21-Aug	49	17	17	17	480	600	660	8.8	8.9	9.0	3.8	10	85
22-Aug	62	14	15	16	540	600	610	8.6	8.7	8.8	23	30	57
23-Aug	96	13	14	16	610	620	650	8.6	8.6	8.7	17	22	32
24-Aug	96	13	15	16	640	670	690	8.4	8.5	8.6	9.1	17	27
25-Aug	96	14	16	17	660	710	770	8.5	8.5	8.6	5.7	11	230
26-Aug	96	15	16	17	580	740	800	8.6	8.6	8.7	5.2	6.8	30
27-Aug	96	15	17	18	730	770	790	8.7	8.7	8.8	4.4	41	570
28-Aug	96	16	16	17	720	770	800	8.8	8.8	8.9	4.4	11	150
29-Aug	96	16	16	17	700	760	790	8.8	8.8	8.9	4.6	11	140
30-Aug	96	15	16	16	730	760	780	8.7	8.8	8.9	4.8	6.2	9.1
31-Aug	96	14	15	15	750	780	840	8.7	8.8	8.9	5.1	8.1	19
01-Sep	96	14	14	15	770	810	830	8.7	8.7	8.8	5.9	8	26
02-Sep	96	13	15	17	800	820	840	8.7	8.7	8.9	4.2	8	52
03-Sep	96	14	15	17	760	810	840	8.8	8.8	8.9	1.7	9.5	120
04-Sep	96	15	15	16	770	830	880	8.8	8.9	8.9	1.5	2.9	17
05-Sep	96	15	15	16	790	820	890	8.8	8.9	8.9	1.6	2.6	5.3
06-Sep	96	15	15	16	770	790	810	8.9	8.9	9.0	1.4	2.1	4.4
07-Sep	96	14	15	16	740	770	780	8.9	9.0	9.0	1.1	1.6	2.7
08-Sep	96	15	15	16	710	730	750	9.0	9.0	9.1	0.99	1.9	4.2
09-Sep	96	15	15	16	680	700	730	8.9	9.0	9.1	1.3	1.9	4.6
10-Sep	93	14	15	16	650	680	710	8.6	8.9	9.1	0.75	8.0	170
11-Sep	96	15	15	16	650	680	690	7.9	8.5	8.7	0.49	4.5	92
12-Sep	96	14	15	16	670	690	710	7.8	8.1	8.5	0.22	0.79	3.8

RSEM-R6W													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
13-Sep	96	14	14	15	680	690	710	8.5	8.6	8.7	0.19	0.74	4.5
14-Sep	96	13	14	14	670	680	690	8.7	8.7	8.8	0.24	0.99	3.2
15-Sep	96	12	12	13	670	690	700	8.6	8.7	8.7	1.3	2.8	11
16-Sep	96	11	12	13	690	710	720	8.5	8.6	8.6	2.7	3.9	7
17-Sep	96	11	11	11	700	710	720	8.5	8.6	8.7	2.6	4.2	7.4
18-Sep	96	10	11	11	670	690	710	8.4	8.5	8.5	2.8	5.3	9.1
19-Sep	96	10	11	12	640	660	680	8.4	8.4	8.5	3.6	5.3	8.3
20-Sep	96	10	11	12	620	640	690	8.4	8.5	8.5	3.3	5.3	13
21-Sep	96	11	12	12	580	610	630	8.5	8.5	8.6	3.6	5.0	12
22-Sep	96	12	12	13	580	590	600	8.5	8.6	8.7	2.7	4.1	8
23-Sep	96	11	11	12	560	570	580	8.5	8.6	8.7	2.3	3.9	7.1
24-Sep	96	11	11	12	550	560	570	8.6	8.6	8.7	2.7	3.9	6
25-Sep	96	11	12	12	530	550	560	8.5	8.6	8.7	2.4	4.0	6.5
26-Sep	96	11	12	12	540	550	560	8.6	8.7	8.7	1.6	3.6	8.5
27-Sep	96	11	11	12	540	550	550	8.6	8.6	8.7	2.2	3.5	8.9
28-Sep	96	11	11	12	540	550	550	8.5	8.5	8.6	2.6	4.5	10
29-Sep	96	10	11	11	540	550	560	8.4	8.5	8.6	3.5	4.7	12
30-Sep	96	10	10	11	550	550	560	8.3	8.5	8.6	4.2	5.2	7.3
01-Oct	96	9.8	10	10	550	550	560	8.4	8.5	8.6	3.8	4.9	10
02-Oct	96	9.4	9.8	10	550	550	560	8.5	8.6	8.7	2.9	4.2	5.8
03-Oct	96	8.3	8.9	9.4	550	560	560	8.6	8.7	8.8	2.7	3.7	9.4
04-Oct	96	7.4	8.1	8.8	550	560	560	8.7	8.8	8.9	2.0	3.2	6.4
05-Oct	96	6.6	7.1	7.7	550	550	560	8.8	8.8	8.9	1.7	2.4	4.2
06-Oct	96	6.1	6.6	6.9	540	550	560	8.8	8.8	8.9	1.0	2.5	59
07-Oct	96	5.8	6.2	7.6	0	520	550	8.8	8.9	9.5	0	1.2	2.6
08-Oct	66	5.7	6.1	6.9	540	550	550	8.9	8.9	9.0	0.54	0.85	1.9
09-Oct	45	6.9	7.1	7.3	530	540	570	7.2	7.4	8.6	0.51	3.7	26
10-Oct	96	6.1	6.4	6.9	530	550	590	7.1	7.2	7.5	0.20	0.93	4.3
11-Oct	96	5.2	5.8	6.6	540	550	560	7.3	7.5	8.1	0.36	0.94	4.4
12-Oct	96	5.1	5.3	5.6	530	540	550	7.7	8	8.2	0.48	1.1	2
13-Oct	96	4.6	5.1	5.6	530	530	540	8.1	8.3	8.7	0.34	1.1	2.5
14-Oct	96	4.6	5.1	5.6	530	530	540	8.6	8.7	8.8	1.1	2.0	12
15-Oct	96	5.0	5.5	6.0	530	530	540	8.8	8.8	8.9	1.4	2.2	4.4
16-Oct	96	5.3	5.4	5.7	530	540	540	8.0	8.6	8.9	1.5	2.2	3.2
17-Oct	96	4.6	5.1	5.3	530	540	540	7.7	7.8	8.0	1.1	1.8	5.2
18-Oct	96	4.0	4.2	4.6	530	540	550	7.7	8.0	8.2	1.3	1.8	3.8
19-Oct	96	3.9	4.1	4.3	530	540	550	8.0	8.3	8.5	1.3	1.9	2.9
20-Oct	96	4.1	4.2	4.3	530	540	540	8.2	8.4	8.6	1.3	2.0	5.3
21-Oct	96	4.1	4.3	4.8	520	530	540	8.5	8.6	8.7	1.3	1.9	2.8
22-Oct	96	4.1	4.4	4.9	510	520	530	8.4	8.5	8.6	1.6	2.7	4.1
23-Oct	96	4.5	4.7	5.0	490	500	510	8.2	8.3	8.5	2.4	3.5	4.8
24-Oct	96	4.8	5.0	5.3	480	480	490	8.0	8.1	8.2	2.8	3.9	5.4
25-Oct	96	5.3	5.5	5.8	470	470	480	8.0	8.0	8.1	3.2	4.2	8.9
26-Oct	96	5.4	5.7	6.0	470	470	480	8.0	8.1	8.1	3.1	4.0	6.3
27-Oct	96	5.4	5.7	5.9	460	470	470	8.1	8.2	8.3	2.6	4.9	9.7
28-Oct	96	4.6	5.1	5.6	460	460	470	8.3	8.3	8.5	2.3	4.6	18
29-Oct	96	3.1	3.8	4.6	450	460	460	8.5	8.5	8.6	1.7	2.9	9.1
30-Oct	96	1.8	2.4	3.2	450	460	470	8.5	8.5	8.6	1.7	2.5	3.7
31-Oct	96	1.7	2.2	2.9	460	470	470	8.5	8.5	8.6	1.4	2.1	3.6
01-Nov	96	2.5	3.0	3.5	460	470	480	8.4	8.4	8.5	1.7	2.6	5.6
02-Nov	96	1.7	2.7	3.6	470	480	490	8.3	8.4	8.4	1.5	2.6	4.6
03-Nov	96	1.3	1.8	3.1	470	480	490	8.2	8.3	8.4	1.1	2.2	3.4
04-Nov	96	1.6	2.2	2.9	440	470	480	8.0	8.1	8.2	1.1	3.0	9.3
05-Nov	96	2.5	2.8	3.3	430	460	470	7.9	7.9	8.1	1.5	2.8	3.9
06-Nov	96	2.5	3.1	3.9	440	460	470	7.8	7.9	7.9	1.2	2.4	4
07-Nov	96	2.3	2.9	4.2	460	470	480	7.8	7.9	7.9	0.62	2.1	3.5
08-Nov	96	2.0	2.4	3.1	470	490	500	7.9	7.9	7.9	1.5	2.3	3.9
09-Nov	96	1.6	1.9	2.5	480	500	520	7.8	7.9	7.9	1.1	2.1	3.6
10-Nov	96	1.3	1.6	2.4	500	520	530	7.8	7.8	7.9	1.1	2.2	10
11-Nov	96	0.89	1.1	1.8	520	540	540	7.7	7.8	7.8	1.5	2.5	3.7
12-Nov	96	1.1	1.4	2.1	530	540	550	7.7	7.7	7.8	0.99	2.3	3.2
13-Nov	96	1.3	1.6	2.3	530	540	550	7.7	7.8	7.8	1.4	2.2	3.2
14-Nov	96	1.0	1.3	1.6	540	550	600	7.7	7.7	7.8	1.2	2.0	2.9
15-Nov	96	0.99	1.2	1.5	550	560	560	7.6	7.7	7.7	1.0	1.6	2.6

RSEM-R6W													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
16-Nov	96	0.88	1.0	1.4	560	570	580	7.5	7.7	7.7	0.59	1.3	2.1
17-Nov	96	0.79	1.5	2.3	580	600	620	7.3	7.4	7.6	1.3	2.6	6
18-Nov	96	1.5	1.7	2.2	600	610	620	7.3	7.3	7.4	2.0	5.0	8.4
19-Nov	96	1.4	1.5	2.0	610	630	640	7.3	7.3	7.4	3.5	5.3	8.4
20-Nov	96	0.78	1.3	1.9	630	630	640	7.3	7.3	7.3	4.1	5.4	7.4
21-Nov	96	0.8	0.89	1.2	630	640	640	7.3	7.3	7.3	4.6	5.5	9.3
22-Nov	96	0.82	0.9	1.0	630	640	650	7.2	7.3	7.3	4.9	6.2	8.4
23-Nov	96	0.62	0.76	1.0	640	650	660	7.3	7.3	7.3	4.9	6.5	9.1
24-Nov	96	0.39	0.51	0.64	650	660	670	7.2	7.3	7.3	5.4	7.3	11
25-Nov	96	0.15	0.31	1.1	640	660	670	7.2	7.2	7.3	7.4	9.8	15
26-Nov	96	0.15	0.32	0.55	640	650	660	7.3	7.3	7.3	8.0	10	14
27-Nov	96	0.32	0.41	0.59	650	660	670	7.2	7.3	7.3	8.0	9.8	13
28-Nov	96	0.06	0.26	0.53	650	660	670	7.3	7.3	7.4	7.5	10	15
29-Nov	96	0.02	0.088	0.32	650	670	680	7.3	7.3	7.4	6.2	8.9	13
30-Nov	96	0.01	0.063	0.36	660	670	680	7.3	7.3	7.3	6.1	8.6	12
01-Dec	96	0.06	0.13	0.45	660	670	680	7.3	7.3	7.4	6.3	8.5	12
02-Dec	96	0.13	0.18	0.55	670	680	680	7.3	7.3	7.4	6.9	9.3	12
03-Dec	96	0.11	0.28	1.2	680	690	700	7.3	7.4	7.4	7.9	9.5	12
04-Dec	96	0.2	0.32	1.3	690	700	710	7.3	7.4	7.4	7.5	9.4	15
05-Dec	96	0.17	0.37	1.2	690	710	720	7.4	7.4	7.4	5.5	8.3	15
06-Dec	96	0.13	0.28	1.2	710	730	740	7.4	7.4	7.4	5.9	7.4	11
07-Dec	96	0.04	0.20	0.94	720	730	740	7.4	7.4	7.4	5.2	7.1	12
08-Dec	96	-0.08	0.052	1.2	720	730	760	7.4	7.4	7.5	3.5	5.6	7.9
09-Dec	96	-0.09	-0.028	0.43	730	740	750	7.4	7.4	7.5	4.0	5.6	7.6
10-Dec	96	-0.09	0.022	0.5	740	750	760	7.4	7.4	7.4	3.7	5.3	7.1
11-Dec	96	-0.08	-0.031	0.34	740	750	760	7.4	7.4	7.5	3.2	4.8	6.9
12-Dec	96	-0.07	0.046	0.94	750	760	780	7.4	7.4	7.4	3.3	4.8	7.6
13-Dec	96	-0.07	0.0018	0.92	760	770	790	7.4	7.4	7.4	2.8	4.1	6.1
14-Dec	96	-0.07	0.03	0.56	760	780	800	7.3	7.4	7.4	2.6	3.9	9.2
15-Dec	96	-0.06	0.099	1.1	780	800	820	7.3	7.4	7.4	2.2	3.9	20
16-Dec	96	-0.04	0.097	0.83	800	810	830	7.3	7.3	7.4	2.1	3.2	5.4
17-Dec	96	-0.11	0.048	0.89	810	840	850	7.2	7.2	7.3	2.4	4.0	16
18-Dec	96	-0.11	-0.043	1.0	800	860	870	7.0	7.1	7.2	3.0	5.9	12
19-Dec	96	-1.1	-0.073	0.43	0.59	620	860	6.3	7.1	7.6	0	12	97
20-Dec	96	-0.1	-0.085	0.01	740	820	840	7.1	7.1	7.1	4.9	7.1	15
21-Dec	96	-0.1	-0.056	0.16	800	820	840	7.1	7.1	7.2	3.8	5.9	13
22-Dec	96	-0.09	-0.072	0.14	810	830	850	7.1	7.1	7.2	3.2	5.3	14
23-Dec	96	-0.09	-0.071	0.12	820	830	860	7.1	7.1	7.2	3.1	4.6	10
24-Dec	96	-0.09	-0.07	0.08	820	830	850	7.1	7.2	7.2	2.8	4.3	9.4
25-Dec	96	-0.09	-0.056	0.14	830	840	860	7.1	7.1	7.2	2.9	4.2	8.7
26-Dec	96	-0.1	-0.064	0.17	840	850	890	7.1	7.1	7.2	2.9	4.5	16
27-Dec	96	-0.11	-0.065	0.1	800	860	900	7.1	7.1	7.1	3.2	4.6	9.7
28-Dec	96	-0.11	-0.088	0.09	800	830	860	7.0	7.0	7.1	5.7	10	16
29-Dec	96	-0.14	-0.097	0.03	390	730	810	6.9	7.0	7.1	7.4	10	40
30-Dec	96	-0.1	-0.09	0.01	670	800	850	7.0	7.0	7.0	6.3	8.5	30
31-Dec	96	-0.11	-0.085	0.08	580	760	850	6.8	6.9	7.1	7.1	13	58

*Based on temperature readings

RSEM-R6E													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
1-Jan	96	-0.060	0.13	0.39	0.11	760	820	6.8	7.9	7.9	0.87	3.3	21
2-Jan	96	0.10	0.13	0.15	740	760	780	7.8	7.9	7.9	0.78	2.0	5.0
3-Jan	96	0.080	0.12	0.19	710	760	790	7.8	7.9	7.9	0.58	2.6	55
4-Jan	96	0.11	0.12	0.27	740	760	790	7.8	7.9	7.9	0.56	1.8	11
5-Jan	96	0.11	0.12	0.20	740	770	790	7.8	7.9	7.9	0.69	1.8	2.5
6-Jan	96	0.10	0.12	0.15	710	750	790	7.8	7.9	7.9	0.64	1.7	3.5
7-Jan	96	0.12	0.15	0.21	670	700	740	7.8	7.8	7.9	0.68	1.9	2.9
8-Jan	96	0.13	0.14	0.18	660	710	760	7.8	7.9	7.9	0.51	1.7	2.6
9-Jan	96	0.13	0.15	0.18	730	760	790	7.8	7.9	7.9	0.58	1.7	5.2
10-Jan	96	0.12	0.14	0.20	750	770	800	7.9	7.9	7.9	0.65	1.6	2.6
11-Jan	96	0.11	0.12	0.15	750	770	780	7.9	7.9	7.9	0.69	1.8	2.6
12-Jan	96	0.11	0.12	0.18	720	750	770	7.9	7.9	7.9	0.55	1.9	3.3
13-Jan	96	0.11	0.11	0.15	720	740	770	7.9	7.9	7.9	0.51	1.6	2.5
14-Jan	96	0.11	0.12	0.17	730	750	780	7.9	7.9	7.9	0.73	1.7	2.6
15-Jan	96	0.11	0.12	0.18	740	760	780	7.9	7.9	7.9	0.63	1.8	2.8
16-Jan	96	0.10	0.12	0.28	700	730	770	7.9	7.9	7.9	0.44	1.6	2.5
17-Jan	96	0.10	0.12	0.15	680	710	740	7.9	7.9	7.9	0.60	1.8	2.7
18-Jan	96	0.10	0.12	0.20	690	720	750	7.9	7.9	7.9	0.57	1.7	2.5
19-Jan	96	0.10	0.12	0.13	710	730	760	7.9	7.9	7.9	0.58	1.7	2.6
20-Jan	96	0.10	0.10	0.14	690	730	750	7.9	7.9	8.0	0.55	1.9	22
21-Jan	96	0.10	0.11	0.25	0.10	700	730	7.8	7.9	7.9	0.55	1.8	2.8
22-Jan	96	0.090	0.098	0.11	710	750	780	7.9	7.9	7.9	0.64	1.7	2.7
23-Jan	96	0.060	0.10	0.17	0.28	750	790	7.8	7.9	8.0	0.50	1.7	2.5
24-Jan	96	0.070	0.10	0.12	55	730	870	7.9	7.9	8.0	0.68	2.9	16
25-Jan	96	0.020	0.16	0.69	0.11	740	830	7.2	7.9	8.1	0.0	2.3	25
26-Jan	96	0.10	0.21	1.1	780	800	830	7.9	7.9	7.9	0.71	1.7	7.1
27-Jan	96	0.10	0.17	0.79	780	810	830	7.9	7.9	7.9	0.63	1.6	2.5
28-Jan	96	0.10	0.18	0.86	780	810	840	7.9	7.9	7.9	0.74	1.8	3.1
29-Jan	96	0.090	0.14	0.57	790	820	850	7.9	7.9	7.9	0.83	1.8	2.8
30-Jan	94	0.090	0.10	0.16	30	800	840	7.9	7.9	7.9	0.83	1.8	4.7
31-Jan	96	0.090	0.13	0.65	790	820	850	7.9	7.9	7.9	0.83	1.8	2.8
1-Feb	96	0.090	0.098	0.24	790	810	850	7.9	7.9	7.9	0.81	1.7	2.6
2-Feb	96	0.090	0.11	0.16	770	800	830	7.9	7.9	8.0	0.84	2.8	4.4
3-Feb	96	0.10	0.18	0.41	770	790	820	7.9	7.9	7.9	1.1	2.9	4.2
4-Feb	96	0.090	0.12	0.30	770	790	830	7.9	7.9	7.9	1.7	3.2	4.3
5-Feb	96	0.10	0.13	0.37	780	800	820	7.9	7.9	7.9	1.1	2.5	3.6
6-Feb	96	0.090	0.11	0.24	780	800	820	7.9	7.9	7.9	1.2	2.4	3.6
7-Feb	95	0.10	0.11	0.23	780	800	830	7.9	7.9	7.9	1.2	2.3	3.4
8-Feb	96	0.090	0.13	0.56	790	800	820	7.8	7.9	7.9	0.98	2.2	4.2
9-Feb	96	0.090	0.12	0.35	760	820	840	7.8	7.9	8.1	0.57	1.9	8.4
10-Feb	96	0.070	0.14	0.43	500	780	840	7.8	7.9	7.9	0.84	3.6	63
11-Feb	96	0.070	0.092	0.11	690	810	850	7.8	7.9	7.9	0.66	2.3	20
12-Feb	96	0.070	0.11	0.32	760	810	840	7.8	7.8	8.0	0.70	2.1	27
13-Feb	96	0.080	0.11	0.43	650	800	850	7.8	7.8	8.0	0.62	1.6	3.2
14-Feb	96	0.070	0.11	0.53	620	780	840	7.8	7.8	7.9	0.66	4.6	62
15-Feb	96	0.070	0.12	0.37	770	820	850	7.8	7.8	8.1	0.72	2.0	13
16-Feb	96	0.080	0.092	0.10	800	820	850	7.8	7.8	7.8	0.47	1.7	7.6
17-Feb	96	0.080	0.10	0.17	800	820	850	7.8	7.8	7.8	0.50	1.9	5.0
18-Feb	96	0.090	0.11	0.25	800	820	850	7.8	7.8	7.9	0.55	1.8	3.7
19-Feb	96	0.090	0.12	0.21	800	820	850	7.8	7.8	7.9	0.72	1.7	4.8
20-Feb	96	0.080	0.091	0.12	780	810	840	7.8	7.8	7.9	0.62	1.5	2.6
21-Feb	96	0.080	0.097	0.23	750	790	820	7.8	7.8	7.9	0.61	1.6	2.7
22-Feb	96	0.080	0.092	0.11	650	710	790	7.8	7.8	7.9	0.78	1.7	3.0
23-Feb	96	0.080	0.10	0.16	190	460	670	7.8	8.1	8.5	0.90	42	110
24-Feb	96	0.10	0.12	0.36	190	320	580	7.9	8.2	8.4	14	51	79
25-Feb	96	0.090	0.12	0.38	520	580	660	7.8	7.9	8.0	1.2	6.9	33
26-Feb	96	0.080	0.14	0.41	580	620	690	7.8	8.0	8.1	0.44	3.7	100
27-Feb	96	0.080	0.11	0.26	620	660	710	7.8	7.9	8.0	0.48	1.9	3.4
28-Feb	96	0.090	0.17	0.39	670	710	760	7.8	7.9	8.0	0.75	2.4	6.4
29-Feb	96	0.090	0.13	0.35	700	730	770	7.8	7.9	7.9	0.67	2.0	5.1
1-Mar	96	0.090	0.097	0.17	720	740	760	7.9	7.9	7.9	0.57	1.7	2.8
2-Mar	96	0.080	0.089	0.11	680	700	750	7.9	7.9	8.0	0.68	2.2	10
3-Mar	96	0.080	0.10	0.23	670	700	730	7.9	7.9	8.0	0.73	1.8	17
4-Mar	96	0.080	0.099	0.29	680	700	730	7.9	7.9	7.9	0.71	1.5	3.7

RSEM-R6E													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
5-Mar	96	0.090	0.20	0.95	420	640	740	7.9	8.0	8.3	0.94	81	1600
6-Mar	96	0.080	0.11	0.25	500	580	630	8.1	8.2	8.3	0.64	5.1	25
7-Mar	96	0.080	0.11	0.41	240	510	610	8.0	8.1	8.3	0.68	2.5	9.6
8-Mar	96	0.070	0.088	0.24	500	520	570	8.0	8.1	8.1	0.82	2.0	3.3
9-Mar	96	0.050	0.081	0.23	350	500	590	8.0	8.1	8.1	0.65	3.0	55
10-Mar	96	0.090	0.096	0.21	530	560	610	8.0	8.1	8.2	0.89	2.1	3.3
11-Mar	96	0.090	0.094	0.12	550	580	610	8.0	8.1	8.1	0.97	1.9	3.3
12-Mar	96	0.090	0.11	0.62	310	490	600	8.0	8.2	8.4	0.78	5.7	12
13-Mar	94	0.080	0.12	0.62	230	530	610	8.2	8.2	8.3	0.55	3.2	31
14-Mar	96	0.080	0.13	0.44	210	530	610	8.0	8.2	8.3	0.70	2.0	3.5
15-Mar	96	0.080	0.17	0.76	470	530	660	8.1	8.2	8.3	0.92	2.5	16
16-Mar	96	0.080	0.13	0.44	410	490	600	8.0	8.1	8.2	0.87	2.3	5.4
17-Mar	96	0.070	0.21	1.3	400	490	630	8.0	8.2	8.3	0.71	3.0	16
18-Mar	96	0.12	0.18	0.26	360	480	590	8.1	8.2	8.3	0.94	4.5	87
19-Mar	96	0.080	0.10	0.14	340	360	380	8.0	8.1	8.2	0.85	2.2	3.7
20-Mar	96	0.090	0.13	0.28	410	470	550	8.1	8.2	8.3	0.82	2.8	6.4
21-Mar	96	0.090	0.10	0.16	360	400	530	8.1	8.2	8.3	0.70	2.2	5.7
22-Mar	96	0.090	0.10	0.23	220	390	520	8.0	8.1	8.2	0.81	2.5	6.0
23-Mar	96	0.090	0.12	0.27	380	430	570	8.1	8.1	8.2	0.75	3.8	97
24-Mar	96	0.090	0.11	0.24	420	460	570	8.1	8.1	8.2	0.54	1.9	4.6
25-Mar	96	0.080	0.12	0.28	470	500	590	8.1	8.1	8.2	0.64	2.1	11
26-Mar	96	0.080	0.14	0.42	440	480	580	8.1	8.2	8.2	0.58	2.5	34
27-Mar	95	0.090	0.13	0.51	170	380	550	8.1	8.2	8.3	0.62	3.7	6.8
28-Mar	96	0.090	0.097	0.11	310	330	390	8.1	8.2	8.3	1.2	3.6	5.5
29-Mar	96	0.090	0.12	0.36	340	380	570	8.0	8.1	8.3	1.1	3.0	4.8
30-Mar	96	0.13	0.17	0.24	54	230	400	8.2	8.5	9.0	0.57	3.7	9.5
31-Mar	95	-0.090	-0.085	-0.080	950	960	960	8.2	8.3	8.3	2.3	4.4	73
01-Apr	95	0.02	0.20	1.8	59	240	600	8.3	8.6	9.1	0.76	4.3	13
02-Apr	96	0.07	0.35	0.89	290	340	430	8.3	8.4	8.5	0.56	2.4	4.7
03-Apr	96	0.11	0.49	1.5	190	270	320	8.3	8.5	8.7	0.69	2.8	5.4
04-Apr	96	0.16	0.69	1.5	230	280	340	8.4	8.6	8.7	0.78	4.1	7.5
05-Apr	96	0.36	0.61	0.87	280	350	400	8.4	8.5	8.7	3.0	4.9	7.3
06-Apr	96	0.15	0.41	0.85	250	320	360	8.5	8.6	8.7	2.4	2.7	3.2
07-Apr	96	0.12	0.39	0.98	180	280	360	8.5	8.7	9.0	2.5	2.8	3.5
08-Apr	90	0.08	0.43	1.3	250	290	310	8.5	8.7	8.9	2.3	2.7	4.5
09-Apr	96	0.14	0.43	1.2	250	290	330	8.4	8.6	8.6	2.6	2.7	3.0
10-Apr	96	0.13	0.39	1.1	260	300	330	8.4	8.5	8.6	1.1	2.4	3.8
11-Apr	96	0.15	0.53	1.2	280	310	340	8.4	8.5	8.6	1.1	2.3	9.9
12-Apr	96	0.19	0.57	1.3	260	300	330	8.5	8.6	8.7	1.1	2.3	4.4
13-Apr	96	0.24	0.57	1.1	250	290	330	8.5	8.6	8.7	1.2	2.2	4.1
14-Apr	48	0.49	0.70	1.5	200	250	270	8.6	8.7	8.8	1.3	2.7	4.5
15-Apr													
16-Apr													
17-Apr													
18-Apr													
19-Apr													
20-Apr													
21-Apr	35	7.7	8.4	8.9	490	500	520	8.2	8.3	8.3	25	30	34
22-Apr	96	6.5	8.3	11	490	500	520	8.2	8.3	8.4	20	24	29
23-Apr	96	7.0	8.3	9.9	490	500	520	8.3	8.3	8.4	18	21	80
24-Apr	96	6.9	8.8	11	490	500	520	8.3	8.4	8.5	16	21	250
25-Apr	96	7.1	9.0	11	490	510	530	8.3	8.4	8.5	17	22	180
26-Apr	96	7.8	9.2	12	490	510	530	8.4	8.4	8.5	18	21	26
27-Apr	96	5.7	7.1	8.8	490	510	530	8.4	8.4	8.5	20	22	26
28-Apr	96	4.9	5.7	6.7	500	510	530	8.4	8.5	8.5	17	20	34
29-Apr	96	5.3	6.8	8.4	500	510	530	8.4	8.5	8.5	16	19	23
30-Apr	96	6.9	8.6	10	490	510	530	8.5	8.5	8.6	14	28	97
01-May	96	8.9	9.9	12	490	510	530	8.4	8.5	8.6	13	16	26
02-May	96	9.1	11	14	480	500	520	8.4	8.5	8.5	11	16	27
03-May	96	9.9	11	12	460	500	520	8.4	8.5	8.5	11	17	46
04-May	91	10	12	13	0	540	590	8.4	8.5	8.6	10	13	20
05-May	96	10	13	16	560	580	590	8.4	8.5	8.6	7.7	11	17
06-May	96	12	13	14	570	580	590	8.5	8.5	8.6	6.7	8.1	12
07-May	96	13	13	14	570	580	590	8.5	8.5	8.6	5.1	6.6	16

RSEM-R6E													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
08-May	96	12	13	14	570	580	580	8.4	8.5	8.6	4.2	5.1	9.2
09-May	96	12	13	14	580	580	590	8.4	8.5	8.6	3.4	4.4	16
10-May	96	12	13	14	580	590	590	8.5	8.5	8.6	2.7	3.4	5.1
11-May	96	13	14	16	580	590	590	8.5	8.5	8.6	2.0	2.9	4.1
12-May	96	14	15	16	580	590	610	8.5	8.6	8.7	1.9	2.9	24
13-May	96	14	15	17	570	590	610	8.5	8.6	8.7	1.7	4.7	82
14-May	96	14	16	18	570	580	590	8.5	8.6	8.7	1.7	3.1	28
15-May	96	14	15	16	560	570	580	8.5	8.6	8.7	1.7	2.7	42
16-May	96	15	15	16	540	570	580	8.6	8.7	8.8	1.6	2.9	35
17-May	96	15	15	15	550	560	570	8.6	8.7	8.8	1.7	2.6	16
18-May	96	13	14	15	550	570	600	8.6	8.7	8.8	1.4	2.2	9.9
19-May	96	12	14	17	590	630	660	8.6	8.7	8.8	1.2	1.7	3.6
20-May	96	13	15	17	660	740	790	8.5	8.6	8.8	1.1	3.3	51
21-May	96	14	16	18	720	760	770	8.5	8.6	8.8	1.1	3.3	64
22-May	96	15	17	18	700	760	790	8.6	8.7	8.8	1.1	4.1	35
23-May	96	16	18	19	740	760	770	8.6	8.7	8.8	1.2	4.5	39
24-May	96	17	18	18	720	760	780	8.7	8.8	8.9	1.1	3.8	33
25-May	96	14	15	17	770	790	810	8.5	8.6	8.8	1.1	1.5	3.5
26-May	96	13	14	15	810	970	1200	8.3	8.4	8.6	1.2	1.7	8.4
27-May	96	13	14	15	1100	1200	1300	8.3	8.3	8.4	1.1	1.7	3
28-May	96	14	15	17	1200	1300	1300	8.2	8.3	8.5	0.98	6.1	110
29-May	96	14	16	17	1100	1200	1200	8.3	8.4	8.6	0.96	5.6	65
30-May	96	15	17	18	980	1200	1300	8.4	8.5	8.7	0.88	10	89
31-May	96	16	17	18	1000	1100	1200	8.5	8.6	8.8	0.77	3.3	64
01-Jun	96	17	19	20	1000	1100	1200	8.5	8.7	8.9	0.8	3.5	31
02-Jun	94	19	20	22	1.6	1000	1200	8.3	8.8	8.9	0.58	13	230
03-Jun	96	20	21	22	850	940	1000	8.5	8.8	9.1	1.3	8.4	85
04-Jun	96	19	20	21	930	1000	1200	8.6	8.9	9.1	0	35	350
05-Jun	96	18	19	20	960	1100	1100	6.8	7.2	9.0	1.2	49	540
06-Jun	96	18	19	20	960	1100	1200	6.8	7.1	7.5	1.1	21	120
07-Jun	96	18	18	19	950	1000	1100	6.9	7.1	7.4	1.1	92	1100
08-Jun	96	17	18	20	920	1000	1100	7.0	7.2	7.6	0	43	350
09-Jun	96	18	19	20	950	1000	1100	7.0	7.3	7.9	0	29	440
10-Jun	96	17	19	20	900	1000	1100	7.0	7.3	7.8	0	22	180
11-Jun	96	18	19	20	890	1000	1100	6.9	7.3	7.7	0	6.5	120
12-Jun	96	18	19	20	890	990	1100	6.9	7.4	7.9	0	1.6	19
13-Jun	96	18	19	21	920	1000	1100	6.7	7.4	7.7	0	20	670
14-Jun	96	19	20	22	840	990	1100	6.8	7.6	8.2	0	7.8	110
15-Jun	96	19	19	20	880	990	1100	8.0	8.2	8.5	0	4.4	170
16-Jun	96	17	18	19	940	980	1000	8.1	8.3	8.4	0	0.8	15
17-Jun	96	16	17	17	940	980	1000	8.0	8.3	8.6	0	0.23	19
18-Jun	96	16	18	19	860	990	1000	8.2	8.5	8.7	0	0.68	16
19-Jun	96	17	19	21	640	950	1100	8.4	8.6	8.8	0	4.1	63
20-Jun	96	18	20	23	740	950	1000	8.5	8.7	8.9	0	23	520
21-Jun	96	20	22	25	810	950	1000	8.7	8.9	9.1	0	56	1200
22-Jun	96	21	22	24	720	930	1000	6.9	8.4	9.2	0	14	300
23-Jun	96	20	22	23	730	950	1000	6.8	7.6	8.8	0	14	280
24-Jun	96	21	22	23	920	960	1000	6.8	7.5	8.6	0	6.4	50
25-Jun	96	21	23	26	860	960	1000	6.9	7.7	8.3	0	3.3	81
26-Jun	96	23	25	28	710	970	1200	7.0	7.5	8.6	0	33	370
27-Jun	96	25	27	30	790	960	1100	6.9	7.6	8.4	0.03	100	2500
28-Jun	61	27	28	31	850	970	1000	6.9	7.4	8.4	0.25	21	990
29-Jun													
30-Jun													
01-Jul													
02-Jul													
03-Jul	63	23	24	24	960	990	1000	7.9	8.2	8.4	0	0.15	0.54
04-Jul	96	22	23	24	960	990	1000	7.9	8.3	8.8	0	0.17	1.3
05-Jul	96	22	24	25	950	980	1000	8.1	8.6	8.9	0	19	65
06-Jul	95	22	24	27	920	970	1000	8.2	8.7	9.0	0	9.4	47
07-Jul	96	23	25	27	920	960	1000	8.4	8.8	9.1	0	31	200
08-Jul	95	24	25	27	910	960	1000	8.4	8.8	9.1	0	22	300
09-Jul	96	24	26	28	910	960	990	8.5	8.9	9.2	0	40	330
10-Jul	96	23	24	25	930	950	980	8.3	8.7	9.1	0	0.16	0.94

RSEM-R6E													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
11-Jul	96	22	24	25	930	960	980	8.2	8.8	9.2	0	0.09	0.44
12-Jul	96	22	24	27	930	950	970	8.5	9.0	9.3	0	7.4	95
13-Jul	95	23	25	28	840	930	970	8.8	9.1	9.3	0	12	150
14-Jul	96	24	25	26	810	920	980	7.2	8.6	9.3	0	28	210
15-Jul	96	24	25	26	800	930	970	7.0	7.3	8.6	0	61	420
16-Jul	96	21	22	25	920	960	990	7.0	7.2	7.5	0	0.72	52
17-Jul	55	19	19	20	900	930	990	7.1	7.2	7.5	0	0.002	0.08
18-Jul	96	18	18	19	910	930	960	7.0	7.6	8.1	0	0.023	0.78
19-Jul	96	18	19	21	880	910	930	7.9	8.2	8.6	0	0.2	0.77
20-Jul	96	19	19	20	790	880	950	8.3	8.5	8.7	0	16	170
21-Jul	96	18	19	21	810	890	990	8.1	8.3	8.5	0	47	270
22-Jul	96	16	17	18	950	1100	1200	7.8	7.9	8.1	17	33	280
23-Jul	96	16	18	19	1100	1100	1200	7.8	8.0	8.2	9.3	31	59
24-Jul	96	17	19	20	1000	1100	1100	7.9	8.1	8.3	2.3	28	70
25-Jul	96	18	20	21	1000	1100	1100	8.0	8.2	8.4	0.55	36	340
26-Jul	96	19	20	21	1000	1100	1100	8.0	8.3	8.6	0.23	22	250
27-Jul	96	19	21	22	940	1000	1100	8.0	8.4	8.6	0	20	200
28-Jul	96	19	21	23	940	1000	1000	8.1	8.4	8.7	0	22	260
29-Jul	96	20	22	24	930	990	1000	8.2	8.6	8.8	0	8.7	63
30-Jul	96	21	23	26	840	960	1100	8.3	8.7	9.0	0	8.9	82
31-Jul	96	23	25	27	810	950	1000	8.5	8.8	9.0	0	23	370
01-Aug	96	24	24	25	870	940	990	8.6	8.8	9.0	0	7.8	120
02-Aug	96	23	24	24	890	940	970	8.3	8.5	8.7	0	1.6	44
03-Aug	96	23	24	25	900	940	970	8	8.5	9.0	0	6.8	110
04-Aug	96	23	25	27	800	920	980	8.2	8.6	9.1	0	4.9	98
05-Aug	96	24	25	27	800	910	970	6.8	8.2	8.9	0	29	240
06-Aug	96	22	23	24	900	1200	1600	7.4	7.8	8.1	0	4	17
07-Aug	96	19	21	22	1300	1400	1500	7.2	7.7	8.1	0.41	6.6	55
08-Aug	96	18	20	22	1200	1300	1300	7.9	8.1	8.3	0.67	2.8	16
09-Aug	96	19	19	20	1100	1200	1300	8.1	8.3	8.4	0.78	20	120
10-Aug	96	18	18	19	1100	1200	1200	8.0	8.2	8.5	4.9	14	50
11-Aug	96	17	19	20	940	1100	1100	8.1	8.3	8.5	8.5	25	140
12-Aug	96	18	19	21	970	1000	1100	8.0	8.3	8.6	16	36	66
13-Aug	96	19	21	22	910	1000	1000	8.2	8.5	8.7	0.19	37	150
14-Aug	96	21	21	22	820	940	990	8.3	8.5	8.7	0	14	200
15-Aug	96	20	21	21	830	880	930	8.2	8.4	8.7	0	5.6	39
16-Aug	96	19	19	20	790	840	880	8.1	8.4	8.6	0	1.7	10
17-Aug	96	18	19	21	740	790	830	8.1	8.4	8.7	0.16	3.1	16
18-Aug	96	18	19	19	510	730	820	8.3	8.5	8.6	1.6	5.3	38
19-Aug	96	18	19	21	590	700	750	8.2	8.4	8.7	1.8	9.5	130
20-Aug	96	18	19	20	510	690	740	8.2	8.4	8.7	1.3	13	210
21-Aug	48	18	18	19	530	670	700	8.2	8.3	8.5	1.5	9	68
22-Aug	43	14	15	16	940	1200	1200	7.9	8.0	8.1	9.5	21	72
23-Aug	96	13	14	15	1200	1200	1300	7.9	8.0	8.1	8.4	35	130
24-Aug	96	13	15	16	1200	1200	1300	7.9	8.0	8.2	7.4	35	160
25-Aug	96	14	16	18	1100	1200	1200	8.0	8.1	8.3	5.2	16	29
26-Aug	96	16	17	18	890	1100	1100	8.1	8.2	8.4	5.9	23	88
27-Aug	96	16	17	19	940	980	1000	8.1	8.3	8.4	11	36	110
28-Aug	96	16	17	18	890	930	980	8.1	8.3	8.5	3.4	14	85
29-Aug	96	16	17	17	820	890	930	8.1	8.3	8.5	1.0	21	250
30-Aug	96	15	16	17	710	850	890	8.1	8.3	8.5	1.8	11	33
31-Aug	96	15	15	16	800	830	870	8.2	8.3	8.5	2.9	11	97
01-Sep	96	15	15	16	770	810	850	8.2	8.4	8.5	3.9	11	19
02-Sep	96	14	16	18	750	790	830	8.2	8.4	8.5	2.9	9	50
03-Sep	96	15	16	18	670	760	790	8.2	8.5	8.6	1.8	23	380
04-Sep	96	15	16	17	670	730	790	8.3	8.4	8.6	2.1	27	360
05-Sep	96	15	16	17	670	710	750	8.2	8.4	8.6	2.8	11	57
06-Sep	96	15	16	17	630	690	730	8.3	8.5	8.6	3.7	8.1	68
07-Sep	96	15	16	17	610	670	710	8.3	8.4	8.6	4.1	6.6	16
08-Sep	96	15	16	16	630	660	680	8.3	8.5	8.6	4.2	6.3	21
09-Sep	96	15	16	17	640	660	690	8.2	8.4	8.5	0.34	5.8	30
10-Sep	96	15	16	17	610	670	700	8.2	8.4	8.6	0.39	3.9	60
11-Sep	96	15	16	17	610	670	690	8.3	8.5	8.7	0	6.3	55
12-Sep	96	15	16	16	650	680	710	8.2	8.4	8.7	0	2.5	21

RSEM-R6E													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
13-Sep	96	14	15	15	640	670	700	8.3	8.5	8.7	0.13	4.5	32
14-Sep	96	13	14	14	610	670	690	8.3	8.4	8.6	0.16	6.9	60
15-Sep	96	12	12	13	660	690	710	8.3	8.5	8.7	0.67	2.3	5.8
16-Sep	96	11	12	13	680	710	730	8.3	8.5	8.7	2.3	3.6	7.1
17-Sep	96	11	11	12	690	720	740	8.3	8.5	8.6	2.5	4.5	7.5
18-Sep	96	11	11	11	710	730	750	8.3	8.5	8.6	4.7	9.4	20
19-Sep	96	11	11	13	710	730	760	8.3	8.5	8.6	6.1	17	83
20-Sep	96	11	11	12	700	730	760	8.3	8.5	8.7	5.7	18	110
21-Sep	96	11	12	13	690	720	750	8.4	8.5	8.7	7.2	25	180
22-Sep	96	12	12	13	680	720	750	8.4	8.5	8.7	13	24	81
23-Sep	96	11	11	12	690	710	740	8.3	8.5	8.6	16	35	84
24-Sep	96	11	11	12	670	700	730	8.3	8.5	8.6	21	32	54
25-Sep	96	11	12	12	640	680	720	8.4	8.5	8.6	19	41	69
26-Sep	96	12	12	12	620	650	670	8.4	8.4	8.5	30	71	110
27-Sep	96	11	12	12	620	640	660	8.3	8.4	8.5	51	92	110
28-Sep	96	11	11	12	640	680	710	8.2	8.3	8.4	82	110	130
29-Sep	96	10	11	11	660	680	700	8.2	8.3	8.5	88	120	140
30-Sep	96	9.8	10	11	670	690	720	8.2	8.4	8.5	59	120	210
01-Oct	96	9.8	10	11	670	690	710	8.3	8.4	8.6	50	98	150
02-Oct	96	9.4	9.9	10	650	690	710	8.3	8.5	8.6	55	92	210
03-Oct	96	8.4	9.0	9.4	650	680	700	8.4	8.5	8.6	66	82	91
04-Oct	96	7.4	8.0	8.7	640	670	690	8.4	8.5	8.6	68	82	110
05-Oct	96	6.4	6.9	7.5	640	660	680	8.4	8.5	8.5	80	92	110
06-Oct	59	6.1	6.3	6.8	630	650	660	8.4	8.4	8.6	37	74	92
07-Oct	58	5.9	6.2	6.6	0	630	640	8.3	8.4	8.5	0	8.6	12
08-Oct	96	5.6	6.3	7.1	620	630	690	8.3	8.4	8.4	7.4	9.9	41
09-Oct	96	6.4	6.9	7.5	620	630	650	8.3	8.4	8.4	6.9	9.9	30
10-Oct	96	6.4	6.7	7.0	620	630	630	8.3	8.3	8.4	5.8	7.2	12
11-Oct	96	5.6	6.2	6.9	610	620	630	8.3	8.3	8.4	6.0	7.0	8.2
12-Oct	96	5.2	5.4	5.7	610	610	620	8.3	8.3	8.4	6.3	7.1	8.6
13-Oct	96	4.9	5.3	6.0	600	610	610	8.3	8.3	8.4	6.1	7.1	15
14-Oct	96	4.5	5.2	5.9	590	600	600	8.3	8.4	8.4	6.5	7.4	8.8
15-Oct	96	5.1	5.6	6.3	580	590	600	8.3	8.4	8.5	6.6	7.7	12
16-Oct	96	5.3	5.5	5.7	580	590	590	8.3	8.4	8.4	6.4	7.8	9.6
17-Oct	96	4.8	5.2	5.4	580	590	590	8.3	8.3	8.4	7.0	7.8	13
18-Oct	96	4.0	4.3	4.8	580	580	590	8.3	8.4	8.4	5.9	7.0	12
19-Oct	96	3.8	4.1	4.4	580	580	580	8.3	8.4	8.4	5.4	6.4	9.4
20-Oct	96	4.1	4.2	4.3	580	580	580	8.3	8.4	8.4	4.9	5.7	6.8
21-Oct	96	3.9	4.2	4.8	580	580	580	8.3	8.4	8.4	5.0	5.5	6.6
22-Oct	96	3.9	4.3	4.8	580	590	590	8.3	8.4	8.4	4.9	5.5	7.9
23-Oct	96	4.2	4.4	4.6	590	600	610	8.3	8.4	8.4	4.9	5.6	8.4
24-Oct	96	4.2	4.4	4.7	610	630	660	8.3	8.3	8.4	5.2	6.2	11
25-Oct	96	4.6	4.8	5.2	660	690	700	8.3	8.3	8.4	5.6	7.4	8.7
26-Oct	96	4.3	4.7	5.3	700	710	720	8.3	8.4	8.4	5.7	6.9	9.4
27-Oct	96	4.2	4.7	5.1	720	720	720	8.3	8.4	8.5	6.1	6.7	8
28-Oct	96	3.4	4.0	4.5	720	720	720	8.4	8.4	8.5	5.2	6.0	6.8
29-Oct	96	1.8	2.5	3.5	720	720	730	8.5	8.5	8.5	5.7	6.3	9.9
30-Oct	96	1.1	1.5	1.8	730	740	750	8.4	8.5	8.5	5.6	7.1	8.9
31-Oct	96	0.91	1.5	2	750	760	760	8.4	8.4	8.5	5.5	7.5	8.8
01-Nov	96	1.5	1.9	2.5	750	760	770	8.4	8.4	8.4	5.4	7.1	8.5
02-Nov	96	1.6	1.9	2.7	770	770	780	8.3	8.3	8.4	4.8	6.0	25
03-Nov	96	1.4	1.8	2.2	770	780	790	8.3	8.3	8.4	4.1	5.9	17
04-Nov	96	1.4	1.8	2.2	710	750	780	8.3	8.3	8.3	4.1	6.2	15
05-Nov	96	1.5	1.7	2.2	720	740	760	8.3	8.3	8.3	3.8	4.6	5.4
06-Nov	96	1.4	1.7	2.2	740	750	770	8.3	8.3	8.3	3.6	3.9	4.5
07-Nov	96	1.3	1.7	2.1	770	780	800	8.3	8.3	8.3	3.4	3.7	4.4
08-Nov	96	1.4	1.6	1.8	800	820	850	8.3	8.3	8.3	3.4	3.9	7.7
09-Nov	96	1.1	1.3	1.5	810	840	840	8.3	8.3	8.3	3.3	6.6	74
10-Nov	96	0.87	0.99	1.1	830	840	840	8.3	8.3	8.3	3.3	4.8	30
11-Nov	96	0.66	0.82	1.1	840	850	860	8.3	8.3	8.3	3.2	3.6	9.8
12-Nov	81	0.6	0.76	0.85	840	860	860	8.2	8.3	8.3	3.3	12	99
13-Nov													
14-Nov	9	0.69	0.73	0.76	870	880	880	8.2	8.3	8.3	3.5	3.6	3.8
15-Nov													

RSEM-R6E													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
16-Nov	1	0.54	0.54	0.54	890	890	890	8.2	8.2	8.2	4.0	4.0	4.0
17-Nov	1	0.33	0.33	0.33	900	900	900	8.2	8.2	8.2	3.8	3.8	3.8
18-Nov	35	0.28	0.41	0.51	910	910	920	8.2	8.2	8.3	3.4	3.7	4.4
19-Nov	96	0.23	0.34	0.46	840	900	930	8.2	8.2	8.2	3.6	7.7	15
20-Nov	96	0.24	0.32	0.40	780	800	850	8.2	8.2	8.3	9.3	12	16
21-Nov	96	0.20	0.25	0.31	770	770	800	8.2	8.2	8.2	7.0	8.6	11
22-Nov	96	0.19	0.21	0.25	780	780	790	8.2	8.2	8.2	5.9	7.0	8.2
23-Nov	96	0.11	0.18	0.33	790	800	820	8.2	8.2	8.2	5.3	6.2	7.5
24-Nov	96	0.13	0.18	0.23	810	820	830	8.1	8.2	8.2	5.2	6.1	7.2
25-Nov	96	0.14	0.19	0.34	830	850	870	8.1	8.1	8.2	4.8	5.5	7.2
26-Nov	96	0.15	0.21	0.39	860	880	890	8.1	8.1	8.2	4.0	4.6	5.7
27-Nov	96	0.20	0.25	0.39	880	900	910	8.1	8.1	8.2	3.3	3.8	4.3
28-Nov	96	0.22	0.27	0.38	900	910	920	8.1	8.1	8.2	3.2	3.4	3.8
29-Nov	96	0.12	0.27	0.81	920	930	950	8.1	8.1	8.2	3.2	3.3	3.6
30-Nov	96	0.13	0.19	0.40	950	950	960	8.1	8.1	8.2	3.2	3.4	4.3
01-Dec	96	0.12	0.22	0.39	950	950	960	8.1	8.1	8.1	3.1	3.3	3.4
02-Dec	96	0.13	0.21	0.34	950	970	990	8.1	8.1	8.1	3.1	3.2	3.4
03-Dec	96	0.09	0.15	0.25	990	1000	1100	8.1	8.1	8.1	3.1	3.3	3.6
04-Dec	96	0.05	0.094	0.25	1000	1100	1100	8.0	8.1	8.1	3.2	3.5	8.5
05-Dec	96	0.04	0.087	0.27	1100	1100	1100	8.0	8.0	8.1	3.1	3.2	3.9
06-Dec	96	-0.02	0.049	0.40	1100	1100	1200	8.0	8.0	8.0	3.1	4.0	12
07-Dec	96	-0.02	0.033	0.18	1100	1100	1200	8.0	8.0	8.0	3.1	3.8	8
08-Dec	96	-0.03	-0.00094	0.08	1100	1100	1100	8.0	8.0	8.0	3.0	3.3	7.8
09-Dec	96	-0.04	-0.015	0.06	1100	1100	1200	8.0	8.0	8.0	3.0	3.4	8.7
10-Dec	96	-0.04	-0.015	0.12	1100	1200	1200	8.0	8.0	8.1	3.1	3.5	8.1
11-Dec	96	-0.21	-0.0023	0.15	0.11	1200	1200	8.0	8.0	8.1	3.0	4.0	22
12-Dec	96	-0.03	-0.0016	0.08	1200	1200	1300	8.0	8.0	8.0	3.0	4.5	28
13-Dec	96	-0.02	0.022	0.12	1200	1200	1200	7.9	8.0	8.0	3.0	3.5	13
14-Dec	96	-0.04	0.014	0.59	970	1200	1300	7.9	7.9	7.9	3.0	3.3	10
15-Dec	96	-0.05	-0.019	0.21	1300	1300	1300	7.8	7.9	7.9	3.0	3.2	5.8
16-Dec	96	-0.05	0.0036	0.44	1300	1300	1300	7.8	7.8	7.9	3.1	3.4	9
17-Dec	96	-0.06	0.099	1.1	910	1300	1300	7.8	7.8	7.8	3.1	3.4	9.6
18-Dec	96	-0.06	0.12	0.92	1300	1300	1300	7.8	7.8	7.8	3.1	4.8	45
19-Dec	96	-0.06	0.071	0.95	1300	1300	1300	7.8	7.8	7.8	0	4.5	23
20-Dec	96	-0.08	0.039	0.56	1300	1300	1400	7.8	7.8	7.8	3.1	3.7	9.8
21-Dec	96	-0.01	0.17	0.7	1300	1300	1400	7.7	7.8	7.8	3.2	4.8	20
22-Dec	96	-0.04	0.031	0.32	1200	1300	1300	7.7	7.8	7.8	3.1	3.6	6.5
23-Dec	88	-0.03	0.05	0.29	1300	1300	1300	7.7	7.8	7.8	3.1	4.0	16
24-Dec	96	-0.04	0.067	0.39	1300	1300	1400	7.7	7.7	7.7	3.2	4.1	11
25-Dec	96	-0.03	0.045	0.28	1300	1400	1400	7.7	7.7	7.7	3.1	3.8	14
26-Dec	96	-0.04	0.03	0.27	1400	1400	1400	7.7	7.7	7.7	3.1	3.6	8.7
27-Dec	96	-0.04	0.032	0.33	1400	1400	1400	7.7	7.7	7.7	3.1	3.4	6.8
28-Dec	96	-0.03	0.025	0.34	1400	1400	1400	7.6	7.7	7.7	3.2	3.6	7.6
29-Dec	96	-0.08	-0.01	0.32	1400	1400	1400	7.6	7.7	7.7	3.2	5.6	110
30-Dec	96	-0.07	0.01	0.33	1300	1400	1400	7.6	7.7	7.7	3.1	8.8	420
31-Dec	96	-0.13	-0.003	0.31	0.11	1400	1400	6.7	7.6	7.8	3.2	25	790

*Based on temperature readings

RSEM-R5A-Pond D												
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
25-Aug	27	18.51	19.16	19.73	891.78	1222.40	1551.1	8.41	8.46	8.53	53.84	599.91	1623.6
26-Aug	96	16.61	17.81	18.97	380.52	1058.46	1653.1	8.37	8.45	8.57	23.74	179.38	1039.9
27-Aug	96	16.82	18.37	20.58	1087	1303.19	1525	8.44	8.51	8.58	8.24	93.04	354.59
28-Aug	96	17.11	17.94	18.95	1407.1	1525.89	1622.9	8.52	8.60	8.67	4.54	15.30	86.27
29-Aug	96	16.5	17.37	18.13	1490.9	1564.40	1630	8.61	8.69	8.78	3.91	45.59	167.66
30-Aug	96	15.37	16.52	17.74	1473.4	1574.99	1647.1	8.73	8.79	8.88	3.37	54.89	196.47
31-Aug	96	14.66	15.26	16.29	1636.1	1653.92	1660.6	8.79	8.85	8.91	3.57	6.21	35.03
01-Sep	96	13.93	14.74	15.88	1651.3	1661.98	1671.1	8.82	8.88	8.93	3.4	6.55	30.83
02-Sep	96	13.4	15.27	17.62	1587.8	1658.23	1675.1	8.84	8.89	8.94	2.71	11.38	80.29
03-Sep	96	14.72	16.30	18.34	1551.2	1671.34	1833.6	8.85	8.91	8.95	3.29	41.38	185.29
04-Sep	96	15.65	16.39	16.97	1516.7	1689.36	1836	8.88	8.91	8.95	3.27	42.63	183.37
05-Sep	96	15.26	16.72	18.63	1543.7	1624.54	1811	8.89	8.91	8.95	3.61	26.48	106.96
06-Sep	96	15.27	16.90	18.8	1554.9	1605.23	1653.4	8.88	8.90	8.92	3.77	20.09	207.4
07-Sep	96	15.15	16.39	17.46	1554.4	1725.38	1807.4	8.85	8.89	8.98	5.86	31.06	58.52
08-Sep	96	15.68	16.26	16.85	1799.1	1821.70	1854.4	8.82	8.88	8.95	2.68	11.28	127.23
09-Sep	96	15.43	16.35	17.47	1672.4	1738.50	1840.5	8.83	8.87	8.92	3.16	8.47	58.64
10-Sep	96	14.71	15.74	16.94	1659.3	1676.53	1685.3	8.8	8.86	8.93	3.86	19.16	98.76
11-Sep	96	15.31	16.40	17.61	1668.1	1685.40	1710.4	8.78	8.86	8.92	5.57	27.57	149.77
12-Sep	96	13.97	15.62	17.43	1672.3	1692.08	1709.7	8.8	8.85	8.89	5.58	12.55	50.09
13-Sep	96	13.06	14.88	16.68	1686.1	1698.28	1712.5	8.76	8.81	8.86	5.33	11.47	124.24
14-Sep	96	12.39	13.66	14.5	1677	1695.14	1712.8	8.62	8.73	8.79	4.43	12.43	109.85
15-Sep	96	10.58	11.92	13.66	1689.3	1697.57	1712.5	8.57	8.64	8.71	5.85	14.45	71.17
16-Sep	96	10.07	11.84	13.67	1692.2	1699.93	1711.1	8.5	8.56	8.66	6.91	13.04	206.65
17-Sep	96	11.04	11.60	12.14	1693.4	1702.04	1708.4	8.47	8.55	8.63	4.38	12.61	45.95
18-Sep	96	10	10.74	11.62	1664.7	1701.02	1711.8	8.46	8.52	8.58	3.67	10.44	63.89
19-Sep	96	9.47	11.12	13.41	1536.8	1700.74	1721.5	8.35	8.45	8.52	2.9	15.05	571.79
20-Sep	96	9.39	11.54	13.19	1519.8	1705.55	1719.2	8.38	8.43	8.49	3.12	47.92	3570.8
21-Sep	96	11.07	12.93	14.97	1521.6	1712.41	1729.6	8.32	8.38	8.44	3.5	14.31	223.68
22-Sep	51	11.24	12.30	14.31	1715.4	1725.27	1744.8	8.27	8.32	8.36	5.08	12.68	35.14

*Based on temperature readings

RSEM-L5W													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
02-May	57	9.81	10.29	10.75	1552	1605.8	1687.6	8.5	8.75	8.79	5.71	21.42	59.7
03-May	96	9.51	10.45	11.41	1625.5	1704.4	1797.5	8.76	8.89	9	14.52	34.80	98.56
04-May	96	9.38	11.03	12.63	1661.9	1712.7	1740.6	8.83	8.89	8.94	20.94	62.51	130.78
05-May	53	10.25	11.31	14.82	1657.9	1706.2	1757.6	8.84	8.88	8.95	33.13	51.63	80.96
02-Jun	55	19.96	20.80	21.34	2631.3	2657.4	2675.1	8.31	8.33	8.37	7.32	9.27	15.09
03-Jun	96	19.34	20.29	21.48	2673	2696.8	2718	8.33	8.36	8.39	6.57	9.14	21.11
04-Jun	96	18.55	19.17	19.89	2642.6	2697.0	2725.1	8.33	8.37	8.4	6.58	8.42	13.29
05-Jun	96	17.47	18.63	19.66	2697.3	2731.1	2753.6	8.36	8.39	8.43	6.16	7.83	12.43
06-Jun	96	17.33	18.15	19.06	2747.4	2763.6	2779.5	8.39	8.43	8.47	5.84	9.28	40.58
07-Jun	96	16.87	17.75	18.73	2758.1	2778.0	2797.7	8.42	8.45	8.47	6.4	8.54	21.18
08-Jun	96	16.39	17.11	18.01	2783.6	2803.4	2815.2	8.43	8.45	8.48	6.3	8.45	14.82
09-Jun	96	16.11	16.87	17.98	2807	2816.4	2827.3	8.43	8.46	8.48	5.81	6.88	9.56
10-Jun	96	15.87	17.01	18.1	2818.7	2830.0	2842.1	8.43	8.47	8.49	5.76	8.50	51.95
11-Jun	96	16.24	17.97	19.58	2832.4	2847.1	2860.7	8.45	8.48	8.5	5.57	7.67	28.64
12-Jun	96	17.18	18.31	19.59	2851.5	2860.8	2870.5	8.46	8.50	8.52	5.14	6.53	17.03
13-Jun	96	17.39	18.26	19.22	2864.6	2873.5	2886.5	8.47	8.50	8.52	4.86	5.60	7.25
14-Jun	96	17.74	18.99	21.08	2880.6	2891.2	2903.6	8.48	8.51	8.53	4.85	8.04	56.51
15-Jun	96	17.88	18.44	19.11	2876	2893.8	2902.9	8.51	8.53	8.54	5.87	7.12	17.74
16-Jun	96	15.39	16.49	17.83	2856	2880.2	2896.7	8.54	8.58	8.61	5.73	7.79	41.82
17-Jun	96	14.84	15.75	16.81	2857.7	2864.6	2872.3	8.58	8.60	8.61	6.2	8.13	16.86
18-Jun	96	15.45	16.72	18.42	2861.3	2874.3	2886.1	8.55	8.59	8.61	5.58	6.98	10.78
19-Jun	96	15.99	18.22	20.82	2877.6	2889.5	2907.4	8.55	8.59	8.62	5.33	8.08	19.5
20-Jun	96	17.61	19.76	22.65	2874.5	2904.4	2980.1	8.55	8.59	8.62	4.99	6.22	13.35
21-Jun	96	19.16	21.46	23.6	2881.6	2913.8	2933.9	8.57	8.60	8.63	4.61	11.91	116.69
22-Jun	96	20.53	21.55	23.68	2732.3	2854.7	2924.4	8.55	8.62	8.65	6.36	19.66	81.34
23-Jun	96	19.2	20.89	22.99	2649.8	2749.3	2848.2	8.55	8.60	8.63	8.88	16.83	28.96
24-Jun	96	19.49	20.90	22.68	2745.2	2794.9	2835.4	8.61	8.63	8.67	7.22	12.54	29.71
25-Jun	96	19.82	22.31	25.2	2542.8	2666.7	2818.7	8.55	8.60	8.67	6.6	12.63	26.58
26-Jun	96	21.29	23.91	27.7	2607.9	2716.0	2815.5	8.57	8.61	8.65	6.29	8.36	14.45
27-Jun	96	22.72	24.63	26.52	2651.5	2765.2	2809.5	8.58	8.61	8.65	5.63	7.01	12.44
28-Jun	96	24.37	26.33	28.24	2453.3	2693.0	2806.6	8.49	8.56	8.6	5.72	7.59	12.74
29-Jun	96	26.1	27.82	30.19	2416.8	2615.9	2788	8.44	8.51	8.55	5.36	6.63	13.29
30-Jun	96	26.54	28.27	30.34	1777.8	2228.4	2678.3	8.26	8.43	8.57	4.68	8.84	81.15
01-Jul	96	25.28	26.12	27.46	1893.8	2232.8	2627.7	8.27	8.40	8.56	5.14	8.41	21.69
02-Jul	96	24.35	24.95	25.63	2268.2	2526.0	2674.1	8.4	8.53	8.60	5.09	9.88	51.9
03-Jul	96	21.91	22.82	24.37	2373.7	2493.6	2625.7	8.5	8.55	8.60	6.11	7.59	11.81
04-Jul	96	21.41	22.28	23.5	2464.6	2595.5	2697.9	8.48	8.56	8.65	6.69	9.09	20.01
05-Jul	96	20.9	21.73	22.84	2636.2	2720.1	2785.2	8.6	8.63	8.69	8.25	19.05	28.65

RSEM-L5W													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
06-Jul	96	20.47	22.11	24.4	2703	2748.5	2799.4	8.65	8.67	8.69	11.72	17.46	24.26
07-Jul	96	21.4	23.23	25.3	2654.5	2749.8	2824.6	8.64	8.68	8.71	11.34	14.77	22.16
08-Jul	96	21.74	23.18	24.95	2465	2681.2	2793.2	8.5	8.66	8.71	11.69	15.96	23.6
09-Jul	96	22.14	23.33	24.44	2337.2	2645.8	2786.8	8.49	8.63	8.70	11.07	15.47	32.69
10-Jul	96	22.09	22.64	23.45	2408.3	2615.7	2735.4	8.49	8.62	8.67	7.91	13.88	42.43
11-Jul	96	21.23	22.25	23.03	2251	2560.9	2793	8.4	8.56	8.65	8.59	13.91	60.25
12-Jul	96	21.27	22.80	24.92	2260.4	2567.0	2762.4	8.39	8.56	8.66	6.36	13.18	83.16
13-Jul	96	21.89	23.16	24.94	2260.6	2586.8	2773.7	8.37	8.56	8.65	5.02	8.48	36.78
14-Jul	96	22.58	23.42	24.11	2374.8	2615.5	2760.7	8.42	8.56	8.62	5.52	11.18	109.99
15-Jul	96	22.5	23.50	24.73	2374.5	2553.0	2677.4	8.36	8.52	8.61	5.2	13.00	103.25
16-Jul	96	19.79	21.41	23.37	2527.7	2684.8	2762.5	8.53	8.63	8.67	6.29	10.78	59.48
17-Jul	96	18.3	19.15	19.71	2488.2	2652.9	2746.4	8.51	8.61	8.66	4.87	6.91	30.77
18-Jul	96	17.49	18.00	18.47	2547.2	2677.3	2739.6	8.53	8.64	8.70	4.93	7.67	27.47
19-Jul	96	17.63	18.52	19.62	2498.9	2644.0	2723.6	8.5	8.59	8.65	4.92	6.39	12.65
20-Jul	96	18.55	18.84	19.19	2480.2	2601.6	2667.8	8.5	8.56	8.61	5.16	10.14	297.46
21-Jul	96	17.97	18.68	19.83	2480.1	2581.2	2669.2	8.51	8.59	8.67	5.91	18.09	122.56
22-Jul	96	17.7	18.45	19.51	2452.2	2543.5	2607.1	8.49	8.59	8.67	16.6	27.57	43.08
23-Jul	96	17.11	18.37	19.68	2483.9	2564.5	2622.2	8.53	8.63	8.69	17.07	24.79	32.65
24-Jul	38	17.82	18.17	18.74	2527.7	2553.4	2588.2	8.59	8.62	8.66	19.12	24.50	28.46
25-Jul													
26-Jul	31	20.1	20.71	21.09	2626.1	2640.9	2648.8	8.69	8.72	8.73	14.2	20.71	23.21
27-Jul	96	19.05	20.38	21.44	2596.6	2638.6	2660.1	8.66	8.71	8.74	9.33	21.47	36.04
28-Jul	96	19.29	20.77	22.29	2629.5	2661.8	2690.7	8.69	8.73	8.75	10.47	14.56	18.61
29-Jul	96	20.03	21.59	23.56	2643.4	2693.7	2761.1	8.71	8.74	8.76	8.84	18.34	41.25
30-Jul	96	20.56	22.31	25.28	2704.2	2730.0	2756.6	8.71	8.74	8.76	8.34	17.12	29.13
31-Jul	96	21.34	22.79	24.74	2728.3	2759.0	2798.6	8.72	8.74	8.76	10.79	16.06	20.35
01-Aug	96	22.21	22.72	23.16	2769.8	2788.9	2808.1	8.74	8.75	8.77	9.87	13.66	20.28
02-Aug	96	22.14	22.48	22.92	2804.5	2810.8	2818.1	8.74	8.75	8.77	9.71	12.17	19.35
03-Aug	96	21.55	22.69	23.7	2816.2	2841.1	2909.4	8.72	8.74	8.76	10.89	13.72	21.29
04-Aug	96	21.75	23.17	24.95	2865	2884.0	2906.8	8.71	8.73	8.75	11.23	14.24	17.58
05-Aug	96	22.42	23.29	24.26	2862.5	2899.0	2925.4	8.71	8.73	8.75	10.17	15.87	34.16
06-Aug	96	22.03	22.69	23.29	2882.3	2904.9	2928.9	8.72	8.74	8.76	16.74	21.69	29.42
07-Aug	96	19.03	20.43	22	2916.4	2922.1	2927.8	8.75	8.79	8.82	15.89	22.88	35.24
08-Aug	96	18.41	20.03	21.63	2917.7	2941.6	2970.8	8.76	8.79	8.82	10.9	15.15	28.02
09-Aug	96	19.25	20.05	20.81	2956.9	2968.8	2984.3	8.79	8.81	8.83	13.08	19.00	24.33
10-Aug	96	18.05	18.66	19.21	2983.2	2997.1	3018.3	8.82	8.84	8.86	8.36	20.46	25.2
11-Aug	96	17.1	18.73	20.15	3017.3	3035.2	3057.1	8.81	8.84	8.86	13	23.87	29.77
12-Aug	96	17.85	19.69	21.81	3056.3	3075.6	3097.2	8.8	8.84	8.85	10.26	23.06	31.09
13-Aug	96	18.77	20.41	21.83	3082.8	3108.2	3136.6	8.79	8.82	8.84	6.51	16.59	42.35

RSEM-L5W												
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
14-Aug	96	20.26	20.80	21.5	3124	3145.9	3180.9	8.82	8.83	8.84	6.44	10.92	129.21
15-Aug	96	19.28	20.42	21.17	3163.7	3184.6	3215.1	8.8	8.83	8.87	6.99	8.74	24.6
16-Aug	96	18.31	18.81	19.18	3213.3	3224.2	3236.6	8.85	8.87	8.88	8.02	10.77	23.74
17-Aug	96	17.72	18.94	20.7	3234.2	3250.2	3278.8	8.83	8.86	8.89	10.24	14.44	19.35
18-Aug	96	18.49	18.89	19.27	3275.1	3284.7	3293.7	8.83	8.86	8.87	11.54	15.52	22.46
19-Aug	96	18.11	19.14	20.56	3283.9	3306.0	3338.6	8.83	8.86	8.87	6.56	8.83	16.27
20-Aug	96	18.3	18.88	19.64	3328.6	3343.2	3356.6	8.83	8.85	8.86	6.35	7.81	15.26
21-Aug	96	17.83	18.13	18.57	3236.8	3331.6	3361.3	8.82	8.85	8.96	6.69	11.27	24.87
22-Aug	96	15.24	16.75	17.87	2979	3135.1	3269.1	8.79	8.82	8.85	12.03	15.82	29.31
23-Aug	96	14.89	15.35	15.87	2942.8	3149.1	3258.4	8.8	8.83	8.85	11.24	13.85	21.32
24-Aug	96	14.68	15.80	17.1	3185.9	3214.4	3232.9	8.8	8.83	8.85	10.87	12.34	16.26
25-Aug	96	15.36	16.72	18.22	3187.7	3221.0	3241.1	8.79	8.82	8.84	9.65	11.80	34.12
26-Aug	96	16.11	16.93	17.7	3215.9	3237.3	3264.2	8.38	8.77	8.84	8.91	10.23	12.68
27-Aug	96	16.45	17.59	19.31	3240.4	3261.5	3347.2	7.98	8.44	8.74	8.4	10.15	21.08
28-Aug	96	16.92	17.48	18.21	3241.6	3269.3	3333.8	7.8	8.08	8.48	8.1	9.47	12.7
29-Aug	96	16.69	17.15	17.56	3245.1	3252.5	3260.8	7.74	8.24	8.55	7.67	8.37	9.92
30-Aug	96	15.95	16.75	17.63	3254.4	3261.9	3270.6	8.54	8.63	8.71	7.59	9.04	14.14
31-Aug	96	15.53	15.96	16.6	3264.1	3268.7	3273.2	8.68	8.73	8.76	7.76	9.14	12.48
01-Sep	96	14.97	15.47	16.08	3271.9	3276.2	3280.9	8.75	8.77	8.79	7.74	9.35	16.64
02-Sep	96	14.57	15.73	17.82	3273.6	3281.1	3288.6	8.74	8.78	8.79	6.96	8.81	10.72
03-Sep	96	15.02	16.02	17.17	3266.2	3283.6	3291.3	8.75	8.77	8.78	6.26	7.40	9.52
04-Sep	96	15.64	16.06	16.47	3285.6	3290.1	3294.8	8.75	8.77	8.78	5.93	7.49	12.09
05-Sep	96	15.48	16.27	17.35	3293.3	3301.3	3311.7	8.76	8.78	8.80	6.11	9.65	20.45
06-Sep	96	15.48	16.44	17.39	3308	3316.3	3328.8	8.78	8.80	8.81	7.46	10.77	28.06
07-Sep	96	15.62	16.33	17.31	3288.2	3324.2	3332.3	8.78	8.80	8.83	6.92	9.09	13.12
08-Sep	96	15.74	16.06	16.38	3326.6	3330.3	3335.2	8.78	8.80	8.82	6.32	7.27	8.86
09-Sep	96	15.66	16.53	18.15	3322.2	3338.1	3372.9	8.77	8.80	8.82	6.07	7.95	12.28
10-Sep	96	15.53	16.00	16.39	3342.6	3349.4	3357.6	8.78	8.80	8.82	6.39	8.77	16.6
11-Sep	96	15.73	16.19	16.66	3354.5	3363.1	3372.9	8.79	8.80	8.81	6.36	7.57	13.37
12-Sep	96	15	15.89	16.72	3124.6	3316.2	3374.9	8.73	8.79	8.82	6.42	8.34	19.41
13-Sep	96	14.55	15.49	16.12	2949.9	3179.4	3337.1	8.7	8.75	8.79	5.73	7.30	15.75
14-Sep	96	14.28	14.76	15.39	2750.9	3193.0	3386.9	8.64	8.74	8.78	5.55	8.21	21.91
15-Sep	96	13.07	13.62	14.22	2756.1	3091.8	3313.4	8.64	8.74	8.81	5.75	13.62	281.56
16-Sep	96	12.55	13.17	13.71	2900.9	3198.9	3448.3	8.59	8.72	8.79	5.45	13.37	267.68
17-Sep	96	12.14	12.63	13.11	3075.1	3278.9	3413.5	8.64	8.69	8.75	5.53	16.67	642.1
18-Sep	96	10.81	12.02	12.67	2.97	2835.0	3308.1	8.56	8.67	9.08	3.72	18.24	165.5
19-Sep	43	7.1	8.53	12.24	3.44	430.4	3052.3	8.49	9.02	9.21	4.25	47.90	1334.4

*Based on temperature readings

RSEM-L5E													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
12-Apr	44	3.08	4.26	5.26	677.5	684.6	694.7	8.07	8.17	8.34	10.99	13.78	16.21
13-Apr	96	2.16	4.29	6.53	671.9	687.0	692.8	8.22	8.34	8.43	7.42	11.11	13.45
14-Apr	96	4.05	7.12	11.75	657.9	683.2	689.2	8.09	8.29	8.44	6.66	11.68	60.41
15-Apr	96	5.93	9.84	15.07	665.1	681.2	690.0	8.11	8.34	8.54	5.53	21.83	345.27
16-Apr	96	7.43	10.60	14.68	670.4	684.6	699.7	8.15	8.36	8.54	5.57	20.15	154.76
17-Apr	96	8.03	9.28	10.68	668.9	694.0	721.5	8.33	8.49	8.63	5.09	12.21	75.6
18-Apr	96	7.72	9.33	10.88	700.2	705.4	713.9	8.32	8.48	8.64	5.71	8.13	27.37
19-Apr	96	7.30	9.81	12.50	704.3	709.1	718.2	8.33	8.51	8.69	4.42	8.09	79.76
20-Apr	96	8.09	10.62	13.68	698.8	710.2	716.5	8.33	8.54	8.71	3.82	8.74	88.82
21-Apr	96	7.37	8.97	11.02	708.6	721.9	733.5	8.71	8.75	8.79	3.31	6.70	61.43
22-Apr	96	6.11	7.79	9.95	727.7	729.9	733.3	8.52	8.67	8.79	3.49	5.03	8.42
23-Apr	96	6.54	8.10	10.82	727.6	730.4	733.8	8.54	8.72	8.86	2.59	5.81	112.33
24-Apr	96	6.85	8.40	10.39	729.9	734.3	742.5	8.57	8.72	8.86	1.61	12.97	406.41
25-Apr	96	6.89	9.01	11.27	731.8	737.2	745.2	8.58	8.72	8.88	1.11	2.25	18.22
26-Apr	96	7.88	9.09	11.53	730.0	738.8	744.1	8.61	8.82	8.96	0.91	1.98	26.1
27-Apr	96	5.29	6.87	8.62	740.5	747.4	757.4	8.9	8.92	8.94	0.87	1.53	4.75
28-Apr	96	4.33	5.64	7.08	753.9	758.3	764.2	8.7	8.83	8.94	0.6	3.12	148.32
29-Apr	82	5.11	6.42	7.90	763.5	772.7	778.9	8.65	8.74	8.86	0.61	0.90	2.26
30-Apr	94	6.88	8.46	9.99	777.8	789.6	816.2	8.64	8.69	8.76	0.58	3.68	51.81
01-May	96	8.62	9.63	11.62	789.8	803.5	835.5	8.64	8.76	8.84	1.24	3.08	8.78
02-May	96	8.82	10.27	13.16	800.4	809.1	820.6	8.58	8.75	8.87	1.96	3.59	10.38
03-May	90	9.40	10.58	11.71	803.1	819.6	835.7	8.6	8.69	8.79	2.31	4.91	40.82
04-May	96	9.86	10.99	12.01	826.4	841.4	862.2	8.62	8.71	8.81	2.57	3.88	10.16
05-May	96	10.59	12.67	15.34	840.6	848.2	866.7	8.56	8.68	8.81	2.28	5.40	74.28
06-May	96	11.57	12.55	13.07	825.4	847.5	898.6	8.61	8.68	8.79	2.23	3.61	26.87
07-May	96	12.14	12.63	13.39	840.2	846.4	853.9	8.64	8.70	8.81	1.71	2.58	6.22
08-May	96	11.66	12.47	13.44	842.3	846.6	853.8	8.65	8.74	8.81	1.43	3.19	105.27
09-May	96	11.41	12.58	14.01	843.9	847.0	859.5	8.63	8.74	8.84	1.34	1.74	2.65
10-May	96	11.51	12.83	13.73	845.6	848.3	856.2	8.65	8.74	8.85	1.19	1.61	12.53
11-May	96	12.56	14.03	15.81	842.0	850.5	861.2	8.6	8.70	8.79	1.02	1.55	5.55
12-May	96	13.37	14.76	16.71	838.8	853.4	865.7	8.58	8.70	8.81	0.93	1.49	5.28
13-May	96	13.75	14.96	16.79	850.8	856.8	895.4	8.6	8.73	8.85	0.87	1.62	22.75
14-May	91	13.96	14.98	16.62	777.1	833.9	866.3	8.47	8.69	8.78	0.71	1.46	11.7
15-May	96	13.86	14.88	15.62	783.4	796.4	823.0	8.56	8.64	8.74	0.68	6.20	153.3
16-May	96	14.27	15.19	16.61	797.5	816.8	842.4	8.53	8.61	8.69	0.79	1.72	38.51
17-May	96	14.24	14.72	15.13	838.0	851.3	863.0	8.57	8.63	8.67	0.68	1.23	10.88
18-May	96	13.08	13.74	14.25	858.6	879.9	904.7	8.63	8.66	8.73	0.71	0.92	1.94
19-May	96	12.10	14.03	16.20	894.3	901.0	908.4	8.5	8.62	8.73	0.75	1.28	27.83
20-May	96	12.94	14.87	17.04	899.2	902.2	905.9	8.49	8.61	8.73	0.7	0.96	2.88
21-May	96	13.77	15.59	17.68	880.7	900.7	911.7	8.48	8.59	8.71	0.72	1.01	2.62
22-May	60	14.69	15.43	17.81	898.5	900.3	906.1	8.48	8.59	8.65	0.74	1.11	10.67
23-May	31	17.34	18.06	18.54	899.0	903.2	907.1	8.49	8.52	8.57	0.79	0.92	1.12
24-May	96	16.19	16.86	17.74	898.1	903.9	914.1	8.5	8.59	8.67	0.86	1.20	2.13

RSEM-L5E													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
25-May	96	13.55	14.80	16.26	892.2	898.1	904.9	8.58	8.65	8.7	0.8	1.03	3.73
26-May	96	13.02	13.75	14.72	889.9	894.5	901.3	8.51	8.56	8.6	0.7	0.86	1.63
27-May	96	13.51	14.21	15.22	892.4	895.9	903.3	8.5	8.55	8.61	0.73	1.38	2.71
28-May	96	13.70	15.13	17.35	894.9	902.3	916.4	8.49	8.58	8.68	1.1	1.64	5.54
29-May	96	14.21	15.74	16.92	896.0	903.1	916.9	8.47	8.58	8.7	0.95	1.51	5.72
30-May	96	15.05	16.50	17.69	899.0	907.6	936.0	8.47	8.58	8.7	1.08	1.57	4.67
31-May	96	15.66	17.00	18.34	905.6	911.3	932.7	8.48	8.55	8.66	0.93	1.20	3.44
01-Jun	96	16.72	18.50	20.37	906.3	911.8	922.4	8.47	8.53	8.59	0.84	1.35	3.45
02-Jun	96	18.63	20.02	21.90	909.2	914.5	923.5	8.47	8.52	8.57	0.86	1.42	6.54
03-Jun	96	19.37	20.41	21.57	912.0	921.0	939.0	8.5	8.55	8.61	0.88	1.45	5.79
04-Jun	91	18.80	19.43	20.30	922.1	931.7	986.9	8.47	8.60	8.66	0.8	1.64	3.95
05-Jun	96	17.91	19.04	20.03	927.8	933.4	945.9	8.53	8.62	8.72	0.9	1.33	4.02
06-Jun	93	17.56	18.45	19.27	933.6	955.9	978.1	8.56	8.68	8.75	0.79	2.42	23.02
07-Jun	92	17.20	17.83	18.43	972.6	983.1	992.9	8.6	8.67	8.74	0.97	1.53	3.82
08-Jun	96	16.58	17.80	19.00	993.0	1038.6	1083.1	8.49	8.62	8.73	0.88	1.96	8.53
09-Jun	96	16.75	17.66	18.93	1058.8	1080.9	1107.5	8.5	8.59	8.67	0.77	1.10	4.78
10-Jun	96	16.38	17.60	18.71	1101.6	1136.5	1180.2	8.5	8.58	8.65	0.72	1.19	3.59
11-Jun	96	16.72	18.04	19.26	1159.8	1188.0	1242.8	8.49	8.56	8.62	0.78	1.34	8.05
12-Jun	94	17.47	18.65	19.96	1202.3	1234.3	1269.0	8.49	8.58	8.65	0.85	4.37	102.11
13-Jun	92	17.75	18.83	20.15	1251.0	1269.9	1286.2	8.5	8.58	8.64	1.34	2.83	32.38
14-Jun	96	18.25	19.12	21.67	1283.1	1297.4	1339.4	8.52	8.60	8.66	1.33	1.86	7.67
15-Jun	96	18.15	18.58	19.17	1308.1	1326.9	1344.2	8.57	8.61	8.64	1.59	2.46	43.55
16-Jun	96	15.96	16.93	18.13	1342.5	1374.0	1395.1	8.62	8.68	8.74	1.95	2.51	5.74
17-Jun	91	15.35	15.87	16.47	1365.3	1379.3	1395.0	8.63	8.67	8.69	2.47	3.00	8.91
18-Jun	94	15.47	17.25	19.14	1358.9	1370.5	1382.3	8.59	8.67	8.75	2.27	3.30	11.52
19-Jun	95	16.58	18.00	19.79	1358.7	1376.0	1400.5	8.64	8.73	8.8	2.69	3.42	24.55
20-Jun	90	17.57	20.55	24.26	1372.7	1390.1	1457.6	8.62	8.72	8.82	2.17	7.18	157.41
21-Jun	96	19.50	21.42	23.83	1369.5	1396.0	1434.7	8.66	8.73	8.82	2.86	13.17	814.75
22-Jun	93	20.66	21.39	22.94	1372.4	1405.7	1459.0	8.69	8.80	8.87	2.92	7.54	84.2
23-Jun	88	19.72	21.09	22.63	1395.9	1449.2	1594.1	8.65	8.77	8.87	5.06	49.66	425.44
24-Jun	92	20.28	21.11	22.33	1361.3	1489.9	1618.0	8.71	8.75	8.79	4.34	29.45	201.56
25-Jun	96	20.06	21.94	24.13	1241.9	1442.4	1568.8	8.69	8.72	8.77	4.6	539.15	2207.7
26-Jun	96	21.77	24.36	27.65	1375.9	1457.6	1596.1	8.53	8.65	8.72	3.12	80.89	1346.7
27-Jun	96	23.44	25.95	28.49	14.3	1021.4	1428.8	8.44	8.70	8.81	2.05	784.39	2650.3
28-Jun	95	25.27	27.57	30.28	534.0	976.5	1559.4	8.54	8.69	8.79	5.32	559.52	2618.2
29-Jun	96	26.63	29.10	31.76	1422.5	1448.0	1544.6	8.48	8.52	8.57	3.93	8.00	44.89
30-Jun	96	27.16	28.36	29.70	1438.5	1470.1	1637.8	8.45	8.49	8.53	3.84	7.50	60.63
01-Jul	96	25.73	26.52	27.62	1566.9	1682.4	1808.1	8.36	8.41	8.46	3.53	6.08	49.99
02-Jul	96	24.91	25.51	26.32	1777.6	1793.5	1811.2	8.35	8.37	8.40	2.69	3.93	11.77
03-Jul	96	22.48	23.44	24.88	1808.8	1821.6	1833.7	8.38	8.40	8.42	2.12	2.99	14.84
04-Jul	96	21.85	22.40	23.09	1834.1	1848.3	1866.8	8.4	8.42	8.45	2.17	2.86	30.27
05-Jul	96	21.33	22.60	23.93	1856.4	1873.8	1882.6	8.41	8.44	8.47	2.05	4.21	27.78
06-Jul	96	21.26	23.21	25.15	1876.5	1891.7	1904.3	8.42	8.45	8.47	2.29	2.88	11.48

RSEM-L5E													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
07-Jul	96	22.26	23.99	25.58	1884.2	1902.0	1917.6	8.4	8.45	8.47	2.16	3.25	49.63
08-Jul	96	22.68	23.89	25.5	1900.9	1911.8	1927.8	8.41	8.45	8.47	2.18	2.54	3.41
09-Jul	96	22.86	24.07	25.75	1917.3	1942.6	1963.3	8.41	8.45	8.47	2.24	3.05	19.67
10-Jul	96	22.53	23.17	24.02	1960.4	1997.6	2036.5	8.42	8.44	8.46	2.34	3.15	31.14
11-Jul	96	21.76	22.61	23.63	2035.4	2091.1	2114.1	8.42	8.44	8.46	2.45	2.99	5.05
12-Jul	96	21.65	23.06	24.65	2112.8	2141.3	2163.4	8.41	8.45	8.48	2.31	3.10	28.73
13-Jul	96	22.26	23.90	26.27	2157.7	2189.4	2218.0	8.41	8.45	8.48	2.22	2.72	4.57
14-Jul	96	22.97	23.82	24.75	2210.2	2240.1	2273.7	8.43	8.45	8.47	2.3	2.83	8.35
15-Jul	96	22.79	23.72	24.70	2275.0	2299.9	2328.1	8.45	8.47	8.49	2.45	11.06	210.78
16-Jul	96	20.37	21.76	23.51	2312.8	2317.8	2325.3	8.46	8.47	8.49	2.57	3.16	9.86
17-Jul	96	18.95	19.62	20.34	2307.1	2352.2	2387.3	8.45	8.47	8.49	2.65	3.55	20.27
18-Jul	96	18.30	18.61	18.90	2379.1	2388.5	2401.0	8.47	8.48	8.50	2.69	3.39	6.83
19-Jul	96	18.17	19.54	21.71	2394.8	2425.3	2442.7	8.43	8.47	8.50	2.67	3.24	7.47
20-Jul	96	18.76	19.14	19.91	2402.8	2428.0	2434.3	8.46	8.48	8.50	2.66	3.31	9.45
21-Jul	96	18.17	19.17	21.72	2317.8	2402.3	2435.4	8.38	8.47	8.51	3.09	20.32	91.31
22-Jul	96	17.66	18.70	20.16	2282.4	2305.9	2319.6	8.33	8.36	8.39	30.01	48.93	109.64
23-Jul	96	17.25	18.86	20.64	2293.1	2301.9	2313.8	8.35	8.38	8.43	12.3	27.27	46
24-Jul	38	17.66	18.03	18.63	2293.8	2297.2	2300.9	8.39	8.41	8.43	12.6	16.70	25.99
25-Jul													
26-Jul	31	20.01	20.89	21.49	2294.5	2304.0	2312.4	8.43	8.46	8.48	8.69	11.16	19.9
27-Jul	96	19.04	20.34	21.76	2288.9	2302.2	2316.3	8.42	8.46	8.49	7.37	10.26	16.71
28-Jul	96	19.32	20.49	21.63	2292.5	2303.6	2317.3	8.42	8.46	8.50	7.69	11.05	23.68
29-Jul	96	19.78	21.09	22.76	2294.1	2307.8	2324.5	8.43	8.46	8.49	7.62	10.69	16.87
30-Jul	96	20.54	23.01	26.05	2308.3	2320.4	2338.9	8.38	8.44	8.49	7.56	9.89	20.76
31-Jul	96	21.74	24.16	27.00	2308.3	2324.4	2350.9	8.37	8.42	8.45	6.25	8.41	23.69
01-Aug	96	22.67	23.34	24.41	2308.1	2318.6	2328.3	8.38	8.41	8.45	3.54	5.56	13.64
02-Aug	96	22.19	22.60	22.98	2302.9	2311.4	2320.6	8.35	8.39	8.43	3.03	6.14	161.76
03-Aug	96	21.70	23.02	24.64	2306.3	2317.9	2335.5	8.34	8.39	8.44	3.84	6.12	19.33
04-Aug	96	21.96	23.98	26.55	2309.7	2326.7	2346.1	8.35	8.41	8.46	4.38	6.97	15.34
05-Aug	96	22.68	23.86	25.84	2294.9	2320.2	2344.5	8.39	8.43	8.47	3.94	10.06	35.75
06-Aug	96	22.10	22.89	23.93	2292.8	2302.9	2321.6	8.42	8.45	8.49	7.62	13.70	22.65
07-Aug	96	19.35	20.65	22.05	2283.6	2295.9	2311.9	8.43	8.48	8.51	6.99	9.58	15.88
08-Aug	96	18.69	20.80	23.29	2271.8	2285.3	2298.3	8.42	8.48	8.51	4.01	7.19	13.28
09-Aug	96	19.57	20.19	21.14	2274.4	2284.2	2294.1	8.45	8.49	8.53	3.56	5.70	9.7
10-Aug	96	18.33	18.87	19.50	2278.9	2286.2	2295.0	8.48	8.52	8.57	5.53	7.37	10.7
11-Aug	96	17.42	18.78	20.56	2279.3	2291.0	2308.7	8.5	8.55	8.58	4.69	7.10	13.09
12-Aug	96	17.99	19.17	20.50	2290.7	2298.0	2305.1	8.52	8.55	8.59	4.53	6.18	9.26
13-Aug	96	18.84	20.11	21.40	2288.1	2301.3	2311.5	8.54	8.57	8.61	4.07	7.36	202.1
14-Aug	96	20.19	20.59	21.06	2295.2	2299.5	2307.4	8.55	8.59	8.63	4.09	5.19	8.33
15-Aug	96	19.61	20.42	21.44	2292.6	2300.5	2310.6	8.58	8.62	8.66	4.4	6.83	20.91
16-Aug	96	18.54	18.87	19.59	2289.6	2293.5	2297.5	8.61	8.65	8.68	5.43	6.95	14.72
17-Aug	96	17.78	19.31	20.99	2288.0	2299.2	2314.2	8.61	8.65	8.69	4.78	6.47	20.66
18-Aug	96	18.52	18.94	19.47	2287.5	2297.1	2308.1	8.65	8.69	8.73	4.72	5.68	8.85

RSEM-L5E													
Day	Number of measurements*	Temperature (°C)			Specific Conductivity (µS/cm)			pH			Turbidity (NTU)		
		Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum
19-Aug	96	18.19	18.95	20.18	2285.6	2295.6	2305.7	8.04	8.63	8.76	4.94	6.06	10.77
20-Aug	96	17.98	18.70	19.50	2284.4	2291.8	2302.2	7.69	8.45	8.71	4.87	6.09	12.27
21-Aug	96	17.58	18.07	18.74	2248.7	2280.9	2298.9	7.39	8.00	8.52	4.99	12.09	129.32
22-Aug	96	15.54	16.72	17.71	2153.2	2199.8	2259.6	8.42	8.45	8.48	16.43	20.57	41.44
23-Aug	96	15.00	15.59	16.60	2123.0	2137.9	2154.5	8.33	8.39	8.43	9.02	13.36	25.77
24-Aug	96	14.66	16.38	18.57	2116.7	2128.4	2138.4	8.37	8.39	8.42	5.69	8.45	14.53
25-Aug	96	15.58	17.48	19.44	2115.3	2122.1	2135.3	8.39	8.44	8.47	4.42	5.69	9.04
26-Aug	96	16.34	17.45	18.63	2093.9	2105.7	2118.6	8.45	8.49	8.52	3.49	4.90	21.64
27-Aug	96	16.62	17.64	19.03	2046.1	2087.4	2111.3	8.48	8.51	8.53	3.18	4.36	14.74
28-Aug	96	16.83	17.41	18.14	2063.9	2088.5	2111.2	8.49	8.52	8.54	2.95	4.08	11.76
29-Aug	96	16.44	17.09	17.88	2074.4	2133.5	2303.2	8.46	8.48	8.53	2.53	10.98	270.67
30-Aug	96	15.69	16.51	17.44	2153.8	2195.5	2230.3	8.41	8.44	8.47	2.32	2.64	3.9
31-Aug	96	15.58	15.88	16.40	2208.2	2258.0	2294.4	8.42	8.45	8.47	2.11	2.43	3.9
01-Sep	96	15.04	15.37	15.75	2286.1	2296.6	2322.3	8.44	8.47	8.50	2.04	2.37	3.88
02-Sep	96	14.37	16.16	18.41	2263.2	2289.4	2334.8	8.42	8.47	8.49	2.04	2.67	6.27
03-Sep	96	15.04	16.63	18.45	2269.0	2295.9	2323.2	8.44	8.47	8.48	2.07	2.55	9.2
04-Sep	96	15.66	16.31	16.74	2283.8	2296.9	2318.2	8.46	8.48	8.49	1.94	2.46	6.6
05-Sep	96	15.53	16.34	17.32	2295.0	2321.6	2377.3	8.46	8.48	8.51	1.89	2.48	17.02
06-Sep	96	15.65	16.34	16.95	2333.5	2343.5	2379.3	8.47	8.50	8.52	1.76	2.20	4.29
07-Sep	96	15.53	16.59	17.65	2317.1	2337.6	2352.1	8.47	8.50	8.52	1.81	2.16	4.42
08-Sep	96	15.89	16.23	16.67	2315.2	2327.4	2337.6	8.49	8.50	8.52	1.68	1.96	3.44
09-Sep	96	15.85	16.44	17.62	2310.5	2318.8	2330.9	8.49	8.51	8.54	1.65	1.84	2.28
10-Sep	96	15.60	16.27	17.32	2293.2	2315.0	2322.6	8.5	8.52	8.54	1.68	2.41	13.56
11-Sep	96	15.82	16.43	17.17	2287.9	2296.5	2304.2	8.5	8.54	8.59	1.69	2.32	16.87
12-Sep	96	15.24	15.83	16.43	2244.2	2278.8	2291.8	8.54	8.55	8.57	1.67	2.03	9.49
13-Sep	96	14.77	15.34	15.87	2225.3	2239.1	2252.5	8.56	8.58	8.61	1.63	2.43	6.1
14-Sep	96	14.19	14.79	15.25	2232.8	2273.4	2319.0	8.59	8.60	8.63	2.3	2.98	6.63
15-Sep	96	13.21	13.75	14.16	2294.7	2385.8	2449.8	8.54	8.59	8.63	2.32	3.20	4.38
16-Sep	96	12.84	13.33	14.14	2445.6	2524.0	2560.5	8.59	8.60	8.62	2.78	3.70	7.17
17-Sep	96	12.19	12.60	12.97	2526.2	2579.4	2615.8	8.59	8.60	8.61	2.69	3.57	7.02
18-Sep	96	11.84	12.02	12.24	2618.2	2689.5	2729.5	8.57	8.59	8.61	2.79	3.77	10.61
19-Sep	96	11.47	11.97	12.50	2731.8	2772.2	2790.0	8.59	8.61	8.63	2.59	4.39	56.18
20-Sep	96	11.48	12.15	13.15	2778.7	2802.5	2827.5	8.6	8.63	8.66	2.25	2.98	4.89
21-Sep	96	11.74	12.39	13.20	2799.7	2837.8	2863.1	8.61	8.66	8.68	2.16	3.34	7.76
22-Sep	96	12.00	12.53	13.07	2845.9	2864.4	2886.4	8.64	8.66	8.67	3.05	5.18	12.37
23-Sep	96	10.95	11.43	11.96	2873.3	2905.3	2934.4	8.63	8.65	8.68	3.95	5.80	8.48
24-Sep	96	10.84	11.70	12.50	2882.5	2922.9	2947.7	8.58	8.61	8.63	5.88	9.66	23.2
25-Sep	96	9.51	12.41	22.13	0.3	1711.0	2887.6	7.75	8.44	9.13	2.01	11.67	126.73
26-Sep	25	9.26	9.49	9.67	1.6	3.9	7.0	8.58	8.71	8.89	1.65	1.90	2.5

*Based on temperature readings

RSEM-L6												
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
26-Aug	26	17.99	18.49	19.79	1074.7	1103.5	1115.0	8.15	8.22	8.32	0	0.91	5.4
27-Aug	96	15.94	17.74	19.71	1091.6	1113.2	1120.2	8.03	8.14	8.33	0	0.02	0.94
28-Aug	96	16.46	17.32	18.19	1111.0	1116.8	1121.0	8.14	8.26	8.37	0	0.04	1.1
29-Aug	96	15.92	16.88	17.70	1114.5	1118.1	1123.8	8.22	8.34	8.46	0	0.00	0.03
30-Aug	96	14.85	16.20	17.33	1107.5	1118.4	1130.2	8.29	8.42	8.57	0	0.00	0.17
31-Aug	96	14.94	15.54	16.26	1113.8	1117.8	1120.0	8.43	8.52	8.62	0	0.00	0.05
01-Sep	96	14.13	14.92	15.94	1116.2	1119.2	1127.3	8.45	8.56	8.70	0	0.02	1.7
02-Sep	96	12.82	14.92	17.60	1112.8	1120.3	1125.9	8.49	8.57	8.71	0	0.01	0.74
03-Sep	96	14.65	16.51	18.58	1115.1	1122.0	1206.0	8.59	8.67	8.76	0	0.45	14.92
04-Sep	65	16.11	16.64	17.30	1112.5	1121.0	1143.4	8.63	8.70	8.82	0	0.74	15.24
22-Sep	96	11.22	12.18	13.23	1151.3	1156.0	1161.2	8.12	8.18	8.25	0	0.08	6.11
23-Sep	96	9.32	10.37	11.18	1159.1	1162.6	1166.0	7.98	8.10	8.19	0	0.11	0.38
24-Sep	96	10.05	11.18	12.31	1162.2	1164.1	1166.4	8.05	8.12	8.21	0	0.16	0.43
25-Sep	96	10.51	11.78	12.83	1163.9	1166.6	1171.6	8.01	8.11	8.22	0	0.12	0.33
26-Sep	96	11.67	11.92	12.13	1157.9	1163.1	1169.0	8.03	8.11	8.17	0	0.13	0.34
27-Sep	96	11.03	11.42	11.92	1151.2	1156.2	1163.2	7.98	8.06	8.14	0	0.07	0.76
28-Sep	96	10.44	11.21	12.13	1153.9	1156.6	1159.0	7.96	8.07	8.17	0	0.04	1.04
29-Sep	52	9.86	10.27	10.82	1158.0	1160.0	1162.6	8	8.06	8.15	0	0.21	0.36
08-Nov	96	1.19	1.3028125	1.82	1175	1207.8125	1214.1	7.85	7.94	7.98	5.18	7.51	15.08
09-Nov	66	-1.07	0.8666667	2.69	0	764.26242	1234.5	6.98	7.80	7.97	0.23	22.18	409.02

*Based on temperature readings

Appendix 3-B: 2021 In Situ Field Measurement Water Quality Data

PEACE RIVER
HYDRO PARTNERS

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
85-EOP	2021-05-25	6.8	8	2480	30.1	30.5	30.1
85-EOP	2021-11-12	5.2	8.2	1264	7.1	7.1	7.1
85-EOP	2021-11-13	5.6	8.3	1025	5.3	5.3	5.3
85-EOP	2021-11-14	4.3	8.4	1027	8.4	8.4	8.4
85-EOP	2021-11-15	2.8	8.3	1047	7.8	7.8	7.8
85-IDZ	2021-05-25	7.5	8.2	977	739	751	739
85-IDZ	2021-11-13	2.1	8.2	1399	11.6	11.6	11.6
85-IDZ	2021-11-14	1.5	8.2	1032	62.3	63.1	62.3
85-IDZ	2021-11-15	4.4	8.2	1038	62.8	62.6	62.8
AC_E_HAIRPIN_DITCH	2021-02-22	9.4	7.8	438	29	29	29
AC_E_HAIRPIN_DITCH	2021-02-23	5.8	8.4	378	19	20	19
AC_E_HAIRPIN_DITCH	2021-02-26	7.7	8.7	570	12.9	13	12.9
AC_E_HAIRPIN_DITCH	2021-03-09	11.2	8.1	598	106.7	106.7	106.7
AC_E_HAIRPIN_DITCH	2021-03-11	11.6	8.4	448	80.4	79.8	80.4
AC_E_HAIRPIN_DITCH	2021-03-13	6.7	8.3	527	662	662	662
AC_E_HAIRPIN_DITCH	2021-03-17	6	8.2	226	OR	OR	OR
AC_E_HAIRPIN_DITCH	2021-03-25	14.6	8.5	525	1479	1491	1479
AC_E_HAIRPIN_DITCH	2021-03-28	5.4	5.2	655	50	48.8	50
AC_E_HAIRPIN_DITCH	2021-03-31	5.7	7.7	639	4018	3975	4018
AC_E_HAIRPIN_DITCH	2021-04-02	5.2	7.8	664	180	178	180
AC_E_HAIRPIN_DITCH	2021-04-04	8.1	7.6	656	OR	OR	OR
AC_E_HAIRPIN_DITCH	2021-04-06	2	8.2	345	2361	2364	2361
AC_E_HAIRPIN_DITCH	2021-04-08	6.6	8.1	418	46.4	46.2	46.4
AC_E_HAIRPIN_DITCH	2021-05-05	13	7.7	1249	41.2	41.1	41.2
AC_E_HAIRPIN_DITCH	2021-05-09	12.7	8	1330	OR	OR	OR
AC_E_HAIRPIN_DITCH	2021-05-17	11.6	8	420	18.3	18.3	18.3
AC_E_HAIRPIN_DITCH	2021-05-18	12.6	8	1336	34.4	34.2	34.4
AC_E_HAIRPIN_DITCH	2021-06-01	21.7	7.7	1089	2.5	2.8	2.5
AC_E_HAIRPIN_DITCH	2021-06-04	17.5	7.8	1097	1.8	1.9	1.8
AC_E_HAIRPIN_DITCH	2021-06-05	20.5	7.8	1094	1.9	1.9	1.9
AC_E_HAIRPIN_DITCH	2021-06-10	21.9	7.6	1108	4.4	4.4	4.4
AC_E_HAIRPIN_DITCH	2021-06-12	23	7.5	1091	4.2	4.3	4.2
AC_E_HAIRPIN_DITCH	2021-06-16	13.6	8.1	953	196	196	196
AC_E_HAIRPIN_DITCH	2021-06-19	20.4	8	1045	22.1	22.1	22.1
AC_E_HAIRPIN_DITCH	2021-06-22	23.6	7.6	1033	1.8	1.8	1.8
AC_E_HAIRPIN_DITCH	2021-06-24	21.2	7.7	1111	3.1	3.1	3.1
AC_E_HAIRPIN_DITCH	2021-06-26	23.5	7.9	1023	7.2	7.2	7.2
AC_E_HAIRPIN_DITCH	2021-07-01	23	7.8	1111	3.1	3.1	3.1
AC_E_HAIRPIN_DITCH	2021-07-03	18.3	8	1046	7.6	7.5	7.6
AC_E_HAIRPIN_DITCH	2021-07-13	28.4	7.8	1219	3.1	3.2	3.1
AC_E_HAIRPIN_DITCH	2021-07-15	28	7.8	1221	2.5	2.5	2.5
AC_E_HAIRPIN_DITCH	2021-07-17	16.7	8.2	1257	6.7	6.7	6.7
AC_E_HAIRPIN_DITCH	2021-07-19	22	8	1257	2.5	2.4	2.5
AC_E_HAIRPIN_DITCH	2021-07-21	18.9	7.4	1243	109	112	109
AC_E_HAIRPIN_DITCH	2021-07-24	24.1	7.8	1589	6.5	6.4	6.5
AC_E_HAIRPIN_DITCH	2021-07-25	24.8	7.9	1386	5.4	5.4	5.4
AC_E_HAIRPIN_DITCH	2021-07-30	23.6	8.1	1143	15.1	15.2	15.1
AC_E_HAIRPIN_DITCH	2021-08-07	18.3	8.1	1076	1005	1007	1005
AC_E_HAIRPIN_DITCH	2021-08-25	24.3	7.8	1404	8.1	8	8.1
AC_E_HAIRPIN_DITCH	2021-08-27	20.7	7.8	1637	14.3	14.4	14.3
AC_E_HAIRPIN_DITCH	2021-08-29	19.2	7.8	1508	8.7	8.8	8.7
AC_E_HAIRPIN_DITCH	2021-09-14	15.7	8.2	745	47.8	48	47.8
AC_E_HAIRPIN_DITCH	2021-09-18	13	8.1	999	55.1	54.9	55.1
AC_E_HAIRPIN_DITCH	2021-10-07	11.5	8.1	1149	3.6	3.6	3.6
AC_E_HAIRPIN_DITCH	2021-10-10	9.2	8.4	1108	3.4	3.4	3.4
AC_E_HAIRPIN_DITCH	2021-10-12	7.7	8.2	1133	3.2	3.2	3.2
AC_E_HAIRPIN_DITCH	2021-11-03	3.4	8.3	1326	10.8	10.6	10.8
AC-E-Sump	2021-01-05	4.5	8	994	7.5	7.4	7.5
AC-E-Sump	2021-01-19	8.5	7.9	954	11.1	11.2	11.1
AC-E-Sump	2021-01-21	6.3	8.4	1043	37.8	37.8	37.8
AC-E-Sump	2021-01-23	7.1	7.9	983	4	3.9	4
AC-E-Sump	2021-03-09	0.5	7	214	58.3	58.2	58.3
AC-E-Sump	2021-03-13	2.4	8.4	413	53.5	53.9	53.5
AC-E-Sump	2021-03-17	3	7.3	843	2568	2571	2568
AC-E-Sump	2021-03-20	3.4	8.4	683	26.5	26.4	26.5
AC-E-Sump	2021-03-26	4.7	8.4	395	197	197	197
AC-E-Sump	2021-03-31	3.4	7.6	747	92.4	92.3	92.4
AC-E-Sump	2021-04-02	3.2	7.9	1141	30	29.9	30
AC-E-Sump	2021-04-04	7.5	7.6	1272	27.2	28	27.2
AC-E-Sump	2021-04-06	2.7	8.1	1544	8.5	8.6	8.5
AC-E-Sump	2021-04-08	7	7.9	1452	16.5	16.3	16.5
AC-E-Sump	2021-04-10	1.8	8.1	1934	18.3	18.4	18.3
AC-E-Sump	2021-04-14	14.9	7.7	1922	21.1	21.1	21.1
AC-E-Sump	2021-04-29	7.7	8.4	2570	36.7	38	36.7
AC-E-Sump	2021-05-01	15.1	9.1	2680	12.2	12.2	12.2
AC-E-Sump	2021-05-05	18	8.6	2130	12.6	12.6	12.6
AC-E-Sump	2021-05-09	16	8.6	2440	9.7	9.7	9.7
AC-E-Sump	2021-05-11	16.7	8.8	2530	7.4	7.3	7.4
AC-E-Sump	2021-05-16	16.2	7.8	4350	12.4	12.3	12.4
AC-E-Sump	2021-05-19	17.6	8.4	3880	42.9	42.8	42.9
AC-E-Sump	2021-05-22	18.7	8.5	3820	12	12.5	12
AC-E-Sump	2021-06-12	22.2	8.2	3740	16	15.3	16
AC-E-Sump	2021-06-16	14.6	8.2	3520	29.6	29.4	29.6
AC-E-Sump	2021-06-19	22.4	8.4	2640	13.3	13.2	13.3
AC-E-Sump	2021-06-22	22.9	8.2	2880	28.8	28.7	28.8
AC-E-Sump	2021-06-24	21.9	8.2	3120	29.4	29.6	29.4
AC-E-Sump	2021-06-26	24.8	8.2	3190	26.8	26.8	26.8
AC-E-Sump	2021-06-28	30.6	8.2	3270	13.6	13.6	13.6
AC-E-Sump	2021-07-01	25.7	8.3	3490	12.3	11.9	12.3
AC-E-Sump	2021-07-03	20.5	8.4	3550	11.9	12	11.9
AC-E-Sump	2021-07-15	25.6	9.4	4310	4	4.1	4
AC-E-Sump	2021-07-17	15.7	9.1	4310	4.4	4.4	4.4
AC-E-Sump	2021-07-19	20	9.5	4220	4.3	4.3	4.3
AC-E-Sump	2021-07-21	24.4	8.4	2500	57.8	58.6	57.8
AC-E-Sump	2021-08-25	18.8	7.4	2170	8.3	8.3	8.3
AC-E-Sump	2021-08-27	11.8	7.7	2310	11.7	11.7	11.7
AC-E-Sump	2021-09-29	12.7	8.5	3720	6	6	6
AC-E-Sump	2021-10-10	7.6	8.6	4340	2.5	2.5	2.5
AC-W-Hairpin-Sump	2021-05-17	5.7	7.2	874	14.4	14.5	14.4
AC-W-Hairpin-Sump	2021-05-19	8.3	7.4	1184	16.1	15.9	16.1
AC-W-Hairpin-Sump	2021-05-20	12.7	7.5	962	4.6	4.6	4.6
AC-W-Hairpin-Sump	2021-05-23	10	7.3	903	1.3	1.2	1.3
AC-W-Hairpin-Sump	2021-06-05	10.6	7.3	909	2.9	3	2.9
AC-W-Hairpin-Sump	2021-06-10	11.7	7.7	877	41	40	41
AC-W-Sump	2021-03-13	3.6	8.2	1449	17.1	17.1	17.1
AC-W-Sump	2021-03-17	4.5	7	1477	1101	1100	1101
AC-W-Sump	2021-03-20	0.8	8.1	1361	15.6	15.4	15.6

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
AC-W-Sump	2021-03-25	2.1	8.4	1006	99	99	99
AC-W-Sump	2021-03-28	2.3	6.6	875	18	17.9	18
AC-W-Sump	2021-03-31	1.6	7.5	804	78.4	76.9	78.4
AC-W-Sump	2021-04-02	2.6	7.6	820	80	79	80
AC-W-Sump	2021-04-04	4.2	7.7	833	62.1	63.4	62.1
AC-W-Sump	2021-04-06	1.5	8	790	18.6	18.4	18.6
AC-W-Sump	2021-04-08	2.8	8	896	73.5	73.6	73.5
AC-W-Sump	2021-04-10	0.6	8.1	1515	8	8.1	8
AC-W-Sump	2021-04-14	13.8	7.3	1036	864	865	864
AC-W-Sump	2021-04-29	3.1	8	1309	20.5	20.3	20.5
AC-W-Sump	2021-05-01	10.1	8	1407	17.6	17.8	17.6
AC-W-Sump	2021-05-08	12.3	7.4	1428	5.2	5.2	5.2
Area_21_Pond	2021-08-19	18.1	9	342	100	100	100
Area_21_Pond	2021-08-20	20.8	9	296	59.4	59.4	59.4
Area_21_Pond	2021-08-21	20.1	8.9	263	55.6	55.6	55.6
Area_21_Pond	2021-08-22	12.1	8.3	825	101	101	101
Area_21_Pond	2021-08-23	15.8	8.3	342	97.4	97.3	97.4
Area_21_Pond	2021-08-24	19.2	8.7	382	38.5	38	38.5
Area_21_Pond	2021-08-25	20.9	8.3	414	60.3	60.2	60.3
Area_21_Pond	2021-08-26	15.1	8.8	411	792	793	792
Area_21_Pond	2021-08-27	16.6	8.1	345	70	69	70
Area_21_Pond	2021-08-28	14.5	6.8	437	88.8	88.8	88.8
Area_21_Pond	2021-08-29	15.2	7.1	404	93.1	94	93.1
Area_21_Pond	2021-08-30	19.3	7.6	343	65.2	65.2	65.2
Area_21_Pond	2021-08-31	15.2	7.4	334	103.1	103.5	103.1
Area_21_Pond	2021-09-01	16.8	7.6	341	71.2	71.6	71.2
Area_21_Pond	2021-09-03	23.5	7.6	424	74	74.8	74
Area_21_Pond	2021-09-04	17.9	7.3	368	44.4	44.5	44.4
Area_21_Pond	2021-09-06	15	8.7	379	67.1	67	67.1
Area_21_Pond	2021-09-08	14.4	8.5	333	32.8	32.8	32.8
Area_21_Pond	2021-09-09	18.2	7.4	853	18.2	18.2	18.2
Area_21_Pond	2021-09-10	18.3	8.6	452	18.8	18.8	18.8
Area_21_Pond	2021-09-12	18.1	8.6	438	16.5	16.5	16.5
Area_21_Pond	2021-09-14	14.8	8.4	569	83.2	83.7	83.2
Area_21_Pond	2021-09-16	11.4	7.6	723	13	13	13
Area_21_Pond	2021-09-18	10.3	8	558	32.6	32.7	32.6
Area_21_Pond	2021-09-20	15.1	8.1	523	6.2	6.3	6.2
Area_21_Pond	2021-09-22	13.4	8.4	296	828	827	828
Area_21_Pond	2021-09-25	14.7	8.9	230	153	152	153
Area_21_Pond	2021-09-29	12.4	8.4	243	226	225	226
Area_21_Pond	2021-10-01	9.5	7.2	277	45.6	45.5	45.6
Area_21_Pond	2021-10-02	11.1	8.2	288	69.3	69.2	69.3
Area_21_Pond	2021-10-08	9.2	8.2	413	108	108.3	108
Area_21_Pond	2021-10-19	6.4	7	2330	50	50	50
Area_23_BT	2021-10-30	5.2	8.3	824	905	908	905
Area_23_BT	2021-10-31	5	8.2	847	15.3	15.4	15.3
Area_23_BT	2021-11-01	2.4	8.1	782	OR	OR	OR
Area_23_BT	2021-11-02	4.1	8.7	764	OR	OR	OR
Area_23_BT	2021-11-03	5.8	8.2	826	23.5	23.5	23.5
Area_23_BT	2021-11-04	7.6	8.4	814	715	714	715
Area_23_BT	2021-11-06	6.2	8.8	788	OR	OR	OR
Area_23_BT	2021-11-10	2	8.6	888	55.7	55.8	55.7
Area_23_BT	2021-11-24	3.9	7.8	1066	13	14	13
Area_23_BT	2021-11-25	9	8.2	917	65	65	65
Area_23_BT	2021-11-28	4	8.5	1002	35.9	36.1	35.9
Area_23_BT	2021-12-04	0.3	8.5	907	13.3	13.3	13.3
Area_23_BT	2021-12-21	5.7	8.1	1097	6.4	6.4	6.4
Area_23_BT	2021-12-23	5.1	8.5	982	4.5	4.4	4.5
Area_23_BT	2021-12-22	5.7	8.2	1059	5.1	5.1	5.1
Area_23_BT	2021-12-24	4.8	8.6	1019	6.7	6.7	6.7
Area_23_BT	2021-12-25	1.2	8.3	1022	3	3	3
Area_23_BT	2021-12-30	4	8.4	1024	3	3	3
Area_30_EOP	2021-04-03	6.4	8	498	17.7	17.7	17.7
Area_30_EOP	2021-04-07	4.6	8	525	5.1	5.2	5.1
Area_30_EOP	2021-04-11	1.4	8.4	781	12.4	12.4	12.4
Area_30_EOP	2021-05-01	12	7.8	1518	4.4	4.4	4.4
Area_30_EOP	2021-05-22	17.4	8.2	1626	4.6	4.6	4.6
Area_30_EOP	2021-06-10	20.2	8.9	1732	4.4	4.4	4.4
Area_30_EOP	2021-06-17	16.8	8.5	1714	5	5	5
Area_30_EOP	2021-07-18	13.7	8	2940	4.6	4.6	4.6
Area_30_EOP	2021-07-22	17.3	8.3	1701	3.7	3.7	3.7
Area_30_EOP	2021-08-07	15.4	8.1	1689	4.1	4	4.1
Area_30_EOP	2021-08-22	11.4	8	902	57.6	57.8	57.6
Area_30_EOP	2021-08-27	19.1	8.1	1944	3.8	3.8	3.8
Area_30_EOP	2021-09-02	16.6	8.2	2210	2.4	2.4	2.4
Area_30_EOP	2021-09-15	12.3	8	2360	12.8	12.9	12.8
Area_30_EOP	2021-09-19	13.2	8.2	2450	3.2	3.2	3.2
Area_30_EOP	2021-10-07	7.1	8.2	2460	18.4	18.3	18.4
Area_30_EOP	2021-11-05	5.2	8	524	5.7	5.7	5.7
Area_A_N_Ditch	2021-03-09	1.3	7.3	415	79.2	79.4	79.2
Area_A_N_Ditch	2021-03-16	1.4	7.1	644	99.9	99.8	99.9
Area_A_N_Ditch	2021-03-18	1.3	8.7	253	77.8	77.7	77.8
Area_A_N_Ditch	2021-03-25	2.8	7.6	448	16.6	16.9	16.6
Area_A_N_Ditch	2021-03-28	1.8	7.7	383	109	109	109
Area_A_N_Ditch	2021-03-30	2.4	7.6	486	8.3	8.3	8.3
Area_A_N_Ditch	2021-04-01	1.6	8.1	325	26.5	27	26.5
Area_A_N_Ditch	2021-04-03	1.9	8	310	13.2	13.3	13.2
Area_A_N_Ditch	2021-04-05	1	8.2	245	7.4	7.3	7.4
Area_A_N_Ditch	2021-04-07	1.2	8.2	313	6.8	6.8	6.8
Area_A_N_Ditch	2021-04-09	0.9	8	350	5.8	5.7	5.8
Area_A_N_Ditch	2021-04-11	1.3	8	414	13.4	13.4	13.4
Area_A_N_Ditch	2021-04-13	7.7	7.6	349	8.4	8.3	8.4
Area_A_N_Ditch	2021-04-28	5.2	8	516	8.4	8.2	8.4
Area_A_N_Ditch	2021-04-30	11.3	8.1	554	30.6	30.6	30.6
Area_A_N_Ditch	2021-05-01	10.1	7.6	452	52.4	53.4	52.4
Area_A_N_Ditch	2021-05-02	14.3	8	447	25.6	25.6	25.6
Area_A_N_Ditch	2021-05-06	10.7	7.3	463	4.1	4.1	4.1
Area_A_N_Ditch	2021-05-08	9.5	7.2	409	8.1	8.1	8.1
Area_A_N_Ditch	2021-05-16	10.5	7.9	455	2.8	2.8	2.8
Area_A_N_Ditch	2021-05-22	11.4	7.7	417	5	5	5
Area_A_N_Ditch	2021-05-29	16.5	7.3	444	6.3	6.3	6.3
Area_A_N_Ditch	2021-06-01	16.1	7.8	442	2.9	2.9	2.9
Area_A_N_Ditch	2021-06-05	14.2	7.8	452	4.4	4.4	4.4
Area_A_N_Ditch	2021-06-07	15.1	8	436	11.4	11.8	11.4
Area_A_N_Ditch	2021-06-13	13.6	7.7	463	4.7	4.7	4.7
Area_A_N_Ditch	2021-06-18	16.4	7.6	459	13.8	13.7	13.8
Area_A_N_Ditch	2021-06-25	20	7.8	524	1.9	1.9	1.9
Area_A_N_Ditch	2021-07-02	19.9	7.6	514	1.6	1.6	1.6
Area_A_N_Ditch	2021-07-16	13.7	7.8	596	3.5	3.5	3.5
Area_A_N_Ditch	2021-07-19	18	7.8	576	2.2	2.2	2.2

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
Area_A_N_Ditch	2021-07-21	14.9	7.8	535	31.9	31.8	31.9
Area_A_N_Ditch	2021-07-24	19.1	8	564	3	3.1	3
Area_A_N_Ditch	2021-07-28	18.7	7.7	596	4.7	4.7	4.7
Area_A_N_Ditch	2021-08-03	17.7	7.7	632	7.1	7.2	7.1
Area_A_N_Ditch	2021-08-05	19.9	7.8	600	5.7	5.8	5.7
Area_A_N_Ditch	2021-08-07	15.3	7.9	589	5.5	5.5	5.5
Area_A_N_Ditch	2021-08-26	13.8	7.8	630	14.5	14.4	14.5
Area_A_N_Ditch	2021-08-29	16.1	7.8	546	6.7	6.8	6.7
Area_A_N_Ditch	2021-09-02	17.5	8.1	548	11.8	11.7	11.8
Area_A_N_Ditch	2021-09-12	17.5	8.1	470	13.4	13.4	13.4
Area_A_N_Ditch	2021-09-16	13.8	7.7	598	6.4	6.4	6.4
Area_A_N_Ditch	2021-09-20	15.1	8.1	523	6.2	6.3	6.2
Area_A_N_Ditch	2021-09-26	14.1	8.1	575	6.9	6.9	6.9
Area_A_N_Ditch	2021-10-02	12	8	530	7	7	7
Area_A_N_Ditch	2021-10-05	11.1	8	574	2.5	2.4	2.5
Area_A_N_Ditch	2021-10-09	12.6	8.3	467	3.6	3.5	3.6
Area_A_N_Ditch	2021-10-12	10.9	7.6	508	3.7	3.6	3.7
Area_A_N_Ditch	2021-10-14	10.8	8.1	496	3.4	3.4	3.4
Area_A_N_Ditch	2021-10-17	10.1	7.9	519	4.5	4.5	4.5
Area_A_N_Ditch	2021-10-24	10	7.6	482	3.3	3.3	3.3
Area_A_N_Ditch	2021-10-26	10	7.1	511	2.8	2.7	2.8
Area_A_N_Ditch	2021-10-28	9.4	8.2	471	2.7	2.7	2.7
Area_A_N_Ditch	2021-10-30	8.1	7.9	551	8.1	8	8.1
Area_A_N_Ditch	2021-11-01	7.9	7.8	546	2.8	2.8	2.8
Area_A_N_Ditch	2021-11-03	8	7.8	545	4.8	4.8	4.8
Area_A_N_Ditch	2021-11-04	8.5	7.8	515	3.2	3.1	3.2
Area_A_N_Ditch	2021-11-05	8.2	7.7	533	6	6	6
Area_A_N_Ditch	2021-11-06	7.5	8	567	4.9	4.8	4.9
Area_A_N_Ditch	2021-11-07	7.9	7.8	568	4.4	4.5	4.4
Area_A_N_Ditch	2021-11-08	5.9	7.9	541	2.2	2.2	2.2
Area_A_N_Ditch	2021-11-09	5.9	8	521	4.5	4.5	4.5
Area_A_N_Ditch	2021-11-10	6	7.8	514	3.4	3.4	3.4
Area_A_N_Ditch	2021-11-11	5.5	7.8	524	4.9	4.9	4.9
Area_A_N_Ditch	2021-11-12	5.5	7.9	512	2.9	2.9	2.9
Area_A_N_Ditch	2021-11-13	6.1	8.1	532	4.9	4.9	4.9
Area_A_N_Ditch	2021-11-14	4.9	8	529	4.1	4.1	4.1
Area_A_N_Ditch	2021-11-15	3.1	7.8	556	4.5	4.5	4.5
Area_A_N_Ditch	2021-11-16	3.6	8	579	3.6	3.7	3.6
Area_A_N_Ditch	2021-11-17	5	7.8	512	5.2	5.3	5.2
Area_A_N_Ditch	2021-11-18	3.5	7.8	568	5	5	5
Area_A_N_Ditch	2021-11-22	2.5	7.9	458	4.6	4.7	4.6
Area_A_N_Ditch	2021-11-25	2.9	7.5	582	5.2	5.2	5.2
Area_A_N_Ditch	2021-11-28	3.3	7.7	621	8	7.9	8
Area_A_N_Ditch	2021-11-30	3.7	7.7	343	4	4	4
Area_A_N_Ditch	2021-12-01	3.7	7.7	570	3.3	3.3	3.3
Area_A_N_Ditch	2021-12-02	3.1	7.8	604	4	4	4
Area_A_N_Ditch	2021-12-03	3	7.8	591	3.4	3.4	3.4
Area_A_N_Ditch	2021-12-04	4.7	7.7	557	2.7	2.7	2.7
Area_A_N_Ditch	2021-12-05	3.9	7.4	574	2.9	2.9	2.9
Area_A_N_Ditch	2021-12-08	5.5	7.6	547	2.9	2.9	2.9
Area_A_N_Ditch	2021-12-10	5.5	7.7	561	2.9	2.8	2.9
Area_A_N_Ditch	2021-12-11	5.1	7.6	598	2.9	2.8	2.9
Area_A_N_Ditch	2021-12-12	2.9	7.7	622	4.5	4.5	4.5
Area_A_NE_Sump	2021-11-05	4.7	7.8	799	4.4	4.5	4.4
Area_A_NE_Sump	2021-11-04	3.7	8.2	688	33	33.2	33
Area_A_NE_Sump	2021-11-03	3.1	8.1	787	2.6	2.6	2.6
Area_A_NE_Sump	2021-11-02	2.9	8.1	837	9	9	9
Area_A_NE_Sump	2021-11-01	1	8.1	614	4.2	4.2	4.2
Area_A_NE_Sump	2021-11-06	4.6	8.5	715	2.8	2.8	2.8
Area_A_NE_Sump	2021-11-07	5	8	700	6.5	6.4	6.5
Area_A_NE_Sump	2021-11-08	4.8	8	709	4.4	4.4	4.4
Area_A_NE_Sump	2021-11-09	2.7	8.4	723	4	4	4
Area_A_NE_Sump	2021-11-10	1.9	8.4	734	1.9	1.9	1.9
Area_A_NE_Sump	2021-11-11	1.6	8.2	736	2.9	2.9	2.9
Area_A_NE_Sump	2021-11-12	2.7	8.1	729	3.4	3.4	3.4
Area_A_NE_Sump	2021-11-13	3.4	8.5	736	5	5	5
Area_A_NE_Sump	2021-11-14	2.3	8.2	728	3.4	3.4	3.4
Area_A_NE_Sump	2021-11-15	1.1	8.2	730	2.8	2.8	2.8
Area_A_NE_Sump	2021-11-16	1.1	7.9	821	2.6	2.6	2.6
CVC_BT	2021-05-06	14.5	6.9	1678	1.6	1.6	1.6
CVC_BT	2021-05-07	12.6	7.4	1658	1.4	1.3	1.4
CVC_BT	2021-05-09	12.1	8.5	1652	4.7	4.5	4.7
CVC_BT	2021-06-08	15.4	12.3	3790	38.1	38.1	38.1
CVC_BT	2021-06-11	15.6	12.4	3500	58.9	58.4	58.9
CVC_BT	2021-06-12	16.3	6.3	2250	2	2.1	2
CVC_BT	2021-07-15	20.9	9.4	2080	2.8	2.8	2.8
CVC_BT	2021-07-19	18.1	6.8	3110	51.3	51.7	51.3
CVC_BT	2021-07-26	18	7.5	2460	4	3.9	4
CVC_BT	2021-08-05	21.1	6.4	1641	2.7	2.8	2.7
CVC_BT	2021-08-07	17.8	6.5	1195	2	2.1	2
CVC_BT	2021-08-09	19.2	6.6	1799	1.2	1.2	1.2
CVC_BT	2021-08-24	15.5	6.1	1372	3.8	3.9	3.8
CVC_BT	2021-08-26	18.4	7.3	1270	3.2	3.1	3.2
CVC_BT	2021-08-28	15.3	6.3	2310	35.8	36	35.8
CVC_BT	2021-08-29	16.6	6.2	1175	13.5	13.5	13.5
CVC_BT	2021-08-30	14	10	1632	42	41.9	42
CVC_BT	2021-09-04	16.8	7.4	1774	3.1	3.2	3.1
CVC_BT	2021-09-16	13.3	6.6	2050	4.2	4.2	4.2
CVC_BT	2021-09-18	11.4	7.7	2050	35.4	35.4	35.4
CVC_BT	2021-09-20	13.3	7.4	2440	OR	OR	OR
CVC_BT	2021-09-22	14.3	7.3	2230	91.9	91	91.9
CVC_BT	2021-09-26	13.8	7	255	2587	2593	2587
CVC_BT	2021-10-09	10.5	7.5	2060	3.6	3.6	3.6
CVC_BT	2021-10-17	7.7	6.2	2550	891	891	891
CVC_BT	2021-05-19	12.5	7.9	1921	16.2	16.9	16.2
CVC_BT	2021-05-27	14.1	7.2	2070	4.6	4.6	4.6
CVC_BT	2021-06-17	15.9	8.4	2230	163	163	163
CVC_BT	2021-06-26	20.2	6.5	2240	8.3	8.4	8.3
CVC_BT	2021-07-27	17.8	6.6	2380	1.6	1.6	1.6
CVC_BT	2021-08-01	22.3	7.5	3070	9.7	9.7	9.7
CVC_BT	2021-08-11	20	7	1837	3	3	3
CVC_BT	2021-08-22	13.1	7.6	1350	11.2	11.1	11.2
CVC_BT	2021-09-08	16.5	6.6	1645	5	5	5
CVC_BT	2021-10-01	13.2	6.9	1930	60.1	59.9	60.1
CVC_BT	2021-10-04	8.7	6.8	1906	9.4	9.4	9.4
CVC_BT	2021-10-06	7.8	6.5	1997	3.5	3.4	3.5
DC-discharge-R6-WP	2021-03-02		5.3	2890	990	987	990
DC-discharge-R6-WP	2021-03-03	7.8	8.2	469	1635	1648	1635
DC-discharge-R6-WP	2021-03-09	5.9	8.2	599	58	63	58
DC-discharge-R6-WP	2021-03-10	6.9	8.1	640	31.5	31	31.5

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
DC-discharge-R6-WP	2021-03-11	4.7	8.4	604	7.8	7.8	7.8
DC-discharge-R6-WP	2021-03-12	5.7	8.1	636	79.8	82.8	79.8
DC-discharge-R6-WP	2021-03-13	5.2	8.2	528	5.2	5.2	5.2
DC-discharge-R6-WP	2021-03-14	3.3	8.3	580	3679	3679	3679
DC-discharge-R6-WP	2021-03-15	3	8.1	672	25.8	25.3	25.8
DC-discharge-R6-WP	2021-03-16	8	8.4	510	1973	1971	1973
DC-discharge-R6-WP	2021-03-17	10.2	8.4	490	58.2	58.7	58.2
DC-discharge-R6-WP	2021-03-18	6.8	8.3	540	60.4	60.3	60.4
DC-discharge-R6-WP	2021-03-20	6.1	8.4	335	33.7	33.6	33.7
DC-discharge-R6-WP	2021-03-22	5	8.2	449	89	89.7	89
DC-discharge-R6-WP	2021-03-23	4.1	8.4	388	62	62	62
DC-discharge-R6-WP	2021-03-24	8.5	8.4	348	1362	1305	1362
DC-discharge-R6-WP	2021-03-25	6.7	8.7	375	2151	2133	2151
DC-discharge-R6-WP	2021-03-26	8.2	8.6	434	1447	1477	1447
DC-discharge-R6-WP	2021-03-27	6.5	8.6	407	62.2	62.2	62.2
DC-discharge-R6-WP	2021-03-28	4.8	8.4	458	106	106	106
DC-discharge-R6-WP	2021-03-29	3.2	8.4	441	46.8	46.7	46.8
DC-discharge-R6-WP	2021-03-30	6.9	8.5	485	65.5	65.5	65.5
DC-discharge-R6-WP	2021-03-31	8.1	8.5	405	OR	OR	OR
DC-discharge-R6-WP	2021-04-01	8.2	8.4	449	86.2	85.9	86.2
DC-discharge-R6-WP	2021-04-02	6.5	8.4	666	2098	2093	2098
DC-discharge-R6-WP	2021-04-03	9.7	8.5	798	OR	OR	OR
DC-discharge-R6-WP	2021-04-04	10.8	8.6	433	1386	1385	1386
DC-discharge-R6-WP	2021-04-05	6.9	8.1	424	729	730	729
DC-discharge-R6-WP	2021-04-06	7.4	8.6	377	2173	2179	2173
DC-discharge-R6-WP	2021-04-07	6.3	8.3	395	734	732	734
DC-discharge-R6-WP	2021-04-08	5.9	8.3	445	OR	OR	OR
DC-discharge-R6-WP	2021-04-09	8.8	8.8	445	OR	OR	OR
DC-discharge-R6-WP	2021-04-10	2.3	8.5	469	80	78	80
DC-discharge-R6-WP	2021-04-11	9.1	8.5	516	980	981	980
DC-discharge-R6-WP	2021-04-12	4.7	8.2	375	2352	2351	2352
DC-discharge-R6-WP	2021-04-14	13.6	8.4	403	1929	1931	1929
DC-discharge-R6-WP	2021-04-13	11.7	8.1	409	1593	1535	1593
DC-discharge-R6-WP	2021-04-15	13.7	8.2	387	63.8	63.1	63.8
DC-discharge-R6-WP	2021-04-16	13.7	8.2	387	63.8	63.1	63.8
DC-discharge-R6-WP	2021-04-16	14.6	8.4	412	120	119	120
DC-discharge-R6-WP	2021-04-28	6.7	8.2	470	896	896	896
DC-discharge-R6-WP	2021-04-29	6.3	8.6	509	1543	1544	1543
DC-discharge-R6-WP	2021-04-30	11.3	8.4	436	908	910	908
DC-discharge-R6-WP	2021-05-01	10.8	8.3	435	63.9	64.1	63.9
DC-discharge-R6-WP	2021-05-02	13.9	8.5	439	1429	1430	1429
DC-discharge-R6-WP	2021-05-03	9.7	8.7	462	657	656	657
DC-discharge-R6-WP	2021-05-04	13	8	388	28.9	28.7	28.9
DC-discharge-R6-WP	2021-05-05	15.3	7.8	397	643	645	643
DC-discharge-R6-WP	2021-05-06	13.5	8.4	492	2323	2264	2323
DC-discharge-R6-WP	2021-05-07	13.3	8.4	390	103	103	103
DC-discharge-R6-WP	2021-05-08	14.1	8.1	401	1858	1855	1858
DC-discharge-R6-WP	2021-05-09	15.4	8.2	366	79.3	79	79.3
DC-discharge-R6-WP	2021-05-10	5.6	8.1	409	19.3	19.2	19.3
DC-discharge-R6-WP	2021-05-11	10	8	427	49	50	49
DC-discharge-R6-WP	2021-05-12	10.1	8.6	423	840	837	840
DC-discharge-R6-WP	2021-05-13	12.1	8.2	425	2912	2933	2912
DC-discharge-R6-WP	2021-05-14	10.7	7.9	431	51	52	51
DC-discharge-R6-WP	2021-05-15	13.3	8.2	440	53.5	53.1	53.5
DC-discharge-R6-WP	2021-05-16	11.9	8.2	422	25	24.9	25
DC-discharge-R6-WP	2021-05-17	14.1	8.5	413	44.5	45.7	44.5
DC-discharge-R6-WP	2021-05-18	9.8	8.6	482	150	149	150
DC-discharge-R6-WP	2021-05-19	14.2	8.2	407	OR	OR	OR
DC-discharge-R6-WP	2021-05-20	12.3	8.1	455	88.7	89.1	88.7
DC-discharge-R6-WP	2021-05-21	10.5	8.1	466	28	28	28
DC-discharge-R6-WP	2021-05-22	10.5	8.1	441	1071	1074	1071
DC-discharge-R6-WP	2021-05-23	15.9	8.1	413	6.1	6.2	6.1
DC-discharge-R6-WP	2021-05-24	14.3	7.8	395	51.7	51.5	51.7
DC-discharge-R6-WP	2021-05-25	7	8.8	517	OR	OR	OR
DC-discharge-R6-WP	2021-05-26	11.9	8	428	109.7	109.6	109.7
DC-discharge-R6-WP	2021-05-27	11.3	7.9	496	49.9	49.8	49.9
DC-discharge-R6-WP	2021-05-29	16.4	7.9	459	78.4	78.3	78.4
DC-discharge-R6-WP	2021-05-30	16.1	8	538	128	128	128
DC-discharge-R6-WP	2021-05-31	9.3	7.9	480	4.2	4.3	4.2
DC-discharge-R6-WP	2021-06-01	15.7	8	645	1950	1947	1950
DC-discharge-R6-WP	2021-06-02	0.6	8.1	18600	OR	OR	OR
DC-discharge-R6-WP	2021-06-03	15.3	8.3	510	13.1	13.1	13.1
DC-discharge-R6-WP	2021-06-04	12.9	8.2	504	18.8	18.8	18.8
DC-discharge-R6-WP	2021-06-05	13.7	8.5	538	20	20.1	20
DC-discharge-R6-WP	2021-06-06	13.3	8.5	563	88	88	88
DC-discharge-R6-WP	2021-06-07	13.2	8.2	732	49	50	49
DC-discharge-R6-WP	2021-06-08	14.4	8.4	587	51.9	52.5	51.9
DC-discharge-R6-WP	2021-06-09	15.4	8.2	545	32.7	32.9	32.7
DC-discharge-R6-WP	2021-06-10	15.5	8	506	35.6	36.6	35.6
DC-discharge-R6-WP	2021-06-11	17.5	8.2	447	18.2	18.3	18.2
DC-discharge-R6-WP	2021-06-12	15.1	8	456	26.6	26.7	26.6
DC-discharge-R6-WP	2021-06-13	15.8	8.5	524	2313	2311	2313
DC-discharge-R6-WP	2021-06-14	11.9	7.8	418	83.9	85	83.9
DC-discharge-R6-WP	2021-06-15	13.3	8	415	53.7	53.9	53.7
DC-discharge-R6-WP	2021-06-15	18	7.4	1757	3.5	3.4	3.5
DC-discharge-R6-WP	2021-06-16	11.7	8.1	511	2659	2630	2659
DC-discharge-R6-WP	2021-06-17	14.2	8.2	382	81.1	81.6	81.1
DC-discharge-R6-WP	2021-06-18	16.2	8.1	393	56	55	56
DC-discharge-R6-WP	2021-06-19	17	8.2	465	2081	2079	2081
DC-discharge-R6-WP	2021-06-20	16.9	7.8	366	133	135	133
DC-discharge-R6-WP	2021-06-21	12.3	7.7	379	35.8	35.7	35.8
DC-discharge-R6-WP	2021-06-22	17.2	8.1	391	17.1	17.5	17.1
DC-discharge-R6-WP	2021-06-23	15.1	7.9	396	61	59	61
DC-discharge-R6-WP	2021-06-24	13.8	8.2	397	38.3	38.5	38.3
DC-discharge-R6-WP	2021-06-25	25.1	7.6	1496	2	2	2
DC-discharge-R6-WP	2021-06-26	17.4	8.1	391	45.1	45.2	45.1
DC-discharge-R6-WP	2021-06-27	17.2	8	389	16.5	15.8	16.5
DC-discharge-R6-WP	2021-06-28	18	8	390	4.2	4.3	4.2
DC-discharge-R6-WP	2021-06-29	18	7.8	385	4.5	4.5	4.5
DC-discharge-R6-WP	2021-06-30	17.1	7.6	384	4.8	4.8	4.8
DC-discharge-R6-WP	2021-07-01	14.8	7.9	361	40.8	40.7	40.8
DC-discharge-R6-WP	2021-07-02	17.3	7.7	354	5.5	5.5	5.5
DC-discharge-R6-WP	2021-07-03	12	7.8	368	7.1	7.1	7.1
DC-discharge-R6-WP	2021-07-04	16.5	8	366	4.4	4.4	4.4
DC-discharge-R6-WP	2021-07-05	14	7.8	365	9.2	9.3	9.2
DC-discharge-R6-WP	2021-07-06	18.6	7.8	431	6.3	6.3	6.3
DC-discharge-R6-WP	2021-07-07	21.3	7.9	436	3.6	3.6	3.6
DC-discharge-R6-WP	2021-07-08	23	8.2	493	5	5	5
DC-discharge-R6-WP	2021-07-09	18.4	8.3	421	4.1	4.1	4.1
DC-discharge-R6-WP	2021-07-10	14.5	8.3	477	6.2	6.2	6.2

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
DC-discharge-R6-WP	2021-07-11	20.8	8.4	496	6.3	6.3	6.3
DC-discharge-R6-WP	2021-07-12	11.5	8.5	505	5.3	5.2	5.3
DC-discharge-R6-WP	2021-07-13	21.6	8.4	547	3.4	3.4	3.4
DC-discharge-R6-WP	2021-07-14	18.9	8.5	559	4.9	5.1	4.9
DC-discharge-R6-WP	2021-07-15	16.8	8.3	438	3.4	3.4	3.4
DC-discharge-R6-WP	2021-07-16	10.9	8.4	464	17.7	18.2	17.7
DC-discharge-R6-WP	2021-07-17	12.5	8.3	464	4.8	4.8	4.8
DC-discharge-R6-WP	2021-07-18	11.8	8.4	470	2.7	2.7	2.7
DC-discharge-R6-WP	2021-07-19	16.4	8.4	468	2.9	2.8	2.9
DC-discharge-R6-WP	2021-07-20	14.2	8.3	451	122	121	122
DC-discharge-R6-WP	2021-07-21	14.3	8	524	56	55	56
DC-discharge-R6-WP	2021-07-22	12.1	8.3	511	11.5	11.3	11.5
DC-discharge-R6-WP	2021-07-23	15.4	8.3	521	7.1	7	7.1
DC-discharge-R6-WP	2021-07-24	15.6	8.4	540	57.1	57.7	57.1
DC-discharge-R6-WP	2021-07-25	17.5	8.2	557	14.9	14.8	14.9
DC-discharge-R6-WP	2021-07-26	14.1	8.2	557	7.5	7.5	7.5
DC-discharge-R6-WP	2021-07-27	16.7	8.3	468	29.9	29.9	29.9
DC-discharge-R6-WP	2021-07-28	19.4	8.2	553	64.3	64.3	64.3
DC-discharge-R6-WP	2021-07-29	18.2	8.3	568	5.9	5.9	5.9
DC-discharge-R6-WP	2021-07-30	20.2	8.2	587	4.8	4.8	4.8
DC-discharge-R6-WP	2021-07-31	19.5	8.2	608	5.1	5.1	5.1
DC-discharge-R6-WP	2021-08-01	16.6	8.2	600	4.5	4.5	4.5
DC-discharge-R6-WP	2021-08-02	13.9	8.2	612	5	5	5
DC-discharge-R6-WP	2021-08-03	17.8	8.1	695	11	11	11
DC-discharge-R6-WP	2021-08-04	20.6	8.1	725	8.9	8.9	8.9
DC-discharge-R6-WP	2021-08-05	18.4	8.2	777	60	59	60
DC-discharge-R6-WP	2021-08-06	18.6	8.2	715	9.2	9.3	9.2
DC-discharge-R6-WP	2021-08-07	12.9	8.2	765	63.2	64.4	63.2
DC-discharge-R6-WP	2021-08-08	19.3	8.2	757	20.9	20.7	20.9
DC-discharge-R6-WP	2021-08-09	15.4	8	783	21.5	21.3	21.5
DC-discharge-R6-WP	2021-08-10	15.8	8.2	697	7.1	7.1	7.1
DC-discharge-R6-WP	2021-08-11	18.6	8.2	719	16.7	16.7	16.7
DC-discharge-R6-WP	2021-08-12	20.1	8.2	611	20.6	20.5	20.6
DC-discharge-R6-WP	2021-08-13	19.2	8.2	601	25.5	25.4	25.5
DC-discharge-R6-WP	2021-08-14	16.5	8.1	589	13.4	13.3	13.4
DC-discharge-R6-WP	2021-08-15	18.3	8.2	599	120	119	120
DC-discharge-R6-WP	2021-08-16	15.9	8.3	598	3.5	3.5	3.5
DC-discharge-R6-WP	2021-08-17	18.6	8.2	568	783	783	783
DC-discharge-R6-WP	2021-08-18	16.5	8.4	424	3.6	3.6	3.6
DC-discharge-R6-WP	2021-08-19	19.4	8.4	402	6.5	6.5	6.5
DC-discharge-R6-WP	2021-08-20	13.9	8.3	437	9.4	9.4	9.4
DC-discharge-R6-WP	2021-08-21	14.4	8.4	398	36.3	36.3	36.3
DC-discharge-R6-WP	2021-08-22	11.8	8.9	1168.3	OR	OR	OR
DC-discharge-R6-WP	2021-08-23	15.6	8.2	460	20	20	20
DC-discharge-R6-WP	2021-08-24	17.8	8.3	468	31.5	31.5	31.5
DC-discharge-R6-WP	2021-08-25	20.1	8.3	461	44.6	43.8	44.6
DC-discharge-R6-WP	2021-08-26	11.6	8.3	463	40.6	40.8	40.6
DC-discharge-R6-WP	2021-08-27	12.9	8.5	479	13	16	13
DC-discharge-R6-WP	2021-08-28	13.7	8.2	453	11.6	11.1	11.6
DC-discharge-R6-WP	2021-08-29	12.5	8.3	463	7.5	7.3	7.5
DC-discharge-R6-WP	2021-08-30	10.4	8.3	459	4.6	4.5	4.6
DC-discharge-R6-WP	2021-08-31	14.6	8.2	457	28.7	28.3	28.7
DC-discharge-R6-WP	2021-09-01	14.1	8.4	449	3.1	3.1	3.1
DC-discharge-R6-WP	2021-09-02	11.9	8.4	451	3.4	3.2	3.4
DC-discharge-R6-WP	2021-09-03	18.2	8.4	451	20.2	20.4	20.2
DC-discharge-R6-WP	2021-09-04	13.4	8.2	441	7.3	7.2	7.3
DC-discharge-R6-WP	2021-09-05	16.7	8.5	439	4.6	4.6	4.6
DC-discharge-R6-WP	2021-09-06	14.4	8.4	434	16.6	17	16.6
DC-discharge-R6-WP	2021-09-07	16.4	8.4	395	17.9	17.9	17.9
DC-discharge-R6-WP	2021-09-08	12.9	8.5	401	2.5	2.5	2.5
DC-discharge-R6-WP	2021-09-09	18.3	8.3	384	34.2	34.3	34.2
DC-discharge-R6-WP	2021-09-10	11.6	8.4	309	2.4	2.4	2.4
DC-discharge-R6-WP	2021-09-11	15.8	8.5	308	5.3	5.3	5.3
DC-discharge-R6-WP	2021-09-12	16.5	8.3	308	15.8	15.8	15.8
DC-discharge-R6-WP	2021-09-14	14	8.4	373	1487	1493	1487
DC-discharge-R6-WP	2021-09-15	9.4	8.5	377	1033	1030	1033
DC-discharge-R6-WP	2021-09-16	13.2	8.4	367	2712	2703	2712
DC-discharge-R6-WP	2021-09-17	9.2	8.4	398	60	59	60
DC-discharge-R6-WP	2021-09-18	9.9	8.3	334	3109	3129	3109
DC-discharge-R6-WP	2021-09-19	13.3	8.2	332	33	35	33
DC-discharge-R6-WP	2021-09-20	9.4	8.2	340	2701	2697	2701
DC-discharge-R6-WP	2021-09-21	13.3	8.2	342	972	974	972
DC-discharge-R6-WP	2021-09-22	12.9	8.3	334	9	9.1	9
DC-discharge-R6-WP	2021-09-23	13.4	8.1	336	6.4	6.3	6.4
DC-discharge-R6-WP	2021-09-25	11.7	8.1	340	11.8	11.5	11.8
DC-discharge-R6-WP	2021-09-28	11.4	8.1	326	3.1	3.1	3.1
DC-discharge-R6-WP	2021-09-29	9.6	8.2	318	3.4	3.4	3.4
DC-discharge-R6-WP	2021-10-01	11.7	7.9	316	2.5	2.5	2.5
DC-discharge-R6-WP	2021-10-02	11.4	7.9	329	2	2	2
DC-discharge-R6-WP	2021-10-03	10.2	7.9	327	1.8	1.8	1.8
DC-discharge-R6-WP	2021-10-04	7.4	7.8	324	2.3	2.3	2.3
DC-discharge-R6-WP	2021-10-14	8.2	8.1	330	3.2	3.2	3.2
DC-discharge-R6-WP	2021-10-27	11.5	8	455	2.8	2.8	2.8
DC-discharge-R6-WP	2021-10-31	10	8.3	505	3.9	3.9	3.9
DC-discharge-R6-WP	2021-11-05	10	8	505	6	6	6
DOC_S_Sump	2021-02-13	4	7.8	1096	3.9	4.2	3.9
DS_L3	2021-01-02				3		3
DS_L3	2021-01-03				3		3
DS_L3	2021-01-06				3		3
DS_L3	2021-01-06				4		4
DS_L3	2021-01-10				0.5		0.5
DS_L3	2021-01-10				0.5		0.5
DS_L3	2021-01-17				1.4		1.4
DS_L3	2021-01-17				0.6		0.6
DS_L3	2021-01-18				0.8		0.8
DS_L3	2021-01-19				0.8		0.8
DS_L3	2021-01-19				1.1		1.1
DS_L3	2021-01-20				1.1		1.1
DS_L3	2021-01-20				1.2		1.2
DS_L3	2021-01-21				0.9		0.9
DS_L3	2021-01-22				0.9		0.9
DS_L3	2021-01-22				0.7		0.7
Earthfill_Dam_DS_OUT	2021-11-17	7.6	8.2	427	2.7	2.7	2.7
Earthfill_Dam_DS_OUT	2021-11-18	7.9	8.1	429	2.8	2.8	2.8
Earthfill_Dam_DS_OUT	2021-11-19	8.2	8	452	2.7	2.7	2.7
Earthfill_Dam_DS_OUT	2021-11-20	8.7	8.2	448	2.4	2.4	2.4
Earthfill_Dam_DS_OUT	2021-11-21	6.6	8.2	425	2.3	2.3	2.3
Earthfill_Dam_DS_OUT	2021-11-22	8.2	8.1	436	4.4	4.5	4.4
Earthfill_Dam_DS_OUT	2021-11-23	8.4	8	443	2.6	2.6	2.6
Earthfill_Dam_DS_OUT	2021-11-24	7.6	8	445	2.3	2.2	2.3

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
Earthfill_Dam_DS_OUT	2021-11-25	13	7.9	493	2.1	2.1	2.1
Earthfill_Dam_DS_OUT	2021-11-26	8.8	7.9	457	2.2	2.2	2.2
Earthfill_Dam_DS_OUT	2021-11-27	8.8	8.1	429	2.4	2.4	2.4
Earthfill_Dam_DS_OUT	2021-11-28	9.2	8.1	456	3.8	3.9	3.8
Earthfill_Dam_DS_OUT	2021-11-29	8.7	8	476	2.7	2.7	2.7
Earthfill_Dam_DS_OUT	2021-11-30	7.7	8.1	436	3.3	3.3	3.3
Earthfill_Dam_DS_OUT	2021-12-01	8.6	8.3	226	3	3	3
Earthfill_Dam_DS_OUT	2021-12-02	7.8	8	466	2.7	2.7	2.7
Earthfill_Dam_DS_OUT	2021-12-03	7.4	7.9	475	3.7	3.7	3.7
Earthfill_Dam_DS_OUT	2021-12-04	6.6	8.1	404	4.2	4.2	4.2
Earthfill_Dam_DS_OUT	2021-12-05	2.6	8	479	3.2	3.2	3.2
Earthfill_Dam_DS_OUT	2021-12-06	3.1	8	414	3.4	3.4	3.4
Earthfill_Dam_DS_OUT	2021-12-07	9	8.1	509	3	3	3
Earthfill_Dam_DS_OUT	2021-12-08	8	8.2	309	2.7	2.8	2.7
Earthfill_Dam_DS_OUT	2021-12-09	7.7	8	371	2.7	2.7	2.7
Earthfill_Dam_DS_OUT	2021-12-10	7.5	7.9	396	4.5	4.4	4.5
Earthfill_Dam_DS_OUT	2021-12-11	9.1	8.1	507	3.1	3.1	3.1
Earthfill_Dam_DS_OUT	2021-12-12	8	8.1	481	2	2	2
Earthfill_Dam_DS_OUT	2021-12-13	5.8	8.1	451	1.7	1.7	1.7
Earthfill_Dam_DS_OUT	2021-12-14	7.3	8.1	451	2	2	2
Earthfill_Dam_DS_OUT	2021-12-15	7.4	8	477	2.2	2.2	2.2
Earthfill_Dam_DS_OUT	2021-12-16	7.8	8.3	365	2.2	2.1	2.2
Earthfill_Dam_DS_OUT	2021-12-17	6.4	8.2	483	2.3	2.3	2.3
Earthfill_Dam_DS_OUT	2021-12-18	6.3	8	441	1.1	1.1	1.1
Earthfill_Dam_DS_OUT	2021-12-19	8.1	8	512	3.8	3.8	3.8
Earthfill_Dam_DS_OUT	2021-12-20	7.8	8	501	2.8	2.9	2.8
Earthfill_Dam_DS_OUT	2021-12-21	6.5	7.9	479	2.5	2.5	2.5
Earthfill_Dam_DS_OUT	2021-12-23	5.5	8.4	363	1.8	1.8	1.8
Earthfill_Dam_DS_OUT	2021-12-22	5.6	8.2	487	1.8	1.8	1.8
Earthfill_Dam_DS_OUT	2021-12-25	3.9	8.5	1253	1.9	1.9	1.9
Earthfill_Dam_DS_OUT	2021-12-24	1.6	8.4	1260	2.2	2.2	2.2
Earthfill_Dam_DS_OUT	2021-12-27	5.1	8	372	3.6	3.6	3.6
Earthfill_Dam_DS_OUT	2021-12-28	8	8	257	2.7	2.7	2.7
Earthfill_Dam_DS_OUT	2021-12-29	5.2	8.4	407	2.1	2.1	2.1
Earthfill_Dam_DS_OUT	2021-12-30	8	8.4	516	1.4	1.4	1.4
Earthfill_Dam_DS_OUT	2021-12-31	4.1	8.3	362	2	2	2
Earthfill_Dam_E_BT	2021-10-08	8.4	8.1	331	1.8	1.8	1.8
Earthfill_Dam_E_BT	2021-10-10	8	8.2	311	1.3	1.2	1.3
Earthfill_Dam_E_BT	2021-10-13	10.2	8.3	288	1.6	1.6	1.6
Earthfill_Dam_E_BT	2021-10-15	8	8.4	312	1.6	1.7	1.6
Earthfill_Dam_E_BT	2021-10-17	7.7	8	345	5.3	5.2	5.3
Earthfill_Dam_E_BT	2021-10-19	7.9	8	315	2.5	2.5	2.5
Earthfill_Dam_E_BT	2021-10-20	6.9	7.7	314	2.8	2.8	2.8
Earthfill_Dam_E_BT	2021-10-21	8	8	314	2.8	2.8	2.8
Earthfill_Dam_E_BT	2021-10-22	9.8	7.9	408	4	4	4
Earthfill_Dam_E_BT	2021-10-23	9.7	8.1	402	3.4	3.4	3.4
Earthfill_Dam_E_BT	2021-10-24	9.7	8.1	400	3.9	3.9	3.9
Earthfill_Dam_E_BT	2021-10-26	10.3	8.1	426	2.8	2.9	2.8
Earthfill_Dam_E_BT	2021-10-28	10.4	8	464	2.7	2.8	2.7
Earthfill_Dam_E_BT	2021-10-30	7.1	8.2	354	2.9	2.9	2.9
Earthfill_Dam_E_BT	2021-11-01	10.6	8.1	527	3.5	3.4	3.5
Earthfill_Dam_E_BT	2021-11-02	10.2	8	495	3	3	3
Earthfill_Dam_E_BT	2021-11-03	10.7	7.9	530	2.9	2.9	2.9
Earthfill_Dam_E_BT	2021-11-04	10.7	7.9	526	3	2.9	3
Earthfill_Dam_E_BT	2021-11-06	9.2	8.1	431	2.7	2.7	2.7
Earthfill_Dam_E_BT	2021-11-07	9.6	8.2	422	3.5	3.5	3.5
Earthfill_Dam_E_BT	2021-11-08	8.5	8.2	462	2.6	2.6	2.6
Earthfill_Dam_E_BT	2021-11-09	7	8.2	430	3.6	3.6	3.6
Earthfill_Dam_E_BT	2021-11-10	8.2	8.2	403	3.6	3.6	3.6
Earthfill_Dam_E_BT	2021-11-11	7.4	8	418	2.4	2.4	2.4
Earthfill_Dam_E_BT	2021-11-12	8.3	8.1	397	4.1	4.1	4.1
Earthfill_Dam_E_BT	2021-11-13	8.3	8	391	4	4	4
Earthfill_Dam_E_BT	2021-11-14	6.6	8.2	271	3	3	3
Earthfill_Dam_E_BT	2021-11-15	7.1	8.2	433	3.9	3.9	3.9
Earthfill_Dam_E_BT	2021-11-16	7.5	8.2	431	3.2	3.2	3.2
Earthfill_Dam_E_Sump	2021-07-04	17.4	8	288	3.3	3.3	3.3
Earthfill_Dam_E_Sump	2021-07-05	14.9	7.7	288	7.4	7.3	7.4
Earthfill_Dam_E_Sump	2021-07-06	20.4	7.9	347	3.6	3.6	3.6
Earthfill_Dam_E_Sump	2021-07-07	22.3	7.9	415	6	6	6
Earthfill_Dam_E_Sump	2021-07-08	24.6	8.3	394	3.8	3.8	3.8
Earthfill_Dam_E_Sump	2021-07-09	21.6	8.4	484	3.9	3.9	3.9
Earthfill_Dam_E_Sump	2021-07-10	17.4	8.3	498	5	5	5
Earthfill_Dam_E_Sump	2021-07-11	21.1	8.5	375	4.2	4.2	4.2
Earthfill_Dam_E_Sump	2021-07-12	9.1	8.4	394	4.8	4.8	4.8
Earthfill_Dam_E_Sump	2021-07-13	19.7	8.4	320	1.5	1.4	1.5
Earthfill_Dam_E_Sump	2021-07-14	21	8.5	320	1.7	1.6	1.7
Earthfill_Dam_E_Sump	2021-07-15	14.9	8.4	384	3.6	3.4	3.6
Earthfill_Dam_E_Sump	2021-07-16	10.5	8.4	325	3	3.1	3
Earthfill_Dam_E_Sump	2021-07-17	10.8	8.5	324	3.7	3.6	3.7
Earthfill_Dam_E_Sump	2021-07-18	11.2	8.4	334	2.8	2.8	2.8
Earthfill_Dam_E_Sump	2021-07-19	15.5	8.5	361	2.5	2.5	2.5
Earthfill_Dam_E_Sump	2021-07-20	12.1	8.2	374	11.8	11.8	11.8
Earthfill_Dam_E_Sump	2021-07-21	11.1	8.1	465	OR	OR	OR
Earthfill_Dam_E_Sump	2021-07-22	11.2	8.2	503	18.7	19.1	18.7
Earthfill_Dam_E_Sump	2021-07-23	13.3	8.3	511	65.6	65	65.6
Earthfill_Dam_E_Sump	2021-07-24	14.8	8.4	459	20.2	19.8	20.2
Earthfill_Dam_E_Sump	2021-07-25	15.2	8.4	533	25.8	26	25.8
Earthfill_Dam_E_Sump	2021-08-03	18.4	8.2	584	4.1	4.1	4.1
Earthfill_Dam_E_Sump	2021-08-04	19.7	8	600	4.2	4.2	4.2
Earthfill_Dam_E_Sump	2021-08-05	17.4	8	734	78.8	79	78.8
Earthfill_Dam_E_Sump	2021-08-07	11.9	8.2	649	15	15.2	15
Earthfill_Dam_E_Sump	2021-08-08	18.7	8.3	814	71.7	73.5	71.7
Earthfill_Dam_E_Sump	2021-08-25	15.7	8.2	467	6.8	6.9	6.8
Earthfill_Dam_E_Sump	2021-08-27	16.5	8.4	462	6.9	6.7	6.9
Earthfill_Dam_E_Sump	2021-08-29	14.7	8.4	460	8.4	8.4	8.4
Earthfill_Dam_E_Sump	2021-09-01	13.5	8.2	452	2.7	2.7	2.7
Earthfill_Dam_E_Sump	2021-09-05	14.8	8.5	445	4.1	4.1	4.1
Earthfill_Dam_E_Sump	2021-09-15	12.8	8.2	321	20.8	20.2	20.8
Earthfill_Dam_E_Sump	2021-09-22	19.1	8.1	356	77	76	77
Earthfill_Dam_E_Sump	2021-09-23	12.9	8.3	318	3.8	3.8	3.8
Earthfill_Dam_E_Sump	2021-09-24	19.6	8.3	314	2.1	2	2.1
Earthfill_Dam_E_Sump	2021-09-25	21.7	8.2	316	12.4	12.3	12.4
Earthfill_Dam_E_Sump	2021-09-26	11.5	8.3	317	16.3	16	16.3
Earthfill_Dam_E_Sump	2021-09-27	10.5	8.2	316	2.6	2.5	2.6
Earthfill_Dam_E_Sump	2021-09-28	14.9	8.1	309	4.1	4.1	4.1
Earthfill_Dam_E_Sump	2021-10-05	7.3	7.9	328	1.5	1.5	1.5
Earthfill_Dam_E_Sump	2021-10-06	7.6	7.8	326	1.8	1.8	1.8
EarthfillDam-W-Sump	2021-05-11	13.5	8	297	13.8	13.9	13.8
EarthfillDam-W-Sump	2021-05-12	9.7	8	232	1	1	1
EarthfillDam-W-Sump	2021-05-13	9.7	7.9	237	0.6	0.6	0.6

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
EarthfillDam-W-Sump	2021-05-14	11.6	8	474	18.4	18.3	18.4
EarthfillDam-W-Sump	2021-05-15	8.6	8.5	392	96	98	96
EarthfillDam-W-Sump	2021-05-16	10.8	8.1	457	14.2	13.7	14.2
EarthfillDam-W-Sump	2021-05-17	5.1	8.4	254	8.1	8.1	8.1
EarthfillDam-W-Sump	2021-05-18	9.6	8.4	575	1645	1646	1645
EarthfillDam-W-Sump	2021-05-19	9.4	8.2	425	72	72.7	72
EarthfillDam-W-Sump	2021-05-20	14.9	8.1	603	19.8	19.8	19.8
EarthfillDam-W-Sump	2021-05-21	13.2	8.2	617	699	697	699
EarthfillDam-W-Sump	2021-05-22	15.9	8.3	609	659	659	659
EarthfillDam-W-Sump	2021-05-23	12.9	8.2	608	2.1	2.1	2.1
EarthfillDam-W-Sump	2021-05-24	9.6	7.6	240	1.6	1.6	1.6
EarthfillDam-W-Sump	2021-05-25	7.9	7.8	277	6.9	7	6.9
EarthfillDam-W-Sump	2021-05-26	7.6	7.9	233	2.6	2.6	2.6
EarthfillDam-W-Sump	2021-05-28	9.2	7.5	242	5.7	5.7	5.7
EarthfillDam-W-Sump	2021-05-29	10.6	7.7	258	3.2	3.2	3.2
EarthfillDam-W-Sump	2021-05-30	10.2	7.7	269	1.4	1.4	1.4
EarthfillDam-W-Sump	2021-06-01	18.7	8.1	658	23.1	23.2	23.1
EarthfillDam-W-Sump	2021-06-02	7.9	7.6	284	5.2	5.3	5.2
EarthfillDam-W-Sump	2021-06-05	16.1	8.4	703	58.5	58	58.5
EarthfillDam-W-Sump	2021-06-07	10.1	8.4	441	19.6	19.8	19.6
EarthfillDam-W-Sump	2021-06-09	15.2	8.2	657	56	58	56
EarthfillDam-W-Sump	2021-06-11	15.3	8.1	536	30.2	29.6	30.2
EarthfillDam-W-Sump	2021-06-12	14.6	8.3	677	53	53	53
EarthfillDam-W-Sump	2021-06-13	11.7	7.9	547	131	131	131
EarthfillDam-W-Sump	2021-06-15	9.4	7.7	286	5.4	5.3	5.4
EarthfillDam-W-Sump	2021-06-20	13.6	7.6	311	5.4	5.4	5.4
EarthfillDam-W-Sump	2021-06-22	12.7	8.1	490	2.8	2.9	2.8
EarthfillDam-W-Sump	2021-06-23	11.3	7.7	453	3.1	3.1	3.1
EarthfillDam-W-Sump	2021-06-24	19.8	8.3	707	8.8	8.7	8.8
EarthfillDam-W-Sump	2021-06-25	13.3	7.9	381	3.9	4	3.9
EarthfillDam-W-Sump	2021-06-26	13.1	7.9	346	2.7	2.6	2.7
EarthfillDam-W-Sump	2021-06-27	12.3	7.6	419	8.9	8.8	8.9
EarthfillDam-W-Sump	2021-06-28	9.8	7.9	388	2.4	2.4	2.4
EarthfillDam-W-Sump	2021-06-29	14.3	7.5	482	4.1	4	4.1
EarthfillDam-W-Sump	2021-06-30	18.1	8	470	4.3	4.3	4.3
EarthfillDam-W-Sump	2021-07-01	13.9	8	421	5.5	5.5	5.5
EarthfillDam-W-Sump	2021-07-02	14.5	7.9	405	5.8	5.8	5.8
EarthfillDam-W-Sump	2021-07-03	11.3	8	398	5	5.1	5
EarthfillDam-W-Sump	2021-07-04	13.5	7.9	396	3.9	4	3.9
EarthfillDam-W-Sump	2021-07-05	12.3	7.9	367	3.9	3.8	3.9
EarthfillDam-W-Sump	2021-07-06	17	7.7	355	2.4	2.4	2.4
EarthfillDam-W-Sump	2021-07-07	19.2	7.8	348	3.5	3.5	3.5
EarthfillDam-W-Sump	2021-07-08	10.7	8.1	416	4.8	4.8	4.8
EarthfillDam-W-Sump	2021-07-09	13.2	8.2	394	6.7	6.7	6.7
EarthfillDam-W-Sump	2021-07-10	12.8	8.4	396	10	10	10
EarthfillDam-W-Sump	2021-07-11	13.4	8.3	342	2.5	2.5	2.5
EarthfillDam-W-Sump	2021-07-12	7.2	8.4	444	5.3	5.3	5.3
EarthfillDam-W-Sump	2021-07-13	14.9	8.4	439	2.3	2.5	2.3
EarthfillDam-W-Sump	2021-07-14	12.1	8.3	327	0.8	0.7	0.8
EarthfillDam-W-Sump	2021-07-15	16	8.3	417	6.7	6.7	6.7
EarthfillDam-W-Sump	2021-07-16	8.4	8.5	435	2.5	2.5	2.5
EarthfillDam-W-Sump	2021-07-17	7.9	8.4	326	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-07-18	8.3	8.4	323	0.7	0.8	0.7
EarthfillDam-W-Sump	2021-07-19	10.3	8.3	320	0.7	0.8	0.7
EarthfillDam-W-Sump	2021-07-20	8.2	8.2	329	1.9	1.9	1.9
EarthfillDam-W-Sump	2021-07-21	10	8.7	513	OR	OR	OR
EarthfillDam-W-Sump	2021-07-22	7.9	8.4	381	1.5	1.6	1.5
EarthfillDam-W-Sump	2021-07-24	12.2	8.7	572	29.1	29	29.1
EarthfillDam-W-Sump	2021-07-25	9.8	8.5	408	4	4.1	4
EarthfillDam-W-Sump	2021-07-27	11.2	8.2	353	1.1	1.1	1.1
EarthfillDam-W-Sump	2021-07-28	12.8	8.1	358	2.2	2.2	2.2
EarthfillDam-W-Sump	2021-07-29	9.2	8.4	332	3.2	3.2	3.2
EarthfillDam-W-Sump	2021-07-30	12.3	8.3	357	1.8	1.8	1.8
EarthfillDam-W-Sump	2021-07-31	13.8	8.2	363	1.9	1.9	1.9
EarthfillDam-W-Sump	2021-08-01	12.1	8.3	367	2.2	2.2	2.2
EarthfillDam-W-Sump	2021-08-02	8.1	8.2	312	2	2	2
EarthfillDam-W-Sump	2021-08-03	11.6	8.2	343	1.7	1.7	1.7
EarthfillDam-W-Sump	2021-08-04	11.5	8.1	309	2.2	2.2	2.2
EarthfillDam-W-Sump	2021-08-05	11.6	8.2	350	2	2	2
EarthfillDam-W-Sump	2021-08-06	10.2	8.3	337	2.6	2.5	2.6
EarthfillDam-W-Sump	2021-08-07	9.3	8.4	330	1.6	1.5	1.6
EarthfillDam-W-Sump	2021-08-08	10.5	8.3	318	1	1	1
EarthfillDam-W-Sump	2021-08-09	8.6	8.5	340	0.8	0.8	0.8
EarthfillDam-W-Sump	2021-08-10	9.1	8.3	382	2.1	2.1	2.1
EarthfillDam-W-Sump	2021-08-11	11.1	8.2	404	1.8	1.8	1.8
EarthfillDam-W-Sump	2021-08-12	12.4	8.1	350	1	1	1
EarthfillDam-W-Sump	2021-08-13	12.3	8.1	357	1.6	1.6	1.6
EarthfillDam-W-Sump	2021-08-14	12.9	8.1	363	1.5	1.5	1.5
EarthfillDam-W-Sump	2021-08-15	11.9	8.1	345	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-08-16	10	8.3	353	1.3	1.3	1.3
EarthfillDam-W-Sump	2021-08-17	10.2	8.2	357	2	2	2
EarthfillDam-W-Sump	2021-08-18	10	8.3	365	1	1	1
EarthfillDam-W-Sump	2021-08-19	9.8	8.3	360	1.1	1.1	1.1
EarthfillDam-W-Sump	2021-08-20	11.1	8.4	373	1.6	1.6	1.6
EarthfillDam-W-Sump	2021-08-21	9.3	8.4	368	1.3	1.3	1.3
EarthfillDam-W-Sump	2021-08-22	8.1	8.1	362	5.4	5.4	5.4
EarthfillDam-W-Sump	2021-08-23	9	8.3	361	2.1	2.1	2.1
EarthfillDam-W-Sump	2021-08-24	9.9	8.3	299	2.6	2.6	2.6
EarthfillDam-W-Sump	2021-08-25	11.1	8.1	376	2.8	2.8	2.8
EarthfillDam-W-Sump	2021-08-26	11.2	8.4	317	2.6	2.6	2.6
EarthfillDam-W-Sump	2021-08-27	9	8.3	304	3.4	3.4	3.4
EarthfillDam-W-Sump	2021-08-28	9.6	8.3	316	2.5	2.5	2.5
EarthfillDam-W-Sump	2021-08-29	10.2	8.4	328	2.9	2.9	2.9
EarthfillDam-W-Sump	2021-08-30	9.5	8.3	329	0.7	0.7	0.7
EarthfillDam-W-Sump	2021-08-31	8.6	8.3	324	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-09-01	10.4	8.2	395	1	1	1
EarthfillDam-W-Sump	2021-09-02	11.8	8	388	0.8	0.7	0.8
EarthfillDam-W-Sump	2021-09-03	12.1	8	396	0.7	0.7	0.7
EarthfillDam-W-Sump	2021-09-04	10.8	8.1	402	0.8	0.9	0.8
EarthfillDam-W-Sump	2021-09-05	11.9	8.4	410	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-09-06	10.8	8.3	408	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-09-07	11.7	8.1	411	1.1	1.1	1.1
EarthfillDam-W-Sump	2021-09-08	10.6	8.1	421	1.8	1.8	1.8
EarthfillDam-W-Sump	2021-09-09	9.9	8.3	417	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-09-10	8.3	8.2	418	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-09-11	10.8	8.2	434	1.3	1.3	1.3
EarthfillDam-W-Sump	2021-09-12	11.6	8.1	423	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-09-13	6.8	8	422	1.4	1.4	1.4
EarthfillDam-W-Sump	2021-09-16	9.3	8.1	354	3.2	3.2	3.2
EarthfillDam-W-Sump	2021-09-17	8.7	8.4	364	2	2	2

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
EarthfillDam-W-Sump	2021-09-18	9.4	8.2	367	3	3	3
EarthfillDam-W-Sump	2021-09-19	10.9	8.2	411	4	3.9	4
EarthfillDam-W-Sump	2021-09-20	14	8.2	305	2.9	2.9	2.9
EarthfillDam-W-Sump	2021-09-21	12.1	8.3	418	2	1.9	2
EarthfillDam-W-Sump	2021-09-22	11.9	8.2	412	1.7	1.6	1.7
EarthfillDam-W-Sump	2021-09-23	10.8	8.5	433	1	1	1
EarthfillDam-W-Sump	2021-09-24	10.8	8.4	426	1.9	1.8	1.9
EarthfillDam-W-Sump	2021-09-25	11.9	8.5	458	2.1	2.1	2.1
EarthfillDam-W-Sump	2021-09-26	10.2	8.2	447	1.4	1.4	1.4
EarthfillDam-W-Sump	2021-09-27	9	8	445	1.5	1.4	1.5
EarthfillDam-W-Sump	2021-09-28	10	8.2	444	1.9	1.9	1.9
EarthfillDam-W-Sump	2021-09-29	10.6	8.2	445	3.2	3.2	3.2
EarthfillDam-W-Sump	2021-09-30	10.1	7.9	464	4.8	4.9	4.8
EarthfillDam-W-Sump	2021-10-01	10.5	7.9	457	2	2	2
EarthfillDam-W-Sump	2021-10-02	11	7.9	464	1.3	1.3	1.3
EarthfillDam-W-Sump	2021-10-03	9.4	7.9	462	2	2	2
EarthfillDam-W-Sump	2021-10-04	7.5	7.7	462	1.6	1.6	1.6
EarthfillDam-W-Sump	2021-10-05	9	8.2	469	1.4	1.4	1.4
EarthfillDam-W-Sump	2021-10-06	10.4	7.8	460	2	2	2
EarthfillDam-W-Sump	2021-10-07	9.8	8.2	470	1.5	1.5	1.5
EarthfillDam-W-Sump	2021-10-08	9.9	8	471	1.3	1.3	1.3
EarthfillDam-W-Sump	2021-10-09	10.4	8.4	452	2.6	2.7	2.6
EarthfillDam-W-Sump	2021-10-10	9.8	8	400	1.2	1.2	1.2
EarthfillDam-W-Sump	2021-10-11	9.1	8	452	1.6	1.7	1.6
EarthfillDam-W-Sump	2021-10-12	9.8	8.3	461	1.8	1.8	1.8
EarthfillDam-W-Sump	2021-10-13	10	7.9	458	2.3	2.2	2.3
EarthfillDam-W-Sump	2021-10-14	10.8	8.3	483	1.3	1.3	1.3
EarthfillDam-W-Sump	2021-10-15	9.5	8.1	449	1.5	1.5	1.5
EarthfillDam-W-Sump	2021-10-16	8.9	8.1	451	1.8	1.7	1.8
EarthfillDam-W-Sump	2021-10-17	8.4	8	468	2	1.9	2
EarthfillDam-W-Sump	2021-10-19	8.5	8.2	481	2.6	2.6	2.6
EarthfillDam-W-Sump	2021-10-20	8.1	8.4	472	2.3	2.3	2.3
EarthfillDam-W-Sump	2021-10-21	9.3	8.7	458	1.9	1.9	1.9
EarthfillDam-W-Sump	2021-10-22	9.1	8	436	3	3	3
EarthfillDam-W-Sump	2021-10-23	8	8.2	434	2.8	2.8	2.8
EarthfillDam-W-Sump	2021-10-24	9.7	8	409	2.8	2.8	2.8
EarthfillDam-W-Sump	2021-10-25	8.3	8.2	447	2.2	2.2	2.2
Farmer's-Pond-EOP	2021-05-18	11.8	8.1	397	12.8	12.9	12.8
L3-DC-DS	2021-03-19	3	8.4	539	1999	2005	1999
L3-DC-DS	2021-03-28	1	8	635	27.6	27.4	27.6
L3-DC-DS	2021-03-31	1.6	7.7	432	519	524	519
L3-DC-DS	2021-04-01	1.9	8.2	350	76.6	76.8	76.6
L3-DC-DS	2021-04-03	1.3	7.6	270	20.1	20	20.1
L3-DC-DS	2021-04-04	1.3	8.3	333	20.5	20.4	20.5
L3-DC-DS	2021-04-05	1.2	8	263	19.3	19.4	19.3
L3-DC-DS	2021-04-09	4.4	8.1	304	17.3	17.5	17.3
L3-DC-DS	2021-04-14	9.6	8	329	24.1	23.9	24.1
L3-DC-DS	2021-05-05	10.3	7.5	816	5.2	5.3	5.2
L3-DC-DS	2021-05-06	10.3	7.8	859	7.1	7.1	7.1
L3-DC-DS	2021-05-25	8.8	8.2	1055	25.7	25.5	25.7
L3-DC-DS	2021-05-27	12	8	1129	2.8	2.8	2.8
L3-DC-DS	2021-06-17	15.9	8.1	1224	3.2	3.2	3.2
L3-DC-DS	2021-08-22	13	8.2	867	76.8	76.9	76.8
L3-DC-East-Sump	2021-04-04	1.9	8.4	528	98.5	99.1	98.5
L3-DC-East-Sump	2021-04-05	3.3	8.2	615	191	191	191
L3-DC-US	2021-03-19	5.2	8.3	551	2017	2018	2017
L3-DC-US	2021-03-28	1.7	7.9	628	29.6	29.7	29.6
L3-DC-US	2021-03-31	2.6	8.2	422	654	659	654
L3-DC-US	2021-04-01	2.7	8.2	383	93.7	93.7	93.7
L3-DC-US	2021-04-03	1.3	8.4	296	20.9	21	20.9
L3-DC-US	2021-04-04	1.1	8.2	312	21.2	21.5	21.2
L3-DC-US	2021-04-05	1.2	8.1	263	24.1	24.1	24.1
L3-DC-US	2021-04-09	5.5	8	303	16.8	16.9	16.8
L3-DC-US	2021-04-14	8.6	8	333	29	28.9	29
L3-DC-US	2021-05-05	10.6	7.4	800	7.3	7.3	7.3
L3-DC-US	2021-05-06	9.1	7.7	865	3.7	3.5	3.7
L3-DC-US	2021-05-25	8.3	8	1099	6.3	6.3	6.3
L3-DC-US	2021-05-27	13.2	8	927	5.6	5.6	5.6
L3-DC-US	2021-06-17	13.8	8.4	1735	7.3	7.3	7.3
L3-DC-US	2021-08-22	12.8	8.2	880	76.5	76.4	76.5
L3-DC-West-EOP	2021-04-05	2.9	7.9	617	87.2	87	87.2
L3-DC-West-EOP	2021-04-01	1.6	8.4	565	106	105	106
L3-DC-West-EOP	2021-03-31	2.5	8	488	2999	3011	2999
L3-DC-West-EOP	2021-05-02	8.8	8.4	993	105	106	105
L3-DC-West-EOP	2021-05-04	17.3	7.1	1013	54.3	54.5	54.3
L3-DC-West-EOP	2021-05-05	18.7	7.5	887	48.2	48.4	48.2
L3-DC-West-EOP	2021-05-06	15.2	7.6	952	15	14.8	15
L3-DC-West-EOP	2021-05-09	14.3	7.9	769	4.5	4.5	4.5
L3-DC-West-EOP	2021-05-18	9.8	8	936	78.8	80.7	78.8
L3-DC-West-EOP	2021-05-21	12.6	7.8	1018	8.1	8.2	8.1
L3-DC-West-EOP	2021-05-25	10.7	7.9	945	32.1	32.1	32.1
L3-DC-West-EOP	2021-05-27	10.4	7.8	1184	1.7	1.6	1.7
L3-DC-West-EOP	2021-06-07	18.8	8	1432	12.7	12.2	12.7
L3-DC-West-EOP	2021-06-17	15.2	7.9	1096	16.2	16.2	16.2
L3-DC-West-EOP	2021-07-21	13.8	8.2	804	182	187	182
L3-DC-West-EOP	2021-07-22	15.4	8.1	897	27.2	27.3	27.2
L3-DC-West-EOP	2021-08-06	21.2	7.7	1127	16.8	16.9	16.8
L3-DC-West-EOP	2021-08-07	16.8	8.3	1152	8.8	8.8	8.8
L3-DC-West-EOP	2021-08-22	13.2	8	839	85.8	85.8	85.8
L3-DC-West-EOP	2021-11-06	2.6	8	1306	13	13.1	13
L3-DC-West-Sump	2021-03-19	4.6	8.2	643	88	90	88
L3-DC-West-Sump	2021-05-15	13.7	7.8	1282	3.3	3.2	3.3
L3-DC-West-Sump	2021-06-15	18.3	8	1350	4.2	4.2	4.2
L3-DC-West-Sump	2021-07-20	18.2	7.9	1591	15.2	15.2	15.2
LBCD-Sump-BT	2021-01-02	2.4	7.7	1375	37.7	37.3	37.7
LBCD-Sump-BT	2021-01-05	1.7	8	1381	994	988	994
LBCD-Sump-BT	2021-01-07	2.6	9.6	3520	39	37	39
LBCD-Sump-BT	2021-01-09	6.4	10	1960	79.4	80.4	79.4
LBCD-Sump-BT	2021-01-11	5.1	8.7	2650	968	969	968
LBCD-Sump-BT	2021-01-12	6.5	7.9	1190	6	5.7	6
LBCD-Sump-BT	2021-01-17	7.3	7.8	1437	37.7	37.7	37.7
LBCD-Sump-BT	2021-01-28	3.3	8.1	1260	41.9	41.8	41.9
LBCD-Sump-BT	2021-01-30	2.7	7.8	890	12	12.1	12
LBCD-Sump-BT	2021-01-31	4.7	7.9	1291	22.4	22.3	22.4
LBCD-Sump-BT	2021-02-02	2.6	8	1235	25.6	25.6	25.6
LBCD-Sump-BT	2021-02-05	3.5	8.2	1287	8.5	8.6	8.5
LBCD-Sump-BT	2021-02-07	1.5	8.1	1213	14.1	14	14.1
LBCD-Sump-BT	2021-02-16	3.4	8.4	1280	6.9	6.8	6.9
LBCD-Sump-BT	2021-02-18	7.3	8.4	3760	65.7	65.5	65.7
LBCD-Sump-BT	2021-02-21	5.3	8.3	840	114	114	114

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
LBCD-Sump-BT	2021-02-22	6.2	9	2820	105	105	105
LBCD-Sump-BT	2021-02-23	5.6	9.3	2450	95.6	96	95.6
LBCD-Sump-BT	2021-02-26	2.4	8.4	1166	4	4.1	4
LBCD-Sump-BT	2021-02-28	4	8.3	1247	11.8	11.7	11.8
LBCD-Sump-BT	2021-03-09	7.2	8.2	1107	75.3	77.7	75.3
LBCD-Sump-BT	2021-03-11	3	8.7	2900	OR	OR	OR
LBCD-Sump-BT	2021-03-13	4.3	7.9	1714	46.9	46.9	46.9
LBCD-Sump-BT	2021-03-16	8	8.6	1898	1155	1153	1155
LBCD-Sump-BT	2021-03-20	4.8	9.5	2460	83	81	83
LBCD-Sump-BT	2021-03-26	19.6	8.6	2160	161	161	161
LBCD-Sump-BT	2021-03-28	14.2	8.9	1592	99	99	99
LBCD-Sump-BT	2021-03-30	15.2	9	6550	99	99	99
LBCD-Sump-BT	2021-03-31	7.3	8.8	1410	2873	2894	2873
LBCD-Sump-BT	2021-04-30	14.2	8.8	6750	57.2	56.9	57.2
LBCD-Sump-BT	2021-05-02	11.7	8.9	2730	122	122	122
LBCD-Sump-BT	2021-05-07	15.2	8.8	2250	660	652	660
LBCD-Sump-BT	2021-05-11	17.8	8.3	1665	20.3	20.2	20.3
LBCD-Sump-BT	2021-05-17	16.6	8	1126	17.8	17.7	17.8
LBCD-Sump-BT	2021-05-19	19.6	8.1	1132	6	6.1	6
LBCD-Sump-BT	2021-05-21	22	8.1	1271	18.3	18.5	18.3
LBCD-Sump-BT	2021-06-01	22.1	8.1	1505	6.8	6.9	6.8
LBCD-Sump-BT	2021-06-05	25	7.9	1069	8.9	8.9	8.9
LBCD-Sump-BT	2021-06-07	21.8	7.9	1673	12.9	13	12.9
LBCD-Sump-BT	2021-06-09	16.3	8	1531	7.2	7.3	7.2
LBCD-Sump-BT	2021-06-11	14.9	8	1489	5.5	5.5	5.5
LBCD-Sump-BT	2021-06-12	18	8	1102	8.5	8.5	8.5
LBCD-Sump-BT	2021-06-13	14.6	8	1183	5.7	5.7	5.7
LBCD-Sump-BT	2021-06-18	20.8	8	1008	5.6	5.6	5.6
LBCD-Sump-BT	2021-06-22	19.1	7.8	1080	4.5	4.5	4.5
LBCD-Sump-BT	2021-06-24	18.3	8.1	1070	4.4	4.4	4.4
LBCD-Sump-BT	2021-06-26	23.8	8.1	1072	4.7	4.7	4.7
LBCD-Sump-BT	2021-06-28	27.1	7.8	1087	4.6	4.7	4.6
LBCD-Sump-BT	2021-07-01	22.1	8	1032	9.4	9.4	9.4
LBCD-Sump-BT	2021-07-13	27.3	8.2	1468	9.5	9.5	9.5
LBCD-Sump-BT	2021-07-15	23	8.4	1636	24.9	25.2	24.9
LBCD-Sump-BT	2021-07-17	14.7	8.7	1394	64.4	64.7	64.4
LBCD-Sump-BT	2021-07-19	18.7	8.5	1714	19.8	19.8	19.8
LBCD-Sump-BT	2021-07-21	15.7	8.4	1256	50.7	51.1	50.7
LBCD-Sump-BT	2021-07-24	24.6	8.1	1430	30.7	30.7	30.7
LBCD-Sump-BT	2021-08-03	26.3	8.3	1636	21.7	21.7	21.7
LBCD-Sump-BT	2021-08-05	30.2	8	1643	29.2	29.2	29.2
LBCD-Sump-BT	2021-08-07	16.2	8.7	1663	71.9	71.5	71.9
LBCD-Sump-BT	2021-08-10	19.4	8.5	1762	160	160	160
LBCD-Sump-BT	2021-08-24	16.7	8.3	1087	21.6	21.7	21.6
LBCD-Sump-BT	2021-08-26	27.5	8	1119	5.9	5.9	5.9
LBCD-Sump-BT	2021-08-28	21.8	8.1	1105	4.3	4.3	4.3
LBCD-Sump-BT	2021-08-30	11.4	8	1157	5.2	5.1	5.2
LBCD-Sump-BT	2021-08-31	12.8	8.3	1215	32.9	33.1	32.9
LBCD-Sump-BT	2021-09-14	13	8.3	411	66.4	66.6	66.4
LBCD-Sump-BT	2021-09-16	12.9	8.4	391	1135	1136	1135
LBCD-Sump-BT	2021-09-18	11.4	8.2	372	74.7	74.1	74.7
LBCD-Sump-BT	2021-09-20	10.4	8.5	363	18.9	18.3	18.9
LBCD-Sump-BT	2021-09-22	10.3	8.3	358	3.1	3.1	3.1
LBCD-Sump-BT	2021-09-25	9.9	8.3	379	5.6	5.6	5.6
LBCD-Sump-BT	2021-10-05	7.3	7.9	372	1.7	1.7	1.7
LBCD-Sump-BT	2021-10-07	8	7.9	371	3.2	3.1	3.2
LBCD-Sump-BT	2021-10-11	7.9	8.2	290	3.2	3.2	3.2
LBCD-Sump-BT	2021-10-12	10.4	8	361	1.9	2	1.9
LBCD-Sump-BT	2021-10-16	7.6	8.3	393	3.4	3.4	3.4
LBEX_B1	2021-01-07	3.1	7.9	2130	10.7	10.8	10.7
LBEX_B1	2021-02-22	3.8	8.5	635	216	215	216
LBEX_B1	2021-03-19	6.7	8.2	736	38	39	38
LBEX_B1	2021-03-24	3.9	8.2	1492	8.7	9.2	8.7
LBEX_B1	2021-03-28	0.9	8	735	861	861	861
LBEX_B1	2021-03-30	5	7.8	972	62.5	61.8	62.5
LBEX_B1	2021-03-31	3.4	8	655	1027	1026	1027
LBEX_B1	2021-04-04	8.1	7.8	618	1389	1388	1389
LBEX_B1	2021-04-06	5.9	7.8	813	34.6	34.6	34.6
LBEX_B1	2021-04-08	6.4	8	854	27.4	26.9	27.4
LBEX_B1	2021-04-10	4.6	8.1	946	31.9	31.9	31.9
LBEX_B1	2021-05-02	9.5	8	1087	21	21	21
LBEX_B1	2021-05-06	15.3	7.9	1163	8.8	8.9	8.8
LBEX_B1	2021-05-08	10.6	7.7	1102	17.4	17.3	17.4
LBEX_B1	2021-05-11	19.5	8.1	1243	13.7	13.5	13.7
LBEX_B1	2021-05-13	18.8	8.1	1284	3.2	3.1	3.2
LBEX_B1	2021-05-15	12.6	8	1511	6.3	6	6.3
LBEX_B1	2021-05-17	12.3	7.8	1515	6.9	6.9	6.9
LBEX_B1	2021-05-19	17.9	8.2	1252	5.9	5.9	5.9
LBEX_B1	2021-05-21	17.8	8.1	1544	4.2	4.6	4.2
LBEX_B1	2021-05-23	16.8	8	1491	2.1	2	2.1
LBEX_B1	2021-05-27	16.3	7.9	1381	31.8	31.2	31.8
LBEX_B1	2021-06-05	21.2	8.3	1752	1.9	1.8	1.9
LBEX_B1	2021-06-06	18.4	8.3	1761	2.8	3	2.8
LBEX_B1	2021-06-07	19.4	8.2	1652	28.1	27.3	28.1
LBEX_B1	2021-06-09	13.7	7.9	1737	2.5	2.5	2.5
LBEX_B1	2021-06-11	17	8	1739	1.7	1.7	1.7
LBEX_B1	2021-06-13	15.7	8	1617	5.8	5.8	5.8
LBEX_B1	2021-06-16	13	8.2	1317	36	37	36
LBEX_B1	2021-06-18	19.1	8.1	1211	13.8	13.7	13.8
LBEX_B1	2021-06-22	20.3	8.2	1417	4	3.9	4
LBEX_B1	2021-06-23	20.6	8.4	1516	50.1	49.4	50.1
LBEX_B1	2021-06-25	21.9	8.3	1616	3.2	3.1	3.2
LBEX_B1	2021-06-28	25.9	7.9	1759	9.1	9.1	9.1
LBEX_B1	2021-07-01	22.2	8.1	1755	17.1	16.9	17.1
LBEX_B1	2021-07-04	19.7	8	1719	5.3	5.3	5.3
LBEX_B1	2021-07-13	20.4	8.3	1950	7.9	7.9	7.9
LBEX_B1	2021-07-15	21.7	8.4	1910	9.2	9.2	9.2
LBEX_B1	2021-07-17	13.4	8.2	1643	28.1	28.2	28.1
LBEX_B1	2021-07-19	16.7	8.2	1722	5.2	5.2	5.2
LBEX_B1	2021-07-21	14.8	8.3	1006	55	59	55
LBEX_B1	2021-07-24	16.8	8.1	1729	8.1	8.1	8.1
LBEX_B1	2021-08-03	27	8.1	1980	6.1	6	6.1
LBEX_B1	2021-08-05	27.3	8.1	1974	8.5	8.4	8.5
LBEX_B1	2021-08-07	15.9	7.6	1032	54.9	55	54.9
LBEX_B1	2021-08-24	16.1	8	1186	9.6	9.6	9.6
LBEX_B1	2021-08-26	21.8	8	1486	24.4	24.1	24.4
LBEX_B1	2021-08-28	18.7	8.1	1261	23.2	23	23.2
LBEX_B1	2021-08-30	17.9	8.2	1661	7.2	7.1	7.2
LBEX_B1	2021-09-01	13.7	8.2	1704	12.1	11.4	12.1
LBEX_B1	2021-09-03	23.1	8.1	1706	2.6	2.6	2.6

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
LBEX_B1	2021-09-05	16.7	8.4	1744	5.4	5.4	5.4
LBEX_B1	2021-09-17	11.2	8.3	1738	4.1	4.1	4.1
LBEX_B1	2021-09-20	14.5	8.3	1654	5.7	5.7	5.7
LBEX_B1	2021-09-22	14.1	8.5	1736	6.5	6.3	6.5
LBEX_B1	2021-09-25	11.4	8.2	1773	8.2	8.3	8.2
LBEX_B1	2021-10-06	7.4	8.2	1751	8.2	8.2	8.2
LBEX_B1	2021-10-07	5.2	7.7	1809	6.3	6.2	6.3
LBEX_B1	2021-10-09	9.5	8.2	1621	7.2	7.1	7.2
LBEX_B1	2021-10-10	9.2	8.6	1585	4.1	4	4.1
LBEX_B1	2021-10-12	3.6	8.2	1812	4.6	4.6	4.6
LBEX_B1	2021-10-17	5.2	7.8	1892	8.9	8.9	8.9
LBEX_B1	2021-10-23	7.8	8.2	1636	6.4	6.4	6.4
LBEX_B1	2021-10-26	6.6	8.1	1759	2.8	2.9	2.8
LBEX_B1	2021-10-28	3.2	7.7	1969	6	5.9	6
LBEX_B1	2021-10-30	1.7	8	2320	7.3	7.3	7.3
LBEX_B1	2021-11-03	2	7.6	2130	3.8	3.8	3.8
LBEX_B1	2021-11-06	3.2	8	1174	13.3	13.3	13.3
LBEX_B1	2021-11-07	5.4	8.2	1212	18.8	18.8	18.8
LBEX_B1	2021-11-26	2.5	8.3	1317	27.4	27.4	27.4
LBEX_B1	2021-12-10	1.4	7.6	2940	12.4	12.3	12.4
LBEX_PAG_Sump	2021-08-07	16.3	4.8	2360	94.4	95.3	94.4
LBEX_PAG_Sump	2021-08-25	16.1	4.8	3440	5.8	5.8	5.8
LBEX_PAG_Sump	2021-08-26	19.7	5.4	3450	8.6	8.6	8.6
LBEX_PAG_Sump	2021-09-05	16.8	8.3	3210	23.9	23.8	23.9
LBEX_PAG_Sump	2021-09-14	12.8	5	4500	61	60	61
LBEX_PAG_Sump	2021-09-16	18.2	7.8	2580	31	30.9	31
LBEX_PAG_Sump	2021-10-08	9.1	7.8	2590	15.6	15.6	15.6
LBEX-B0	2021-03-26	5	8	2470	OR	OR	OR
LBEX-B0	2021-03-28	0.7	8.3	2700	800	798	800
LBEX-B0	2021-03-31	5.3	8	2020	204	201	204
LBEX-B0	2021-04-02	3.9	7.2	3120	72	74	72
LBEX-B0	2021-04-04	11.1	7.3	2790	18.2	18	18.2
LBEX-B0	2021-04-06	4.6	7.3	2960	24.3	24.4	24.3
LBEX-B0	2021-04-08	8.1	7.2	2640	12.6	12.6	12.6
LBEX-B0	2021-04-28	8.7	7.6	2470	21.2	21	21.2
LBEX-B0	2021-05-01	18.6	8.1	2420	11.6	11.4	11.6
LBEX-B0	2021-05-08	14.6	7.9	2670	109	107	109
LBEX-B0	2021-05-13	21.9	8	2540	4.3	4.2	4.3
LBEX-B0	2021-05-15	14.4	7.7	2430	4	4	4
LBEX-B0	2021-05-17	13	7.8	2380	3	2.9	3
LBEX-B0	2021-05-21	21	8	2370	2.4	2.4	2.4
LBEX-B0	2021-05-23	17.6	7.8	2350	2.4	2.4	2.4
LBEX-B0	2021-06-02	18.9	7.7	2860	4.1	4	4.1
LBEX-B0	2021-06-05	22.5	8.4	2840	5.7	5.4	5.7
LBEX-B0	2021-06-07	21.1	8.2	2890	9.1	9.1	9.1
LBEX-B0	2021-06-09	15.7	7.8	2510	6.6	6.6	6.6
LBEX-B0	2021-06-11	17.2	7.7	2740	3.2	3.2	3.2
LBEX-B0	2021-06-13	14.2	7.6	2800	3.3	3.3	3.3
LBEX-B0	2021-06-20	21.9	8.1	3070	24	24.1	24
LBEX-B0	2021-06-22	19.1	7.6	2450	3.4	3.4	3.4
LBEX-B0	2021-06-25	24.9	8	2470	11.7	11.7	11.7
LBEX-B0	2021-06-28	25.9	7.6	2500	6.3	6.4	6.3
LBEX-B0	2021-07-13	20.3	8	3020	4.4	4.3	4.4
LBEX-B0	2021-07-17	13.5	7.6	3350	9.5	9.4	9.5
LBEX-B0	2021-07-19	17.6	7.8	3000	17.9	17.5	17.9
LBEX-B0	2021-07-21	14.5	6.6	3550	50.5	50.5	50.5
LBEX-B0	2021-08-03	27.7	8.1	3250	8.3	8.3	8.3
LBEX-B0	2021-08-05	28.6	7.9	3120	9.3	9	9.3
LBEX-B0	2021-08-07	16.2	7	3550	32.8	32	32.8
LBEX-B0	2021-08-24	19.3	3.5	4950	165	166	165
LBEX-B0	2021-08-26	20.7	7.5	2080	22	22	22
LBEX-B0	2021-08-30	19.9	7.9	2760	7.6	7.6	7.6
LBEX-B0	2021-09-01	13.4	7.8	2900	5.6	5.5	5.6
LBEX-B0	2021-09-03	22.6	7.7	2720	5.1	5.1	5.1
LBEX-B0	2021-09-05	18.1	8.2	2740	13	12.9	13
LBEX-B0	2021-09-14	11.9	7.8	2620	31.4	29.9	31.4
LBEX-B0	2021-09-16	15.7	8	2570	6.5	6.4	6.5
LBEX-B0	2021-09-20	14.7	8.1	2790	7.2	7.2	7.2
LBEX-B0	2021-09-23	9.9	8.2	2790	5.1	5.1	5.1
LBEX-B0	2021-10-05	4.3	7.9	2890	5	5	5
LBEX-B0	2021-10-07	7.1	7.7	2390	13.1	12.6	13.1
LBEX-B0	2021-10-09	9.7	8.3	2830	4.3	4.3	4.3
LBEX-B0	2021-10-17	5.7	7.8	2660	20	19.8	20
LBEX-B0	2021-10-26	8.2	8.2	2510	5.8	5.8	5.8
LBEX-B0	2021-10-28	2.2	7.1	2780	12.7	12.6	12.7
LBEX-B0	2021-10-30	3.6	7.9	2800	13.4	13.3	13.4
LBEX-B0	2021-11-01	1	7.5	3070	35.7	35.4	35.7
LBEX-B0	2021-11-07	5.5	7.6	2850	23.7	23.4	23.7
LBEX-B0	2021-11-12	3.7	7.1	3050	22.4	22.3	22.4
LBEX-B0	2021-12-09	0.6	7	3620	23.2	22.9	23.2
LBGC-Debris-US	2021-03-19	1.8	7.2	612	41	42	41
LBGC-Debris-US	2021-03-28	2.1	8.3	466	828	824	828
LBGC-Debris-US	2021-04-01	3.1	8	359	3825	3836	3825
LBGC-Debris-US	2021-04-06	1.4	8.4	405	3427	3421	3427
LBGC-Debris-US	2021-04-29	9	8	1202	OR	OR	OR
LBGC-Debris-US	2021-05-02	7.4	8.3	1354	OR	OR	OR
LBGC-Debris-US	2021-05-08	12	8.1	1305	OR	OR	OR
LBGC-Debris-US	2021-05-12	14.9	8.3	1469	OR	OR	OR
LBGC-Debris-US	2021-05-18	6.8	8.3	2340	OR	OR	OR
LBGC-Debris-US	2021-05-27	14.1	8.4	1664	OR	OR	OR
LBGC-Debris-US	2021-06-03	18.3	8.2	1393	OR	OR	OR
LBGC-Debris-US	2021-06-12	15.8	8.3	1421	3482	3486	3482
LBGC-Debris-US	2021-06-18	19.8	8.3	1442	OR	OR	OR
LBGC-Debris-US	2021-06-24	16.8	8.4	1329	2307	2303	2307
LBGC-Debris-US	2021-07-03	16.6	8.6	1388	12.2	12.2	12.2
LBGC-Debris-US	2021-07-10	23	8.6	1393	9.4	9.4	9.4
LBGC-Debris-US	2021-07-17	13.1	8.6	1591	81.2	80.8	81.2
LBGC-Debris-US	2021-07-22	14	8.4	1919	3857	3854	3857
LBGC-Debris-US	2021-08-07	15.7	8.4	1543	OR	OR	OR
LBGC-Debris-US	2021-08-22	12.1	8.2	1023	OR	OR	OR
LBGC-Debris-US	2021-08-26	19.7	8.3	1382	32.7	32.7	32.7
LBGC-Debris-US	2021-09-12	18.8	8.2	1250	2.9	2.9	2.9
LBGC-Debris-US	2021-09-14	12.8	7.9	1739	2199	2183	2199
LBGC-Debris-US	2021-09-17	11.8	8.6	1225	5.1	5	5.1
LBGC-Debris-US	2021-10-24	6.8	8	1225	3.6	3.6	3.6
LBGC-Debris-US	2021-10-28	2	8.7	1389	3.6	3.6	3.6
LBGC-OUT	2021-03-19	3	7.9	832	35.7	35.6	35.7
LBGC-OUT	2021-03-28	1.8	8.4	385	1106	1140	1106
LBGC-OUT	2021-04-01	3.3	8.3	267	95.5	95.1	95.5
LBGC-OUT	2021-04-06	3	8.5	226	42.5	42.6	42.5

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
LBGC-OUT	2021-04-29	9.9	8.2	1258	OR	OR	OR
LBGC-OUT	2021-05-02	9.1	8.3	1427	OR	OR	OR
LBGC-OUT	2021-05-08	12.6	8.1	1300	OR	OR	OR
LBGC-OUT	2021-05-12	12.4	8.2	1525	OR	OR	OR
LBGC-OUT	2021-05-18	8.3	8.4	2280	OR	OR	OR
LBGC-OUT	2021-05-27	13	8.4	1668	OR	OR	OR
LBGC-OUT	2021-06-03	14	8.2	1520	OR	OR	OR
LBGC-OUT	2021-06-12	11.7	8.3	1447	2978	2956	2978
LBGC-OUT	2021-06-18	16.7	8.2	1355	2682	2687	2682
LBGC-OUT	2021-06-24	12.4	8.5	1362	101	101.6	101
LBGC-OUT	2021-07-03	11.9	8.1	233	14.4	14.3	14.4
LBGC-OUT	2021-07-10	17.1	8.4	1420	10.8	10.8	10.8
LBGC-OUT	2021-07-17	12	8.8	1604	31.9	31.8	31.9
LBGC-OUT	2021-07-22	12.4	8.5	2050	1673	1673	1673
LBGC-OUT	2021-08-07	14.3	8.4	1508	2206	2214	2206
LBGC-OUT	2021-08-22	11.8	8.2	1017	OR	OR	OR
LBGC-OUT	2021-08-26	13.1	8.4	1397	8.3	8.4	8.3
LBGC-OUT	2021-09-12	15.6	8.2	1252	2.9	2.9	2.9
LBGC-OUT	2021-09-14	11.6	8	1837	714	712	714
LBGC-OUT	2021-09-17	9.4	8.5	1253	15	15.1	15
LBGC-OUT	2021-10-24	6.6	8	1220	3.5	3.5	3.5
LBGC-OUT	2021-10-28	7.4	8.2	1389	3.6	3.6	3.6
LBPR-6.90	2021-01-02				3		3
LBPR-6.90	2021-01-06				3		3
LBPR-6.90	2021-01-06				4		4
LBPR-6.90	2021-01-10				2		2
LBPR-6.90	2021-01-10				1		1
LBPR-6.90	2021-01-17				1.8		1.8
LBPR-6.90	2021-01-17				1.9		1.9
LBPR-6.90	2021-01-18				1.4		1.4
LBPR-6.90	2021-01-19				1.4		1.4
LBPR-6.90	2021-01-19				1.5		1.5
LBPR-6.90	2021-01-19				1.4		1.4
LBPR-6.90	2021-01-19				1.5		1.5
LBPR-6.90	2021-01-20				1.8		1.8
LBPR-6.90	2021-01-20				1.7		1.7
LBPR-6.90	2021-01-21				1.4		1.4
LBPR-6.90	2021-01-22				1.1		1.1
LBPR-6.90	2021-01-22				0.9		0.9
MWTF-SLP-R6	2021-01-01	0.1	6.6	1248	6.4	6.4	6.4
MWTF-SLP-R6	2021-01-05	1.1	7.7	1316	6.1	6.1	6.1
MWTF-SLP-R6	2021-01-07	1.6	7.8	1322	5	5	5
MWTF-SLP-R6	2021-01-08	1.8	7.6	1454	5.6	5.6	5.6
MWTF-SLP-R6	2021-01-09	1.7	7.6	1469	5.5	5.5	5.5
MWTF-SLP-R6	2021-01-11	1.9	7.8	1339	7.6	7.6	7.6
MWTF-SLP-R6	2021-01-12	2.9	7.7	1301	4.3	4.4	4.3
MWTF-SLP-R6	2021-01-13	2.1	7.6	1402	10	10	10
MWTF-SLP-R6	2021-01-15	2.4	7.7	1322	9.4	9.5	9.4
MWTF-SLP-R6	2021-01-16	2.8	7.7	1320	4.8	4.8	4.8
MWTF-SLP-R6	2021-01-17	2.2	7.8	1382	6.2	6.2	6.2
MWTF-SLP-R6	2021-01-14	1.7	8	1230	4.3	4.3	4.3
MWTF-SLP-R6	2021-02-05	1.3	7.9	1492	5.1	5.1	5.1
MWTF-SLP-R6	2021-02-07	0.6	8.8	1371	8.8	8.8	8.8
MWTF-SLP-R6	2021-02-14	4.1	7	1127	8.6	8.6	8.6
MWTF-SLP-R6	2021-02-16	0.3	7.5	1077	7.7	7.7	7.7
MWTF-SLP-R6	2021-02-17	0.5	7.2	1043	8.5	8.5	8.5
MWTF-SLP-R6	2021-02-06	1	8.1	1464	7.5	7.4	7.5
MWTF-SLP-R6	2021-02-18	0.4	7.5	1185	7.7	7.8	7.7
MWTF-SLP-R6	2021-02-19	2.6	7.3	1070	12.7	12.7	12.7
MWTF-SLP-R6	2021-02-20	2.9	7.4	1086	8.9	8.9	8.9
MWTF-SLP-R6	2021-02-25	1.5	7.7	1383	11.5	11.4	11.5
MWTF-SLP-R6	2021-02-26	0.7	8	1456	8.7	8.7	8.7
MWTF-SLP-R6	2021-02-27	0.6	8.2	1475	8.2	8.2	8.2
MWTF-SLP-R6	2021-02-28	2.4	8.1	1490	7.9	7.8	7.9
MWTF-SLP-R6	2021-03-01	2.1	8.2	1405	8.8	8.8	8.8
MWTF-SLP-R6	2021-03-09	1.6	7.6	1423	17	17	17
MWTF-SLP-R6	2021-03-10	3.7	8.1	1295	13.2	13.3	13.2
MWTF-SLP-R6	2021-03-11	2.1	8.2	1414	13.2	13.1	13.2
MWTF-SLP-R6	2021-03-12	2.2	7.9	1428	13.9	13.8	13.9
MWTF-SLP-R6	2021-03-13	2.5	8.1	1365	15.7	15.7	15.7
MWTF-SLP-R6	2021-03-14	0.5	8.1	1490	14.8	14.8	14.8
MWTF-SLP-R6	2021-03-15	1.7	8.1	1429	13.4	13.4	13.4
MWTF-SLP-R6	2021-03-16	1.5	8.3	1030	16.5	16.6	16.5
MWTF-SLP-R6	2021-03-17	2.6	8.2	1351	21.2	21.2	21.2
MWTF-SLP-R6	2021-03-18	2.3	8.2	1306	19.6	19.6	19.6
MWTF-SLP-R6	2021-03-20	2.6	8.3	1064	7.5	7.5	7.5
MWTF-SLP-R6	2021-03-21	2.4	8	1056	5.8	5.9	5.8
MWTF-SLP-R6	2021-03-27	4.5	8	1094	5.2	5.2	5.2
MWTF-SLP-R6	2021-03-30	3.2	8.2	1289	7	6.8	7
MWTF-SLP-R6	2021-03-31	3.5	8.5	810	14.7	14.4	14.7
MWTF-SLP-R6	2021-04-01	3	8.1	1335	6.7	6.7	6.7
MWTF-SLP-R6	2021-04-02	4.2	8.1	1304	5.2	5	5.2
MWTF-SLP-R6	2021-04-03	5.1	7.9	1249	22.5	22.5	22.5
MWTF-SLP-R6	2021-04-04	5.9	7.9	1223	5.3	6.1	5.3
MWTF-SLP-R6	2021-04-05	5.9	8.1	1216	3.3	3.2	3.3
MWTF-SLP-R6	2021-04-06	6	8.2	1198	4	3.8	4
MWTF-SLP-R6	2021-04-07	6.5	8.1	1204	4.7	4.7	4.7
MWTF-SLP-R6	2021-04-08	5.2	8	1250	8.2	8.4	8.2
MWTF-SLP-R6	2021-04-09	6.8	8	1284	6.7	6.7	6.7
MWTF-SLP-R6	2021-04-10	4.3	8.4	1235	5	4.8	5
MWTF-SLP-R6	2021-04-11	5.4	8.5	1275	7.2	7.2	7.2
MWTF-SLP-R6	2021-04-12	4.7	8.1	1287	5.9	5.7	5.9
MWTF-SLP-R6	2021-04-14	12.1	8.1	1341	11.6	11.6	11.6
MWTF-SLP-R6	2021-04-28	6.2	8	1412	7.8	7.7	7.8
MWTF-SLP-R6	2021-04-29	6.2	7.7	1359	9.1	9	9.1
MWTF-SLP-R6	2021-04-30	8.9	7.8	1316	11.2	11.1	11.2
MWTF-SLP-R6	2021-05-01	10.6	7.8	1340	7.8	7.7	7.8
MWTF-SLP-R6	2021-05-02	11.4	7.8	451	9.5	9.6	9.5
MWTF-SLP-R6	2021-05-03	10.2	8.2	1305	23	23.6	23
MWTF-SLP-R6	2021-05-07	13.2	7.6	1370	4.6	4.8	4.6
MWTF-SLP-R6	2021-05-09	14.9	7.6	1398.2	12	11.9	12
MWTF-SLP-R6	2021-05-11	13	7.4	1308	8.1	7.9	8.1
MWTF-SLP-R6	2021-05-12	13.7	7.6	1342	26.9	27.2	26.9
MWTF-SLP-R6	2021-05-13	14.7	7.6	1315	7.2	7.4	7.2
MWTF-SLP-R6	2021-05-15	15.3	7.8	1350	7.4	7.3	7.4
MWTF-SLP-R6	2021-05-16	15.4	7.6	1099	6.1	6.4	6.1
MWTF-SLP-R6	2021-05-17	14.7	8	1296	4.5	4.7	4.5
MWTF-SLP-R6	2021-05-18	13.2	8	1236	11.5	11.5	11.5
MWTF-SLP-R6	2021-05-19	13.5	7.7	1260	12.5	12.6	12.5
MWTF-SLP-R6	2021-05-20	14	7.5	1297	5.7	6	5.7
MWTF-SLP-R6	2021-05-21	14.3	7.8	1355	6.8	6.9	6.8
MWTF-SLP-R6	2021-05-22	14.7	7.6	1387	5.6	5.2	5.6

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
MWTF-SLP-R6	2021-05-23	18.1	7.8	1410	6.6	6.5	6.6
MWTF-SLP-R6	2021-05-25	12.5	7.3	1421	3.9	3.8	3.9
MWTF-SLP-R6	2021-06-01	17.4	7.3	1861	3.6	3.9	3.6
MWTF-SLP-R6	2021-06-02	19	7.4	1866	8.3	8.3	8.3
MWTF-SLP-R6	2021-06-08	18.4	7.6	1766	2.4	2.3	2.4
MWTF-SLP-R6	2021-06-09	19.7	7.8	1905	1.7	1.7	1.7
MWTF-SLP-R6	2021-06-10	19.4	7.7	1756	2.1	2.1	2.1
MWTF-SLP-R6	2021-06-11	19.5	7.8	1779	1.7	1.7	1.7
MWTF-SLP-R6	2021-06-12	19.9	7.6	1748	3.4	3.4	3.4
MWTF-SLP-R6	2021-06-13	19.5	7.5	1914	4.3	4.2	4.3
MWTF-SLP-R6	2021-06-22	24.4	7.9	1466	3.6	3.6	3.6
MWTF-SLP-R6	2021-06-26	26.5	7.5	1615	7.9	7.9	7.9
MWTF-SLP-R6	2021-06-27	27	7.4	1614	6.2	6.3	6.2
MWTF-SLP-R6	2021-06-29	30.4	7.3	1624	3.2	3.2	3.2
MWTF-SLP-R6	2021-07-01	26.2	7.8	1609	4.4	4.5	4.4
MWTF-SLP-R6	2021-07-02	26.4	7.6	1606	2.6	2.6	2.6
MWTF-SLP-R6	2021-07-03	21.1	7.7	1480	2.1	2.1	2.1
MWTF-SLP-R6	2021-07-04	22.8	7.6	1452	3.5	3.5	3.5
MWTF-SLP-R6	2021-07-13	26.8	8.2	1631	1.8	1.8	1.8
MWTF-SLP-R6	2021-07-14	24.5	8.2	1733	1.8	1.8	1.8
MWTF-SLP-R6	2021-07-15	24.5	8.2	1615	1.9	2	1.9
MWTF-SLP-R6	2021-07-16	20.1	8	1755	2.6	2.5	2.6
MWTF-SLP-R6	2021-07-17	18.4	8.3	1694	3	3.1	3
MWTF-SLP-R6	2021-07-19	20.1	8.2	1677	2.1	2.1	2.1
MWTF-SLP-R6	2021-07-20	18.1	7.9	1666	7.2	7.3	7.2
MWTF-SLP-R6	2021-07-21	20.1	7.8	1647	14.1	14	14.1
MWTF-SLP-R6	2021-07-22	18	7.9	1644	21.7	21.7	21.7
MWTF-SLP-R6	2021-07-23	17.8	7.8	1717	12.1	11.8	12.1
MWTF-SLP-R6	2021-07-24	20.6	7.5	1837	6.7	6.6	6.7
MWTF-SLP-R6	2021-07-25	21	7.4	1897	2.7	2.6	2.7
MWTF-SLP-R6	2021-08-03	23.5	7.5	1405	3.4	3.4	3.4
MWTF-SLP-R6	2021-08-04	24.7	7.5	1467	2.8	2.8	2.8
MWTF-SLP-R6	2021-08-05	23.6	7.5	1367	2.8	2.8	2.8
MWTF-SLP-R6	2021-08-07	19.5	7.9	1364	5.3	5.1	5.3
MWTF-SLP-R6	2021-08-08	20.8	7.8	1403	2.1	2	2.1
MWTF-SLP-R6	2021-08-24	17.4	7.8	1248	6.4	6.4	6.4
MWTF-SLP-R6	2021-08-28	17.1	7.9	1614	3.5	3.5	3.5
MWTF-SLP-R6	2021-08-29	16.9	7.6	1495	3.1	3.1	3.1
MWTF-SLP-R6	2021-08-30	15.3	7.5	1625	1.7	1.7	1.7
MWTF-SLP-R6	2021-09-01	16.1	7.5	1609	1.8	1.8	1.8
MWTF-SLP-R6	2021-09-02	15.8	7.6	1619	2.8	2.8	2.8
MWTF-SLP-R6	2021-09-04	16.7	7.6	1497	2	2	2
MWTF-SLP-R6	2021-09-14	14.3	8.1	1114	4.8	4.8	4.8
MWTF-SLP-R6	2021-09-15	12.6	8.1	1026	6.3	6.3	6.3
MWTF-SLP-R6	2021-09-17	12.5	8	804	7.4	7.5	7.4
MWTF-SLP-R6	2021-09-18	11.8	8.4	743	8.9	9	8.9
MWTF-SLP-R6	2021-09-20	12	7.9	659	8.5	8.5	8.5
MWTF-SLP-R6	2021-09-21	12.7	7.9	642	10.1	10.1	10.1
MWTF-SLP-R6	2021-09-23	12.3	7.9	628	7.4	7.4	7.4
MWTF-SLP-R6	2021-09-25	13.7	7.8	634	20.8	19.8	20.8
MWTF-SLP-R6	2021-09-26	12.8	7.8	646	7.5	7.5	7.5
MWTF-SLP-R6	2021-10-05	7.9	8.1	717	9.4	9.4	9.4
MWTF-SLP-R6	2021-10-06	7.7	7.4	741	16	15.8	16
MWTF-SLP-R6	2021-10-12	7.1	7.6	514	6.6	6.5	6.6
MWTF-SLP-R6	2021-10-13	6.7	7.6	658	6.5	6.5	6.5
MWTF-SLP-R6	2021-10-14	7.2	7.9	535	6.4	6.4	6.4
MWTF-SLP-R6	2021-10-15	7.2	7.6	597	6.2	6.2	6.2
MWTF-SLP-R6	2021-10-17	6.2	8.1	614	5.1	5	5.1
MWTF-SLP-R6	2021-10-26	6.1	7.2	600	9.2	9.2	9.2
MWTF-SLP-R6	2021-10-27	7.5	7.2	638	7.9	7.9	7.9
MWTF-SLP-R6	2021-10-28	5.5	7.2	709	7.5	7.5	7.5
MWTF-SLP-R6	2021-10-29	4.2	7.5	790	9	8.9	9
MWTF-SLP-R6	2021-10-30	4	7	761	7.4	7.4	7.4
MWTF-SLP-R6	2021-10-31	3	7.7	801	8.1	8.1	8.1
MWTF-SLP-R6	2021-11-02	3.4	7	913	8.8	8.8	8.8
MWTF-SLP-R6	2021-11-03	3.6	6.8	834	9	9	9
MWTF-SLP-R6	2021-11-04	3.7	6.9	824	9.1	9.1	9.1
MWTF-SLP-R6	2021-11-05	3.2	7.8	838	13.9	13.8	13.9
MWTF-SLP-R6	2021-11-06	3.8	7.4	817	13.6	13.6	13.6
MWTF-SLP-R6	2021-11-07	4.7	7.1	743	12.3	12.3	12.3
MWTF-SLP-R6	2021-11-16	2.2	7.4	792	13	13.1	13
MWTF-SLP-R6	2021-11-17	2	7.3	797	15.7	15.7	15.7
MWTF-SLP-R6	2021-11-18	3.2	7	729	16.8	16.8	16.8
MWTF-SLP-R6	2021-11-19	1.5	7	788	15.2	15.2	15.2
MWTF-SLP-R6	2021-11-20	0.9	7	727	14.6	14.6	14.6
MWTF-SLP-R6	2021-11-21	1.5	7.3	711	14.3	14.3	14.3
MWTF-SLP-R6	2021-11-22	2.3	7.4	699	14.7	14.7	14.7
MWTF-SLP-R6	2021-11-23	0.8	7.6	696	16.2	16.2	16.2
MWTF-SLP-R6	2021-11-24	1.9	7.4	691	15.4	15.4	15.4
MWTF-SLP-R6	2021-11-25	3.6	7.2	692	14.8	14.8	14.8
MWTF-SLP-R6	2021-11-26	2.2	7.6	695	14	14	14
MWTF-SLP-R6	2021-11-28	1.9	7.1	815	13.6	13.6	13.6
MWTF-SLP-R6	2021-12-07	3.2	6.7	942	9.5	9.5	9.5
MWTF-SLP-R6	2021-12-08	3.6	6.4	965	8.6	8.6	8.6
MWTF-SLP-R6	2021-12-09	1.4	6.8	1046	8	8	8
MWTF-SLP-R6	2021-12-10	2	6.7	976	8	8	8
MWTF-SLP-R6	2021-12-11	1.5	7.4	1052	7.2	7.2	7.2
MWTF-SLP-R6	2021-12-16	0.7	7.1	1017	4.2	4.2	4.2
MWTF-SLP-R6	2021-12-17	0	7.6	952	3.6	3.7	3.6
MWTF-SLP-R6	2021-12-19	2	7.5	801	13.3	13.3	13.3
MWTF-SLP-R6	2021-12-20	1	7.4	817	4	4	4
PR-IDZ	2021-02-02	-0.2	8.5	278	3.1	3	3.1
PR-IDZ	2021-02-02	-0.1	8.5	283	3	3	3
PR-IDZ	2021-02-01	0.1	8.2	281	3.2	3.1	3.2
PR-IDZ	2021-02-01	0.2	8.3	275	3	3	3
PR-IDZ	2021-01-27	-0.3	8.4	242	2.8	2.7	2.8
PR-IDZ	2021-01-27	0.1	8.4	251	2.8	2.8	2.8
PR-IDZ	2021-01-28	-0.1	8.4	256	3.2	3.2	3.2
PR-IDZ	2021-01-30	-0.2	8.5	269	4.1	4.2	4.1
PR-IDZ	2021-01-30	-0.3	8.4	246	3.2	3.2	3.2
PR-IDZ	2021-01-31	0.2	8.3	266	3.9	4	3.9
PR-IDZ	2021-01-31	0.7	8.2	278	4.2	4.2	4.2
PR-IDZ	2021-01-21	3.8	8.3	236	1.6	1.6	1.6
PR-IDZ	2021-01-21	3.7	8.3	245	1.9	1.9	1.9
PR-IDZ	2021-01-22	1.3	8.4	228	3.2	3.2	3.2
PR-IDZ	2021-01-22	1.4	8.4	244	4	4	4
PR-IDZ	2021-01-25	1.1	8.5	225	5.5	5.5	5.5
PR-IDZ	2021-02-04	0.5	8.3	284	3.1	3.1	3.1
PR-IDZ	2021-02-07	2	8.6	430	6.8	6.7	6.8
PR-IDZ	2021-02-07	0.1	8.5	274	5.7	5.8	5.7

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
PR-IDZ	2021-02-08	0.8	8.6	310	6	6	6
PR-IDZ	2021-02-09	1.2	8.6	229	4	4	4
PR-IDZ	2021-02-10	1.1	8.6	232	4.8	4.6	4.8
PR-IDZ	2021-02-10	1.3	8.6	238	4.6	4.6	4.6
PR-IDZ	2021-02-11	3.6	7.8	234	6.4	6.2	6.4
PR-IDZ	2021-02-11	3.5	7.8	233	5.4	5.6	5.4
PR-IDZ	2021-02-14	0.4	8.5	215	2.7	2.7	2.7
PR-IDZ	2021-02-14	1.5	8.2	229	3.2	3.2	3.2
PR-IDZ	2021-02-16	0.3	8.5	265	5.6	5.5	5.6
PR-IDZ	2021-02-17	0.8	8.2	231	3.6	3.6	3.6
PR-IDZ	2021-02-17	0.3	8.2	230	3.6	3.6	3.6
PR-IDZ	2021-02-06	2	8.5	278	4.8	4.8	4.8
PR-IDZ	2021-02-18	1.8	8.5	247	8.1	8	8.1
PR-IDZ	2021-02-19	1.8	8.5	230	5	5	5
PR-IDZ	2021-02-20	1.6	8.3	262	5.2	5.3	5.2
PR-IDZ	2021-02-21	2.5	8.4	266	6.5	6.6	6.5
PR-IDZ	2021-02-21	3.5	8.4	227	12.7	12.8	12.7
PR-IDZ	2021-02-22	2.8	8.3	223	9.2	9.1	9.2
PR-IDZ	2021-02-23	2.2	8.4	244	5.4	5.4	5.4
PR-IDZ	2021-02-23	2	8.4	248	5.5	5.5	5.5
PR-IDZ	2021-02-24	2.6	8.6	226	3.3	3.4	3.3
PR-IDZ	2021-02-24	2.1	8.6	225	3.2	3.2	3.2
PR-IDZ	2021-02-15	1.2	8.3	234	2.5	2.5	2.5
PR-IDZ	2021-02-15	1	8.6	229	4.7	4.6	4.7
PR-IDZ	2021-02-25	2.2	8.4	236	5.4	5.4	5.4
PR-IDZ	2021-02-25	1.8	8.4	225	5.2	5.3	5.2
PR-IDZ	2021-02-26	1.8	8	268	6.5	6.6	6.5
PR-IDZ	2021-02-26	1	8	250	6.4	6.4	6.4
PR-IDZ	2021-02-27	0.3	8.5	255	2.2	2.1	2.2
PR-IDZ	2021-02-27	1.1	8.2	229	3.2	3	3.2
PR-IDZ	2021-02-28	0.8	8.5	226	2.5	2.6	2.5
PR-IDZ	2021-03-02	2.2	8.4	226	4.9	4.8	4.9
PR-IDZ	2021-03-02	2	8.5	231	4.9	4.9	4.9
PR-IDZ	2021-03-03	3	8.6	226	12	11.8	12
PR-IDZ	2021-03-03	7.5	8.4	965	11.1	11.2	11.1
PR-IDZ	2021-03-04	3.9	8.7	224	4.8	4.9	4.8
PR-IDZ	2021-03-04	4	8.6	222	5	5	5
PR-IDZ	2021-03-05	3.8	8.6	226	5.9	5.9	5.9
PR-IDZ	2021-03-05	4	8.6	221	6	6	6
PR-IDZ	2021-03-06	3.8	8.5	226	7.2	6.9	7.2
PR-IDZ	2021-03-06	3.9	8.6	228	7	7.1	7
PR-IDZ	2021-03-07	2.8	8.7	226	5	5	5
PR-IDZ	2021-03-07	2.5	8.6	225	5.2	5.3	5.2
PR-IDZ	2021-03-09	1.4	8.1	248	3.4	3.4	3.4
PR-IDZ	2021-03-09	1.3	8	236	3.5	3.5	3.5
PR-IDZ	2021-03-10	2.7	8.3	228	4.4	4.3	4.4
PR-IDZ	2021-03-10	2.4	8.4	213	4	4	4
PR-IDZ	2021-03-11	1.6	8.4	255	3	3	3
PR-IDZ	2021-03-11	1.7	8.4	258	3	3	3
PR-IDZ	2021-03-12	4	8.2	225	6.2	6.2	6.2
PR-IDZ	2021-03-12	4.1	8.2	234	6.3	6.4	6.3
PR-IDZ	2021-03-13	2	8.2	261	5.6	5.6	5.6
PR-IDZ	2021-03-13	1.8	8.3	245	5.5	5.5	5.5
PR-IDZ	2021-03-14	1.3	8.4	214	4.6	4.5	4.6
PR-IDZ	2021-03-15	2	8.4	247	3	3	3
PR-IDZ	2021-03-15	2.3	8.2	241	3	2.9	3
PR-IDZ	2021-03-16	2	8.4	242	7.1	6.9	7.1
PR-IDZ	2021-03-16	1.9	8.4	240	7.1	7.2	7.1
PR-IDZ	2021-03-08	1.8	8.7	224	7.2	7.2	7.2
PR-IDZ	2021-03-08	2	8.7	225	7.7	7.6	7.7
PR-IDZ	2021-03-17	2.1	8.5	201	5.2	5.3	5.2
PR-IDZ	2021-03-18	1.5	8.4	237	6.5	6.5	6.5
PR-IDZ	2021-03-19	1.7	8.4	232	5.3	5.3	5.3
PR-IDZ	2021-03-20	1.7	8.6	218	3.2	3.1	3.2
PR-IDZ	2021-03-23	3.4	9.6	202	1.8	1.8	1.8
PR-IDZ	2021-03-24	2.7	8.4	192	1.5	1.3	1.5
PR-IDZ	2021-03-25	2.5	8.2	191.6	1.7	1.7	1.7
PR-IDZ	2021-03-26	4.4	8.3	193.2	1.8	1.8	1.8
PR-IDZ	2021-03-27	4.9	8.4	195.1	2.6	2.6	2.6
PR-IDZ	2021-03-28	1.7	8.4	193	7.7	7.7	7.7
PR-IDZ	2021-03-29	3.8	8.2	190.6	3.5	3.5	3.5
PR-IDZ	2021-03-30	4	8.3	192	3.7	3.6	3.7
PR-IDZ	2021-03-31	3.7	8.4	191	3.9	3.9	3.9
PR-IDZ	2021-04-02	3	8.6	210	2.8	2.7	2.8
PR-IDZ	2021-04-03	6.1	8.2	187	3.5	3.6	3.5
PR-IDZ	2021-04-04	3.4	8.5	219	3.3	3.2	3.3
PR-IDZ	2021-04-05	2.4	8.1	207	3.3	3.3	3.3
PR-IDZ	2021-04-06	5.8	8.1	187	2.5	2.5	2.5
PR-IDZ	2021-04-07	3.4	8.1	186	3.4	3.4	3.4
PR-IDZ	2021-04-08	1.6	8.3	205	2.7	2.8	2.7
PR-IDZ	2021-04-09	1.4	8.4	203	2.5	2.5	2.5
PR-IDZ	2021-04-10	1.9	8.3	192	4.8	4.7	4.8
PR-IDZ	2021-04-11	1.8	8.4	185	3.3	3.3	3.3
PR-IDZ	2021-04-12	2.8	8.5	215	3.5	3.1	3.5
PR-IDZ	2021-04-14	9.4	7.9	204	5.8	5.8	5.8
PR-IDZ	2021-04-13	6.8	8.1	191	3.9	4	3.9
PR-IDZ	2021-04-17	7.2	8.1	195	16.7	16.7	16.7
PR-IDZ	2021-04-18	4.9	8.1	186	25.3	25.3	25.3
PR-IDZ	2021-04-18	4.9	8.1	186.9	25.3	25.3	25.3
PR-IDZ	2021-04-19	4.1	8.1	178	25.5	25.5	25.5
PR-IDZ	2021-04-15	8.2	8	196	6.6	6.6	6.6
PR-IDZ	2021-04-16	9.1	8.1	191	14.1	14	14.1
PR-IDZ	2021-04-28	2.1	8.4	213	3.2	3.3	3.2
PR-IDZ	2021-04-26	3	8.2	191.7	17.4	17.4	17.4
PR-IDZ	2021-04-25	5	8.1	192	26.2	26.2	26.2
PR-IDZ	2021-04-24	3	8.2	192	18.6	18.6	18.6
PR-IDZ	2021-04-20	4	8.1	193.1	28.5	28.5	28.5
PR-IDZ	2021-04-21	4	8	196.1	32.1	32.1	32.1
PR-IDZ	2021-04-22	2	8.8	191.9	19.5	19.5	19.5
PR-IDZ	2021-04-30	4.6	8.4	225	3	3.1	3
PR-IDZ	2021-05-01	5.3	8.4	221	2.1	2.5	2.1
PR-IDZ	2021-05-02	4.9	8.1	218	29.6	29.4	29.6
PR-IDZ	2021-05-03	4.3	8.3	213	33.9	33.4	33.9
PR-IDZ	2021-05-04	8.1	7	197.1	39.6	39.4	39.6
PR-IDZ	2021-05-05	10.1	7.6	197.2	60	61	60
PR-IDZ	2021-05-06	8.8	7.7	190	32.6	32.1	32.6
PR-IDZ	2021-05-07	8.7	8	208	38	37.6	38
PR-IDZ	2021-05-08	9.8	7.6	195	58.4	57.9	58.4
PR-IDZ	2021-05-09	8.7	7.7	202	6.3	6.3	6.3
PR-IDZ	2021-05-10	4.3	7.9	227	52.4	52.5	52.4

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
PR-IDZ	2021-05-11	5.4	8	208	37.6	38.4	37.6
PR-IDZ	2021-05-12	8	8.2	215	32.9	32.6	32.9
PR-IDZ	2021-05-13	7.8	8.2	210	32.1	32	32.1
PR-IDZ	2021-05-14	7.7	7.7	214	26.8	27.8	26.8
PR-IDZ	2021-05-15	8.1	7.9	215	25.1	25	25.1
PR-IDZ	2021-05-16	7.5	7.8	220	31.9	32.3	31.9
PR-IDZ	2021-05-17	6.3	8	223	34	34.4	34
PR-IDZ	2021-05-18	6	7.9	227	55.6	55.8	55.6
PR-IDZ	2021-05-19	6.8	8.2	229	56.3	57.3	56.3
PR-IDZ	2021-05-20	6.7	8	226	37.5	37.7	37.5
PR-IDZ	2021-05-21	6.8	8.1	223	31.6	31.5	31.6
PR-IDZ	2021-05-22	7.1	7.9	229	29.8	29.6	29.8
PR-IDZ	2021-05-23	9.7	7.6	225	35.2	35.1	35.2
PR-IDZ	2021-05-24	10.6	7.8	215	30.1	30.2	30.1
PR-IDZ	2021-05-25	6	7.9	260	39.9	39.8	39.9
PR-IDZ	2021-05-26	10.4	7.7	218	31	30	31
PR-IDZ	2021-05-27	9.3	7.8	210	31	32	31
PR-IDZ	2021-05-28	13.9	7.4	227	69	71	69
PR-IDZ	2021-05-29	13.9	7.6	243	48	48	48
PR-IDZ	2021-05-30	14.9	7.9	250	33	32	33
PR-IDZ	2021-05-31	9.5	7.7	231	72.1	72	72.1
PR-IDZ	2021-06-01	11.9	8	263	55.3	56.1	55.3
PR-IDZ	2021-06-02	13.6	8.2	274	67.8	67.7	67.8
PR-IDZ	2021-06-03	12.9	7.9	276	74	74	74
PR-IDZ	2021-06-04	12.8	8	274	75	76	75
PR-IDZ	2021-06-05	11.4	8	281	50	53	50
PR-IDZ	2021-06-06	11.3	8	279	95	96	95
PR-IDZ	2021-06-07	10.8	8	274	57.6	57	57.6
PR-IDZ	2021-06-08	10.3	8	281	56.5	56.5	56.5
PR-IDZ	2021-06-09	11.6	8.2	275	72.5	72.6	72.5
PR-IDZ	2021-06-10	12.5	8	274	65	66	65
PR-IDZ	2021-06-11	12	8.2	279	51.7	51.3	51.7
PR-IDZ	2021-06-12	12.3	8.2	283	54.6	54.3	54.6
PR-IDZ	2021-06-13	13.7	7.9	258	32.5	32.7	32.5
PR-IDZ	2021-06-14	11.9	8	251	33.4	33.3	33.4
PR-IDZ	2021-06-15	12.7	7.8	248	33.8	33.8	33.8
PR-IDZ	2021-06-16	10.2	7.8	223	59.6	59.3	59.6
PR-IDZ	2021-06-17	12.4	8	226	20.9	20.8	20.9
PR-IDZ	2021-06-18	13.3	8	225	25	25	25
PR-IDZ	2021-06-19	13.6	7.6	215	19	19.2	19
PR-IDZ	2021-06-20	15.3	7.8	247	24.3	24.3	24.3
PR-IDZ	2021-06-21	13.6	7.8	242	21.9	21.8	21.9
PR-IDZ	2021-06-22	13	7.8	217	40.2	39.8	40.2
PR-IDZ	2021-06-23	12.8	7.8	221	41.5	41.7	41.5
PR-IDZ	2021-06-24	11.1	8.1	227	12	12.1	12
PR-IDZ	2021-06-25	12.2	8.2	248	10.1	10.1	10.1
PR-IDZ	2021-06-26	12.9	7.6	222	10.2	10.2	10.2
PR-IDZ	2021-06-27	13.4	7.7	228	9.2	9.3	9.2
PR-IDZ	2021-06-28	13.8	7.8	231	9	9.1	9
PR-IDZ	2021-06-29	14.2	7.6	222	10.2	10.2	10.2
PR-IDZ	2021-06-30	13.2	7.9	219	9.4	9.4	9.4
PR-IDZ	2021-07-01	12.7	8	219	14.3	13.6	14.3
PR-IDZ	2021-07-02	11.8	8	222	10.5	10.5	10.5
PR-IDZ	2021-07-03	11	8	226	12.2	12	12.2
PR-IDZ	2021-07-04	12	7.8	218	10.6	10.6	10.6
PR-IDZ	2021-07-05	10.2	7.6	218	8.4	8.5	8.4
PR-IDZ	2021-07-06	16.7	7.7	202	6	6.1	6
PR-IDZ	2021-07-07	19	7.6	210	6.9	6.9	6.9
PR-IDZ	2021-07-08	16.6	7.4	237	6	6	6
PR-IDZ	2021-07-09	10.1	8.3	224	5.1	5.1	5.1
PR-IDZ	2021-07-10	11.4	8.4	223	5	5	5
PR-IDZ	2021-07-11	13.8	8.4	224	5	5	5
PR-IDZ	2021-07-12	11.5	8.6	225	5.2	5.2	5.2
PR-IDZ	2021-07-13	14.3	8.4	227	4	3.9	4
PR-IDZ	2021-07-14	16.9	8.4	223	3.7	3.7	3.7
PR-IDZ	2021-07-15	12.4	8.3	236	3.4	3.3	3.4
PR-IDZ	2021-07-16	9.7	8.5	241	3.5	3.4	3.5
PR-IDZ	2021-07-17	10.1	8.4	238	3.8	3.8	3.8
PR-IDZ	2021-07-18	10.5	8.4	224	4.2	4.2	4.2
PR-IDZ	2021-07-19	10.6	8.6	243	3.9	3.8	3.9
PR-IDZ	2021-07-20	9.2	8.4	244	3.2	3.1	3.2
PR-IDZ	2021-07-21	11.4	8.4	227	7	6.9	7
PR-IDZ	2021-07-22	10.6	8.5	247	8.8	8.9	8.8
PR-IDZ	2021-07-23	10.7	8.4	254	5.5	5.5	5.5
PR-IDZ	2021-07-24	12.1	8.4	245	4.4	4.4	4.4
PR-IDZ	2021-07-25	13.9	8.3	239	5.5	5.4	5.5
PR-IDZ	2021-07-27	19.7	8.4	222	4.6	4.6	4.6
PR-IDZ	2021-07-28	18.2	8.4	216	4	4	4
PR-IDZ	2021-07-29	17.4	8.4	224	4	3.9	4
PR-IDZ	2021-07-30	18.4	8.5	228	3.9	3.9	3.9
PR-IDZ	2021-07-31	18	8.4	218	3.9	3.9	3.9
PR-IDZ	2021-08-01	18.8	8.4	227	3.7	3.7	3.7
PR-IDZ	2021-08-02	13.3	8.4	222	4.5	4.5	4.5
PR-IDZ	2021-08-04	19.2	8.1	238	3.9	3.9	3.9
PR-IDZ	2021-08-05	16.4	8.3	240	4.7	4.7	4.7
PR-IDZ	2021-08-07	11.7	8.6	242	4.2	4.2	4.2
PR-IDZ	2021-08-08	12.6	8.6	250	3.2	3.2	3.2
PR-IDZ	2021-08-09	18.1	8.1	252	4	4	4
PR-IDZ	2021-08-10	16.1	8.4	226	2.2	2.2	2.2
PR-IDZ	2021-08-11	16.4	8.5	243	3.7	3.7	3.7
PR-IDZ	2021-08-12	17.4	8.3	187	3.7	3.7	3.7
PR-IDZ	2021-08-13	20.8	8.3	182	2.7	2.7	2.7
PR-IDZ	2021-08-14	20.1	8.2	182	3.9	3.9	3.9
PR-IDZ	2021-08-15	17.4	8.2	195	3.1	3.1	3.1
PR-IDZ	2021-08-16	16	8.5	195	3.7	3.7	3.7
PR-IDZ	2021-08-17	16.7	8.4	190	3.8	3.8	3.8
PR-IDZ	2021-08-18	20.4	8.5	192	2.9	2.9	2.9
PR-IDZ	2021-08-19	17.6	8.6	193	4.1	4.1	4.1
PR-IDZ	2021-08-20	14.3	8.5	193	4	4	4
PR-IDZ	2021-08-21	16.8	8.6	193	3.4	3.4	3.4
PR-IDZ	2021-08-22	12.7	8.5	188	5.6	5.6	5.6
PR-IDZ	2021-08-23	13.8	8.4	197	14.2	14.2	14.2
PR-IDZ	2021-08-24	12.5	8.4	224	13.8	13.8	13.8
PR-IDZ	2021-08-25	17.5	8.4	212	20	19.8	20
PR-IDZ	2021-08-26	15.1	8.4	229	13	12.7	13
PR-IDZ	2021-08-27	12.1	8.4	212	13.2	13.6	13.2
PR-IDZ	2021-08-28	13.4	8	215	7.6	7.7	7.6
PR-IDZ	2021-08-29	12.3	8.1	218	7	7	7
PR-IDZ	2021-08-30	12.3	8.2	207	5.9	5.9	5.9
PR-IDZ	2021-08-31	12.9	8.3	218	5.2	5.1	5.2

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
PR-IDZ	2021-09-01	14	8.5	204	3.8	3.7	3.8
PR-IDZ	2021-09-02	13	8.4	215	4.7	4.8	4.7
PR-IDZ	2021-09-03	12.8	8.3	209	3.8	3.7	3.8
PR-IDZ	2021-09-04	13.5	8.3	211	3.4	3.4	3.4
PR-IDZ	2021-09-05	14.1	8.7	232	3.9	3.9	3.9
PR-IDZ	2021-09-06	13.7	8.7	222	7.6	7.6	7.6
PR-IDZ	2021-09-07	14.9	8.5	191	3.1	3.1	3.1
PR-IDZ	2021-09-08	14.4	8.3	189	2.8	2.8	2.8
PR-IDZ	2021-09-09	15.4	8.5	191	3.3	3.3	3.3
PR-IDZ	2021-09-10	15.4	8.3	189	2.8	2.8	2.8
PR-IDZ	2021-09-11	15.6	8.4	189	3.5	3.5	3.5
PR-IDZ	2021-09-12	15.2	8.5	194	3	3	3
PR-IDZ	2021-09-13	11.6	8.5	198	6.5	6.5	6.5
PR-IDZ	2021-09-14	10.8	8.5	221	3.6	3.7	3.6
PR-IDZ	2021-09-15	13.9	8.4	183	4.5	4.5	4.5
PR-IDZ	2021-09-16	12.5	8.4	201	4.2	4	4.2
PR-IDZ	2021-09-17	12.8	8.4	200	3.9	3.9	3.9
PR-IDZ	2021-09-18	12	8.3	197	5.7	5.8	5.7
PR-IDZ	2021-09-19	15	8.4	185	4.3	4.3	4.3
PR-IDZ	2021-09-20	15.6	8.5	205	4	4	4
PR-IDZ	2021-09-21	12.7	8.5	199	5.7	5.8	5.7
PR-IDZ	2021-09-22	14.5	8.5	185	3.9	3.8	3.9
PR-IDZ	2021-09-23	10.1	8.5	183	3.6	3.6	3.6
PR-IDZ	2021-09-24	12.8	8.6	197	4	4	4
PR-IDZ	2021-09-25	13.3	8.6	192	4.2	4.2	4.2
PR-IDZ	2021-09-26	12.6	8.3	198	4.4	4.4	4.4
PR-IDZ	2021-09-27	12.2	8.5	197	4	4	4
PR-IDZ	2021-09-28	13.8	8.3	184	4.8	4.8	4.8
PR-IDZ	2021-09-29	13.4	8	187	4.3	4.3	4.3
PR-IDZ	2021-09-30	14.1	8.2	189	4.1	4.1	4.1
PR-IDZ	2021-10-01	12.3	8	182	4.3	4.3	4.3
PR-IDZ	2021-10-02	12	8.1	191	3.8	3.8	3.8
PR-IDZ	2021-10-03	11.6	8.2	198	3.6	3.6	3.6
PR-IDZ	2021-10-04	9.4	8	180	4.3	4.3	4.3
PR-IDZ	2021-10-05	8.5	8.4	198	3.5	3.6	3.5
PR-IDZ	2021-10-06	10.9	7.7	189	4.2	4.2	4.2
PR-IDZ	2021-10-07	10.5	7.7	188	4.2	4.2	4.2
PR-IDZ	2021-10-08	10.8	8.3	196	6.6	6.6	6.6
PR-IDZ	2021-10-09	10.6	8	199	4.6	4.6	4.6
PR-IDZ	2021-10-10	10.7	8.4	180	5.3	5.2	5.3
PR-IDZ	2021-10-11	10.5	8.5	183	4.5	4.5	4.5
PR-IDZ	2021-10-12	10.1	8.7	183	4.6	4.6	4.6
PR-IDZ	2021-10-13	10.9	8.4	174	6.1	6.1	6.1
PR-IDZ	2021-10-14	10	8.4	163	4.7	4.8	4.7
PR-IDZ	2021-10-15	10	8.4	188	4.2	4.2	4.2
PR-IDZ	2021-10-16	9.7	8.5	185	4.3	4.3	4.3
PR-IDZ	2021-10-17	9.8	8.5	206	5.3	5.2	5.3
PR-IDZ	2021-10-18	8.9	8.3	194	5.6	5.4	5.6
PR-IDZ	2021-10-19	9.3	8.3	177	4.9	4.9	4.9
PR-IDZ	2021-10-20	9.6	8.6	179	4.8	4.8	4.8
PR-IDZ	2021-10-21	9.3	8.9	458	4.3	4.3	4.3
PR-IDZ	2021-10-22	9	8.3	170	4.8	4.8	4.8
PR-IDZ	2021-10-23	8.7	8.3	180	4.6	4.6	4.6
PR-IDZ	2021-10-24	7.1	8.3	177	5	5	5
PR-IDZ	2021-10-25	8.6	8.3	173	4.9	4.9	4.9
PR-IDZ	2021-10-26	8.9	8.4	195	4.8	4.8	4.8
PR-IDZ	2021-10-27	9.1	8.3	207	6	5.9	6
PR-IDZ	2021-10-28	8.2	8.6	206	4.2	4.2	4.2
PR-IDZ	2021-10-29	7.9	8.5	213	4.8	4.8	4.8
PR-IDZ	2021-10-30	6.5	8.3	217	4.8	4.8	4.8
PR-IDZ	2021-10-31	6.7	8.5	217	5	5	5
PR-IDZ	2021-11-01	6.6	8.5	219	4.8	4.8	4.8
PR-IDZ	2021-11-02	7.2	8.4	205	4.7	4.6	4.7
PR-IDZ	2021-11-03	7.7	8.5	209	3.7	3.7	3.7
PR-IDZ	2021-11-04	7.9	8.5	207	6.8	6.8	6.8
PR-IDZ	2021-11-05	7.6	8.6	217	7.1	7.1	7.1
PR-IDZ	2021-11-06	8.1	8.6	201	8.6	8.6	8.6
PR-IDZ	2021-11-07	7.3	8.5	231	5.3	5.3	5.3
PR-IDZ	2021-11-08	6.4	8.6	207	4.4	4.4	4.4
PR-IDZ	2021-11-09	6.4	8.5	190	4.5	4.5	4.5
PR-IDZ	2021-11-10	6	8.6	194	6.4	6.4	6.4
PR-IDZ	2021-11-11	6.4	8.4	196	3.6	3.6	3.6
PR-IDZ	2021-11-12	7.1	8.4	190	4.5	4.5	4.5
PR-IDZ	2021-11-13	6.8	8.4	197	4	4	4
PR-IDZ	2021-11-14	6.3	8.3	193	4.5	4.5	4.5
PR-IDZ	2021-11-15	6.1	8.4	191	4.2	4.2	4.2
PR-IDZ	2021-11-16	5.5	8.6	218	4.7	4.7	4.7
PR-IDZ	2021-11-17	5.2	8.5	215	5.4	5.3	5.4
PR-IDZ	2021-11-18	6	8.4	210	6.4	6.4	6.4
PR-IDZ	2021-11-19	4.6	8.5	213	5.5	5.5	5.5
PR-IDZ	2021-11-20	3.1	8.6	219	4.3	4.2	4.3
PR-IDZ	2021-11-21	3.7	8.6	211	4.2	4.1	4.2
PR-IDZ	2021-11-22	4.7	8.7	213	4.1	4	4.1
PR-IDZ	2021-11-23	3	8.4	219	3.6	3.5	3.6
PR-IDZ	2021-11-24	2.9	8.4	219	3.2	3.2	3.2
PR-IDZ	2021-11-25	7.7	8.3	202	3.3	3.4	3.3
PR-IDZ	2021-11-26	8.1	8.3	205	3.4	3.4	3.4
PR-IDZ	2021-11-27	7.1	8.2	220	3.4	3.4	3.4
PR-IDZ	2021-11-28	5.8	8.4	215	5.9	5.8	5.9
PR-IDZ	2021-11-29	5.4	8.3	218	4.6	4.6	4.6
PR-IDZ	2021-11-30	5.1	8.5	181	3.9	3.9	3.9
PR-IDZ	2021-12-01	6.6	8.4	198	3.4	3.4	3.4
PR-IDZ	2021-12-02	5.9	8.2	204	4	4	4
PR-IDZ	2021-12-03	3	8.4	202	4.2	4.2	4.2
PR-IDZ	2021-12-04	0.2	8.4	198	4.1	4.1	4.1
PR-IDZ	2021-12-05	3.1	8.4	213	4.8	4.8	4.8
PR-IDZ	2021-12-06	0.5	8.4	205	5.3	5.3	5.3
PR-IDZ	2021-12-07	6.2	8.1	257	5.1	5	5.1
PR-IDZ	2021-12-08	4.2	8.3	203	5.1	5.1	5.1
PR-IDZ	2021-12-09	3.5	8.3	235	5	5	5
PR-IDZ	2021-12-10	3.2	8.4	223	5.1	5	5.1
PR-IDZ	2021-12-11	3.7	8.5	227	4.7	4.7	4.7
PR-IDZ	2021-12-12	1.1	8.6	228	4.4	4.4	4.4
PR-IDZ	2021-12-13	1.6	8.5	221	4.1	4.1	4.1
PR-IDZ	2021-12-14	2.3	8.6	217	5	5	5
PR-IDZ	2021-12-15	1.2	8.6	211	3.6	3.5	3.6
PR-IDZ	2021-12-16	-0.3	8.8	252	3.9	3.9	3.9
PR-IDZ	2021-12-17	0.8	8.4	233	3.9	3.9	3.9
PR-IDZ	2021-12-18	2.1	8	192	4	4	4
PR-IDZ	2021-12-19	1.7	8.5	230	4.6	4.6	4.6

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
PR-IDZ	2021-12-20	1.6	8.4	222	6	5.9	6
PR-IDZ	2021-12-21	1.9	8.6	206	4.8	4.9	4.8
PR-IDZ	2021-12-23	1.7	8.7	197	7.2	7.2	7.2
PR-IDZ	2021-12-22	1.4	8.6	213	6.2	6.2	6.2
PR-IDZ	2021-12-24	0.6	8.8	190.7	3.6	3.6	3.6
PR-IDZ	2021-12-25	0.3	8.9	193.4	5	5	5
PR-IDZ	2021-12-26	-0.2	8.4	192	4.4	4.4	4.4
PR-IDZ	2021-12-27	1.4	8.6	191.8	4	4	4
PR-IDZ	2021-12-28	1.1	8.3	224	2.8	2.8	2.8
PR-IDZ	2021-12-29	0.4	8.6	222	2.6	2.6	2.6
PR-IDZ	2021-12-30	1.6	8.4	217	2.6	2.5	2.6
PR-IDZ	2021-12-31	2.7	8	230	2.9	2.9	2.9
PR-Isolation-Zone	2021-02-02	0.1	8.3	377	5.9	5.9	5.9
PR-Isolation-Zone	2021-02-02	0.2	8.2	342	5.9	5.9	5.9
PR-Isolation-Zone	2021-02-01	1.4	8	340	5.1	5	5.1
PR-Isolation-Zone	2021-02-01	1.5	8.1	322	4.9	4.9	4.9
PR-Isolation-Zone	2021-01-27	0.8	8.4	339	4.2	4.2	4.2
PR-Isolation-Zone	2021-01-27	0.6	8.5	325	4	3.9	4
PR-Isolation-Zone	2021-01-28	1.1	8	346	4.7	4.6	4.7
PR-Isolation-Zone	2021-01-30	0.5	8.4	269	4.8	4.7	4.8
PR-Isolation-Zone	2021-01-30	1.4	8.3	282	4	4	4
PR-Isolation-Zone	2021-01-31	1.3	8.4	302	7.5	7.6	7.5
PR-Isolation-Zone	2021-01-31	3.5	8.1	321	8.6	8.6	8.6
PR-Isolation-Zone	2021-01-21	3.8	8.2	286	10	10.1	10
PR-Isolation-Zone	2021-01-21	3.6	7.9	284	4.2	4.2	4.2
PR-Isolation-Zone	2021-01-22	2.6	8.2	290	5.9	5.8	5.9
PR-Isolation-Zone	2021-01-22	2.3	8.2	310	6	5.9	6
PR-Isolation-Zone	2021-01-25	3.8	8.2	309	5.7	5.7	5.7
PR-Isolation-Zone	2021-02-04	3.5	8.1	382	4.2	4.2	4.2
PR-Isolation-Zone	2021-02-07	1.2	8.5	418	21.7	21.5	21.7
PR-Isolation-Zone	2021-02-07	0.9	8.6	337	11.1	11.1	11.1
PR-Isolation-Zone	2021-02-08	0.4	8.6	394	17	17.1	17
PR-Isolation-Zone	2021-02-09	3.2	8.3	413	18.8	18.9	18.8
PR-Isolation-Zone	2021-02-09	2.2	8.5	301	11.5	11.5	11.5
PR-Isolation-Zone	2021-02-09	2	8.6	326	8.2	8.2	8.2
PR-Isolation-Zone	2021-02-10	3.5	8.6	256	5	4.7	5
PR-Isolation-Zone	2021-02-10	3.7	8.7	188	5	5	5
PR-Isolation-Zone	2021-02-11	1.3	8.1	502	29.9	30	29.9
PR-Isolation-Zone	2021-02-11		8.2	503	27.8	27.9	27.8
PR-Isolation-Zone	2021-02-12	5	8	492	53.1	53.1	53.1
PR-Isolation-Zone	2021-02-12	2	8.1	351	25.9	26	25.9
PR-Isolation-Zone	2021-02-13	2.8	8.3	460	60.1	60.2	60.1
PR-Isolation-Zone	2021-02-13	1.6	7.4	423	44.6	44.6	44.6
PR-Isolation-Zone	2021-02-14	0.4	7	430	33.6	33.5	33.6
PR-Isolation-Zone	2021-02-14	0.9	8.1	437	30.5	30.5	30.5
PR-Isolation-Zone	2021-02-16	0.9	8.4	443	31.7	31.7	31.7
PR-Isolation-Zone	2021-02-17	2.3	8	449	39.3	39.2	39.3
PR-Isolation-Zone	2021-02-17	2.1	8.1	451	38.1	38.1	38.1
PR-Isolation-Zone	2021-02-06	2.2	8.3	435	14.3	14.4	14.3
PR-Isolation-Zone	2021-02-18	1.2	7.4	489	26.5	26.5	26.5
PR-Isolation-Zone	2021-02-19	1.3	8.6	507	19.9	19.9	19.9
PR-Isolation-Zone	2021-02-20	1.9	8.2	333	26.5	26.3	26.5
PR-Isolation-Zone	2021-02-21	3.3	8.1	396	34.4	35.3	34.4
PR-Isolation-Zone	2021-02-21	4	8.5	334	65.9	65.3	65.9
PR-Isolation-Zone	2021-02-22	4.6	8.2	287	62.9	62.9	62.9
PR-Isolation-Zone	2021-02-23	3.8	8.1	476	44	44	44
PR-Isolation-Zone	2021-02-23	4.1	8.2	410	55.9	56	55.9
PR-Isolation-Zone	2021-02-24	4.8	8.6	388	62.4	62.3	62.4
PR-Isolation-Zone	2021-02-24	3.9	8.4	379	63.4	63.5	63.4
PR-Isolation-Zone	2021-02-15	1	7.9	442	21.2	21.2	21.2
PR-Isolation-Zone	2021-02-15	0.8	7.9	434	41.9	41.7	41.9
PR-Isolation-Zone	2021-02-25	2.5	8.2	404	100	102	100
PR-Isolation-Zone	2021-02-25	2.1	8.3	400	103	101	103
PR-Isolation-Zone	2021-02-26	0.9	8.7	307	25.7	25.6	25.7
PR-Isolation-Zone	2021-02-26	0.5	8.6	301	21.6	21.6	21.6
PR-Isolation-Zone	2021-02-27	2.6	8.7	303	15.5	15.5	15.5
PR-Isolation-Zone	2021-02-27	3.5	8.7	287	15.7	15.7	15.7
PR-Isolation-Zone	2021-02-28	1.2	8.7	308	14.5	14.6	14.5
PR-Isolation-Zone	2021-02-28	1.8	8.6	314	14.8	14.7	14.8
PR-Isolation-Zone	2021-03-01	1.4	8.6	294	13.6	13.7	13.6
PR-Isolation-Zone	2021-03-02	3.6	8.4	290	15.8	15.7	15.8
PR-Isolation-Zone	2021-03-02	3.4	8.4	288	14.8	14.7	14.8
PR-Isolation-Zone	2021-03-03	4.1	8.4	266	14.1	14	14.1
PR-Isolation-Zone	2021-03-03	3.9	8.6	243	13.6	13.5	13.6
PR-Isolation-Zone	2021-03-04	5.3	8.6	255	15.7	13.8	15.7
PR-Isolation-Zone	2021-03-04	5.1	8.5	261	13.1	13	13.1
PR-Isolation-Zone	2021-03-05	4.2	8.6	244	10.4	10.8	10.4
PR-Isolation-Zone	2021-03-05	4.1	8.6	252	10.3	10.1	10.3
PR-Isolation-Zone	2021-03-06	3.5	8.6	240	7.1	7.1	7.1
PR-Isolation-Zone	2021-03-06	3.8	8.6	258	7	7	7
PR-Isolation-Zone	2021-03-07	3.2	8.6	244	11.3	11.3	11.3
PR-Isolation-Zone	2021-03-07	2.7	8.6	253	10.5	10.1	10.5
PR-Isolation-Zone	2021-03-09	3	8.2	273	16.8	16.8	16.8
PR-Isolation-Zone	2021-03-09	2.5	8	245	16.9	17	16.9
PR-Isolation-Zone	2021-03-10	3.8	8.1	264	5.9	6	5.9
PR-Isolation-Zone	2021-03-10	3.9	8.1	258	5.3	5.3	5.3
PR-Isolation-Zone	2021-03-11	4.1	8.4	278	8.4	8.4	8.4
PR-Isolation-Zone	2021-03-11	3.9	8.3	270	8.1	8.1	8.1
PR-Isolation-Zone	2021-03-12	2.9	8.1	271	7.6	7.6	7.6
PR-Isolation-Zone	2021-03-12	2.6	8.1	278	7.8	7.8	7.8
PR-Isolation-Zone	2021-03-13	2.7	8.1	304	13	12.8	13
PR-Isolation-Zone	2021-03-13	2.8	8.2	316	12.4	12.1	12.4
PR-Isolation-Zone	2021-03-14	1.6	8.2	289	9.6	9.6	9.6
PR-Isolation-Zone	2021-03-15	4.8	8.4	272	5.5	5.5	5.5
PR-Isolation-Zone	2021-03-15	4.7	8.4	279	5.5	5.5	5.5
PR-Isolation-Zone	2021-03-16	4.5	8.4	254	17.5	17.4	17.5
PR-Isolation-Zone	2021-03-16	4.1	8.4	255	16.8	16.7	16.8
PR-Isolation-Zone	2021-03-08	2.6	8.7	261	11	11.1	11
PR-Isolation-Zone	2021-03-08	2.7	8.6	253	10.5	10.4	10.5
PR-Isolation-Zone	2021-03-17	5.6	8.4	217	9.2	9.2	9.2
PR-Isolation-Zone	2021-03-18	2.1	8.4	261	12.7	12.7	12.7
PR-Isolation-Zone	2021-03-19	3.8	8.4	263	13.8	13.7	13.8
PR-Isolation-Zone	2021-03-20	1.6	8.6	222	13.5	13.5	13.5
PR-Isolation-Zone	2021-03-24	3.3	8.4	223	20.1	20.4	20.1
PR-Isolation-Zone	2021-03-25	3.9	8.3	222	4.2	4.4	4.2
PR-Isolation-Zone	2021-03-26	4.5	8.4	218	5.7	5.7	5.7
PR-Isolation-Zone	2021-03-27	4.5	8.3	220	6.8	6.9	6.8
PR-Isolation-Zone	2021-03-28	2.4	8.2	220	6.3	6.4	6.3
PR-Isolation-Zone	2021-03-29	2.4	8.3	216	3.6	3.6	3.6
PR-Isolation-Zone	2021-03-30	3	8.4	281	8.7	8.6	8.7

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
PR-Isolation-Zone	2021-03-31	4.3	8.3	260	4.8	4.8	4.8
PR-Isolation-Zone	2021-04-02	4.2	8.2	364	6.5	6.4	6.5
PR-Isolation-Zone	2021-04-03	5.6	8	333	7	7	7
PR-Isolation-Zone	2021-04-04	7.3	8.2	361	6	6	6
PR-Isolation-Zone	2021-04-05	4.8	8.1	319	18.8	18.7	18.8
PR-Isolation-Zone	2021-04-06	5.6	8.1	232	3.4	3.4	3.4
PR-Isolation-Zone	2021-04-07	4.6	8.1	223	4.6	4.4	4.6
PR-Isolation-Zone	2021-04-08	3.6	8.2	256	3.6	3.6	3.6
PR-Isolation-Zone	2021-04-09	2.6	8.2	276	3.8	3.7	3.8
PR-Isolation-Zone	2021-04-10	3.3	8.3	235	6.7	6.7	6.7
PR-Isolation-Zone	2021-04-11	3.9	8.2	260	4.2	4.1	4.2
PR-Isolation-Zone	2021-04-12	4.2	8.4	255	4.2	4	4.2
PR-Isolation-Zone	2021-04-14	4.3	7.9	206	12.6	12.6	12.6
PR-Isolation-Zone	2021-04-13	11.7	8.2	216	7.1	7.1	7.1
PR-Isolation-Zone	2021-04-17	8.5	8.3	219	4.8	4.8	4.8
PR-Isolation-Zone	2021-04-18	1.3	7.8	214	12.1	12.1	12.1
PR-Isolation-Zone	2021-04-19	5	8	224	3.2	3.2	3.2
PR-Isolation-Zone	2021-04-15	7.6	7.8	216	5.8	5.8	5.8
PR-Isolation-Zone	2021-04-16	9	8.2	209	6.8	8.9	6.8
PR-Isolation-Zone	2021-04-28	5.3	8.5	261	2.7	2.6	2.7
PR-Isolation-Zone	2021-04-29	3.9	8.4	232	10	10	10
PR-Isolation-Zone	2021-04-26	3	8	231	3.9	3.9	3.9
PR-Isolation-Zone	2021-04-25	9	8	205	4.4	4.4	4.4
PR-Isolation-Zone	2021-04-24	5	7.8	234	3.6	3.6	3.6
PR-Isolation-Zone	2021-04-20	3	8	203	2.7	2.7	2.7
PR-Isolation-Zone	2021-04-21	4	7.9	258	5.4	5.4	5.4
PR-Isolation-Zone	2021-04-22	4.5	8.2	189.6	8	8	8
PR-Isolation-Zone	2021-04-30	6.3	8.2	246	5.9	5.8	5.9
PR-Isolation-Zone	2021-05-01	6.7	8.2	253	2	2.2	2
PR-Isolation-Zone	2021-05-02	6.8	8	231	2.2	2.2	2.2
PR-Isolation-Zone	2021-05-03	7.3	8.2	256	2.8	2.7	2.8
PR-Isolation-Zone	2021-05-04	11.7	7.3	239	4.2	4.2	4.2
PR-Isolation-Zone	2021-05-05	9.4	7.6	227	14.5	14.3	14.5
PR-Isolation-Zone	2021-05-06	8.6	7.7	235	6.9	6.9	6.9
PR-Isolation-Zone	2021-05-07	7.6	8.4	235	2	2	2
PR-Isolation-Zone	2021-05-08	8.5	7.6	236	5.6	5.7	5.6
PR-Isolation-Zone	2021-05-09	10.3	7.7	217	7.9	7.9	7.9
PR-Isolation-Zone	2021-05-10	3.3	7.9	228	3.2	3.2	3.2
PR-Isolation-Zone	2021-05-11	5.4	7.8	245	0.4	0.4	0.4
PR-Isolation-Zone	2021-05-12	6.5	8	262	1.4	1.3	1.4
PR-Isolation-Zone	2021-05-13	6.1	7.8	267	0.6	0.6	0.6
PR-Isolation-Zone	2021-05-14	6.8	8	257	1	1.1	1
PR-Isolation-Zone	2021-05-15	7	7.8	265	0.8	0.7	0.8
PR-Isolation-Zone	2021-05-16	7	8	260	0.7	0.7	0.7
PR-Isolation-Zone	2021-05-17	5.5	8.1	265	0.7	0.7	0.7
PR-Isolation-Zone	2021-05-18	5.3	8.1	268	0.6	0.6	0.6
PR-Isolation-Zone	2021-05-19	6.5	7.7	263	1.2	1.3	1.2
PR-Isolation-Zone	2021-05-20	7	7.5	265	1	1	1
PR-Isolation-Zone	2021-05-21	7.1	7.9	256	1.4	1.4	1.4
PR-Isolation-Zone	2021-05-22	6.1	8	260	2.4	2.5	2.4
PR-Isolation-Zone	2021-05-23	7.9	8.1	264	2	2.1	2
PR-Isolation-Zone	2021-05-24	12.6	7.4	244	1.5	1.5	1.5
PR-Isolation-Zone	2021-05-25	5.5	7.4	240	1	1	1
PR-Isolation-Zone	2021-05-26	8.8	7.6	238	9.8	9.8	9.8
PR-Isolation-Zone	2021-05-27	7.9	7.5	237	2.6	2.6	2.6
PR-Isolation-Zone	2021-05-28	12.3	7.4	243	1.7	1.7	1.7
PR-Isolation-Zone	2021-05-29	12.4	7.5	261	3.5	3.4	3.5
PR-Isolation-Zone	2021-05-30	11.4	7.6	252	7.8	7.8	7.8
PR-Isolation-Zone	2021-05-31	6.4	7.6	247	1.3	1.3	1.3
PR-Isolation-Zone	2021-06-01	8.1	8.1	285	0.7	0.7	0.7
PR-Isolation-Zone	2021-06-02	6.9	7.6	281	0.4	0.5	0.4
PR-Isolation-Zone	2021-06-03	6.9	7.5	276	1.6	1.6	1.6
PR-Isolation-Zone	2021-06-04	7.4	7.8	279	0.6	0.6	0.6
PR-Isolation-Zone	2021-06-05	7.7	7.8	277	1.4	1.5	1.4
PR-Isolation-Zone	2021-06-06	7.1	7.6	279	2.1	2.3	2.1
PR-Isolation-Zone	2021-06-07	8.3	7.6	282	2.4	2.4	2.4
PR-Isolation-Zone	2021-06-08	9.8	7.5	284	1	0.9	1
PR-Isolation-Zone	2021-06-09	8.3	7.6	287	0.6	0.6	0.6
PR-Isolation-Zone	2021-06-10	9.1	7.5	289	0.6	0.6	0.6
PR-Isolation-Zone	2021-06-11	8	7.5	296	0.8	0.8	0.8
PR-Isolation-Zone	2021-06-12	9.4	8	286	1.7	1.7	1.7
PR-Isolation-Zone	2021-06-13	9.2	7.6	295	1.5	1.5	1.5
PR-Isolation-Zone	2021-06-14	8.7	7.6	287	1.4	1.3	1.4
PR-Isolation-Zone	2021-06-15	9.2	7.5	273	1.4	1.4	1.4
PR-Isolation-Zone	2021-06-16	9.5	7.5	270	9.4	9.4	9.4
PR-Isolation-Zone	2021-06-17	10.3	7.8	261	3.6	3.5	3.6
PR-Isolation-Zone	2021-06-18	12.3	7.6	270	3.5	3.5	3.5
PR-Isolation-Zone	2021-06-19	13.3	7.4	273	7	7	7
PR-Isolation-Zone	2021-06-20	14.5	7.5	278	4.3	4.3	4.3
PR-Isolation-Zone	2021-06-21	8.8	7.5	276	4	4	4
PR-Isolation-Zone	2021-06-22	9.5	8.1	302	5.4	5.2	5.4
PR-Isolation-Zone	2021-06-23	10.4	7.9	285	5.7	5.6	5.7
PR-Isolation-Zone	2021-06-24	7.3	7.7	301	4	4	4
PR-Isolation-Zone	2021-06-25	8	7.8	310	0.8	0.7	0.8
PR-Isolation-Zone	2021-06-26	9.4	7.7	307	1.8	1.9	1.8
PR-Isolation-Zone	2021-06-27	17.9	7.8	314	4	4.1	4
PR-Isolation-Zone	2021-06-28	10	7.4	300	1.1	1	1.1
PR-Isolation-Zone	2021-06-29	9.3	7.6	309	1.7	1.6	1.7
PR-Isolation-Zone	2021-06-30	9.6	7.4	299	1	1	1
PR-Isolation-Zone	2021-07-01	8.4	7.6	302	1.1	1.1	1.1
PR-Isolation-Zone	2021-07-02	12.3	7.4	272	4.2	4.2	4.2
PR-Isolation-Zone	2021-07-03	7	7.7	317	1.6	1.6	1.6
PR-Isolation-Zone	2021-07-04	8.5	7.7	303	2	2	2
PR-Isolation-Zone	2021-07-05	8.1	7.4	307	2	2	2
PR-Isolation-Zone	2021-07-06	14.7	7.6	284	2.4	2.3	2.4
PR-Isolation-Zone	2021-07-07	16.3	7.4	286	4.7	4.7	4.7
PR-Isolation-Zone	2021-07-08	15.9	8	322	2.4	2.4	2.4
PR-Isolation-Zone	2021-07-09	13.4	8	322	2.8	2.8	2.8
PR-Isolation-Zone	2021-07-10	10.2	8.1	283	3	3	3
PR-Isolation-Zone	2021-07-11	13.1	8.1	309	2.5	2.5	2.5
PR-Isolation-Zone	2021-07-12	7.8	8.2	307	2.3	2.3	2.3
PR-Isolation-Zone	2021-07-13	10.5	8.2	338	1.1	1.1	1.1
PR-Isolation-Zone	2021-07-14	9.4	8.3	345	0.9	0.8	0.9
PR-Isolation-Zone	2021-07-15	9.4	8.1	339	1	1	1
PR-Isolation-Zone	2021-07-16	8.1	8.2	336	1.2	1.3	1.2
PR-Isolation-Zone	2021-07-17	7.6	8.2	347	0.9	0.9	0.9
PR-Isolation-Zone	2021-07-18	9.8	8.3	313	1.7	1.7	1.7
PR-Isolation-Zone	2021-07-19	8.9	8.2	346	1.1	1	1.1
PR-Isolation-Zone	2021-07-20	9.2	8.2	336	1.6	1.6	1.6
PR-Isolation-Zone	2021-07-21	8	8	306	21.7	21.2	21.7

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
PR-Isolation-Zone	2021-07-22	7.9	8.3	347	1	1	1
PR-Isolation-Zone	2021-07-23	8.4	8.1	354	1.5	1.4	1.5
PR-Isolation-Zone	2021-07-24	9.3	8.2	344	1.1	1.1	1.1
PR-Isolation-Zone	2021-07-25	9.1	8.1	351	1.3	1.3	1.3
PR-Isolation-Zone	2021-07-29	15.1	8.2	289	9.6	9.6	9.6
PR-Isolation-Zone	2021-07-30	16.3	8.3	276	8.8	8.8	8.8
PR-Isolation-Zone	2021-07-31	15.2	8.3	285	9	9	9
PR-Isolation-Zone	2021-08-01	13.9	8.3	277	4	4	4
PR-Isolation-Zone	2021-08-02	12.2	8.2	254	5.2	5.2	5.2
PR-Isolation-Zone	2021-08-04	16.8	8.1	297	3.8	3.9	3.8
PR-Isolation-Zone	2021-08-05	14.1	8.2	292	3.9	3.9	3.9
PR-Isolation-Zone	2021-08-07	11.1	8.4	275	3.3	3.3	3.3
PR-Isolation-Zone	2021-08-08	13.6	8.2	267	3	3	3
PR-Isolation-Zone	2021-08-09	12.8	8.2	251	2.5	2.5	2.5
PR-Isolation-Zone	2021-08-10	18.5	8.3	201	4.7	4.7	4.7
PR-Isolation-Zone	2021-08-11	13.8	8.3	288	3.1	3.1	3.1
PR-Isolation-Zone	2021-08-12	15.2	8.2	239	6	6	6
PR-Isolation-Zone	2021-08-13	16.5	8.2	261	2.8	2.8	2.8
PR-Isolation-Zone	2021-08-14	14.5	8.1	264	6	6	6
PR-Isolation-Zone	2021-08-15	14.6	8.2	240	6.6	6.6	6.6
PR-Isolation-Zone	2021-08-16	13.3	8.3	246	2.9	2.9	2.9
PR-Isolation-Zone	2021-08-17	14.4	8.2	249	6.3	6.3	6.3
PR-Isolation-Zone	2021-08-18	14	8.3	234	2.6	2.6	2.6
PR-Isolation-Zone	2021-08-19	16	8.3	241	2.8	2.8	2.8
PR-Isolation-Zone	2021-08-20	14.6	8.3	231	3.2	3.2	3.2
PR-Isolation-Zone	2021-08-21	12.9	8.3	243	4.1	4.1	4.1
PR-Isolation-Zone	2021-08-22	11.2	8.3	236	21.3	21.2	21.3
PR-Isolation-Zone	2021-08-23	13.3	8.3	242	5.1	5.1	5.1
PR-Isolation-Zone	2021-08-24	13.1	8.4	254	3.7	3.6	3.7
PR-Isolation-Zone	2021-08-25	12.1	8.2	262	4.1	4.1	4.1
PR-Isolation-Zone	2021-08-26	12.3	8.5	260	4.1	4.1	4.1
PR-Isolation-Zone	2021-08-27	12.8	8.3	260	3.9	3.9	3.9
PR-Isolation-Zone	2021-08-29	12.5	8.3	246	4	4	4
PR-Isolation-Zone	2021-08-30	12.4	8.2	246	2.1	2.1	2.1
PR-Isolation-Zone	2021-08-31	11.9	8.2	241	2.2	2.2	2.2
PR-Isolation-Zone	2021-09-01	12.6	8.2	270	1.9	1.9	1.9
PR-Isolation-Zone	2021-09-02	13.2	8.2	248	1.9	1.9	1.9
PR-Isolation-Zone	2021-09-03	13.1	8.2	239	2	2.1	2
PR-Isolation-Zone	2021-09-04	13.1	8.1	259	1.7	1.7	1.7
PR-Isolation-Zone	2021-09-05	13.5	8.5	259	1.9	1.8	1.9
PR-Isolation-Zone	2021-09-06	14	8.5	249	1.8	1.8	1.8
PR-Isolation-Zone	2021-09-07	13.5	8.4	251	2.5	2.5	2.5
PR-Isolation-Zone	2021-09-08	12.4	8.3	249	1.8	1.8	1.8
PR-Isolation-Zone	2021-09-09	14	8.1	255	2.1	2.1	2.1
PR-Isolation-Zone	2021-09-10	13.7	8.3	253	1.8	1.8	1.8
PR-Isolation-Zone	2021-09-11	14.4	8.2	250	3	3	3
PR-Isolation-Zone	2021-09-12	14	8.2	249	4	4	4
PR-Isolation-Zone	2021-09-13	12	8.1	254	3	3	3
PR-Isolation-Zone	2021-09-14	12.3	8.2	252	2.6	2.6	2.6
PR-Isolation-Zone	2021-09-15	11.9	8.3	267	2.6	2.7	2.6
PR-Isolation-Zone	2021-09-16	11.9	8.2	268	5	5	5
PR-Isolation-Zone	2021-09-17	12.7	8.6	252	2.8	2.8	2.8
PR-Isolation-Zone	2021-09-18	12.1	8.2	249	2.6	2.6	2.6
PR-Isolation-Zone	2021-09-19	12.4	8.1	245	2.8	2.8	2.8
PR-Isolation-Zone	2021-09-20	13.8	8.2	263	2.8	2.8	2.8
PR-Isolation-Zone	2021-09-21	13.4	8.3	253	1.8	1.8	1.8
PR-Isolation-Zone	2021-09-22	13.2	8.3	249	2.5	2.4	2.5
PR-Isolation-Zone	2021-09-23	12.5	8.3	243	1.6	1.6	1.6
PR-Isolation-Zone	2021-09-24	12.4	8.5	263	1.5	1.6	1.5
PR-Isolation-Zone	2021-09-25	13.6	8.5	287	1.7	1.7	1.7
PR-Isolation-Zone	2021-09-26	11.8	8.3	239	1.6	1.6	1.6
PR-Isolation-Zone	2021-09-27	11.6	8.3	258	2	2	2
PR-Isolation-Zone	2021-09-28	12.7	8.2	229	2.3	2.3	2.3
PR-Isolation-Zone	2021-09-29	11.3	8.1	299	2.1	2.1	2.1
PR-Isolation-Zone	2021-09-30	13.5	7.9	236	2.8	2.8	2.8
PR-Isolation-Zone	2021-10-01	11.5	8	289	2.2	2.2	2.2
PR-Isolation-Zone	2021-10-02	11.7	8	227	2.2	2.2	2.2
PR-Isolation-Zone	2021-10-03	11	7.8	228	2.2	2.2	2.2
PR-Isolation-Zone	2021-10-04	9.3	7.8	220	2.2	2.2	2.2
PR-Isolation-Zone	2021-10-05	10.8	7.9	229	2.3	2.3	2.3
PR-Isolation-Zone	2021-10-06	11.1	7.8	252	2.1	2.2	2.1
PR-Isolation-Zone	2021-10-07	10.8	7.8	250	2.1	2.1	2.1
PR-Isolation-Zone	2021-10-09	11.2	8.3	227	2	2	2
PR-Isolation-Zone	2021-10-10	11.3	8.3	224	2.1	2.1	2.1
PR-Isolation-Zone	2021-10-11	11.4	8.2	227	2.2	2.2	2.2
PR-Isolation-Zone	2021-10-12	10.9	8.2	224	2.3	2.3	2.3
PR-Isolation-Zone	2021-10-13	11.2	8.1	186	3.5	3.5	3.5
PR-Isolation-Zone	2021-10-14	11.1	8.3	229	3.5	3.5	3.5
PR-Isolation-Zone	2021-10-15	11.2	8.4	218	2.3	2.3	2.3
PR-Isolation-Zone	2021-10-16	11	8.3	216	2.4	2.4	2.4
PR-Isolation-Zone	2021-10-17	10.6	8.2	224	4.5	4.5	4.5
PR-Isolation-Zone	2021-10-18	10	8	240	3.1	3.2	3.1
PR-Isolation-Zone	2021-10-19	9.7	8.1	219	3.2	3.2	3.2
PR-Isolation-Zone	2021-10-20	9.2	7.8	220	2.9	2.9	2.9
PR-Isolation-Zone	2021-10-21	10	7.9	220	3	3	3
PR-Isolation-Zone	2021-10-22	9.3	8.1	207	5	5	5
PR-Isolation-Zone	2021-10-23	9	8.3	210	3	3	3
PR-Isolation-Zone	2021-10-24	8.9	8.1	210	3.5	3.5	3.5
PR-Isolation-Zone	2021-10-25	9.1	8.1	210	3.7	3.7	3.7
PR-Isolation-Zone	2021-10-26	9.7	8.1	224	3.2	3.1	3.2
PR-Isolation-Zone	2021-10-27	10.4	8.1	234	2.6	2.6	2.6
PR-Isolation-Zone	2021-10-28	9.7	8.2	228	2.7	2.7	2.7
PR-Isolation-Zone	2021-10-29	9.6	8.4	252	2.7	2.7	2.7
PR-Isolation-Zone	2021-10-30	9.6	8.2	249	3.2	3.2	3.2
PR-Isolation-Zone	2021-10-31	8.9	8.3	257	3.5	3.5	3.5
PR-Isolation-Zone	2021-11-01	9.4	8.3	253	2.6	2.6	2.6
PR-Isolation-Zone	2021-11-02	9.3	8.3	250	6.8	6.8	6.8
PR-Isolation-Zone	2021-11-03	9.6	8.4	255	3.2	3.2	3.2
PR-Isolation-Zone	2021-11-04	9.4	8.3	235	2.6	2.6	2.6
PR-Isolation-Zone	2021-11-05	9.1	8.3	228	2.6	2.5	2.6
PR-Isolation-Zone	2021-11-06	9.3	8.4	234	3	3.1	3
PR-Isolation-Zone	2021-11-07	8.8	8.4	239	4.6	4.6	4.6
PR-Isolation-Zone	2021-11-08	7.9	8.4	236	2.7	2.7	2.7
PR-Isolation-Zone	2021-11-09	8.9	8.3	245	3.1	3.1	3.1
PR-Isolation-Zone	2021-11-10	7.5	8.4	234	2.8	2.8	2.8
PR-Isolation-Zone	2021-11-11	6.6	8.2	235	3	3	3
PR-Isolation-Zone	2021-11-12	6.8	8.2	234	3.4	3.4	3.4
PR-US-R5A	2021-06-30	17.7	7.8	197	7.2	7.3	7.2
PR-US-R5A	2021-07-14	14	8.4	210	2.6	2.7	2.6
PR-US-R5A	2021-07-21	12.6	8.4	219	5.1	5	5.1

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
PR-US-R5A	2021-08-04	19.4	8.2	280	4	4	4
PR-US-R5A	2021-08-25	18.5	8.3	317	14.1	14	14.1
PR-US-R5A	2021-09-01	14.8	8.5	304	3.1	3.2	3.1
PR-US-R5A	2021-09-08	14.4	8.3	196	2.8	2.8	2.8
PR-US-R5A	2021-09-12	16.7	8.2	310	3	3	3
PR-US-R5A	2021-09-15	14.5	8.2	472	4	4	4
PR-US-R5A	2021-09-19	13.9	8.5	189	5.5	5.4	5.5
PR-US-R5A	2021-09-22	15.1	8.3	200	5	5	5
PR-US-R5A	2021-09-29	13.8	8.2	185	5	5	5
PR-US-R5A	2021-10-06	10.9	8	180	7.8	7.9	7.8
PR-US-R5A	2021-10-13	11.9	8.2	164	7	7.1	7
PR-US-R5A	2021-10-20	9.6	8.2	179	4	4	4
PR-US-R5A	2021-10-29	7.4	8.1	185	5	5	5
PR-US-R5A	2021-10-30	6.8	8.2	215	11.1	11.1	11.1
PR-US-R5A	2021-10-31	6.9	8.6	184	5.4	5.4	5.4
PR-US-R5A	2021-11-01	6.2	8.5	210	4.9	4.9	4.9
PR-US-R5A	2021-11-02	5.5	8.2	215	5.8	5.8	5.8
PR-US-R5A	2021-11-09	6.2	8.5	191	6.2	6.2	6.2
PR-US-R5A	2021-11-10	5.7	8.6	195	5.4	5.4	5.4
PR-US-R5A	2021-11-25	7.5	8.4	196	4.2	4.3	4.2
PR-US-R5A	2021-12-02	4.3	7.8	411	4	4	4
PR-US-R5A	2021-12-09	3.9	8.4	218	4.7	4.6	4.7
PR-US-R5A	2021-12-10	3.7	8.4	227	5.1	5	5.1
PR-US-R5A	2021-12-11	4	8.6	218	4.9	4.9	4.9
PR-US-R5A	2021-12-12	0.2	8.6	225	6.4	6.4	6.4
PR-US-R5A	2021-12-13	1.4	8.6	223	4.4	4.4	4.4
PR-US-R5A	2021-12-14	1.2	8.6	221	5.1	5.1	5.1
PR-US-R5A	2021-12-15	1.3	8.5	220	4.1	4	4.1
PR-US-R5A	2021-12-23	0.3	8.9	164	10	9.9	10
PR-US-R5A	2021-07-07	18.6	7.6	243	5.4	5.5	5.4
PR-US-R5A	2021-07-27	16.2	8.5	222	3.8	3.8	3.8
PR-US-R5A	2021-08-11	21.7	7.8	515	2.7	2.7	2.7
PR-US-R5A	2021-08-18	18.1	8.5	250	2.7	2.7	2.7
PR-US-R5b	2021-05-11	14.6	8.2	211	87	85	87
PR-US-R5b	2021-05-12	14.9	8.2	217	86	84	86
PR-US-R5b	2021-05-13	17.8	8	218	70	72	70
R5a_MOB_US	2021-07-27	21.3	8.6	285	21	21	21
R5a_MOB_US	2021-07-28	21.1	8.6	280	19.2	19.1	19.2
R5b-P2-W-Sump	2021-03-09	1.8	7	477	45	44.6	45
R5b-P2-W-Sump	2021-03-13	1.2	8.3	480	58.5	58.4	58.5
R5b-P2-W-Sump	2021-03-17	3.7	8.3	428	65.1	65.1	65.1
R5b-P2-W-Sump	2021-03-18	3.4	8	358	989	989	989
R5b-P2-W-Sump	2021-03-20	1	8.5	1117	96.6	96.7	96.6
R5b-P2-W-Sump	2021-03-31	2	7.8	551	OR	OR	OR
R5b-P2-W-Sump	2021-04-01	4.8	8.3	699	2757	2756	2757
R5b-P2-W-Sump	2021-04-02	3.9	8.1	1081	816	815	816
R5b-P2-W-Sump	2021-04-03	8.5	8	897	75	75	75
R5b-P2-W-Sump	2021-04-04	5.9	8.2	1356	100.4	99.5	100.4
R5b-P2-W-Sump	2021-04-07	8.9	8.3	1408	79	78	79
R5b-P2-W-Sump	2021-04-09	2.2	8	1154	35.2	35.3	35.2
R5b-P2-W-Sump	2021-04-28	4	8.3	847	52	51	52
R5b-P2-W-Sump	2021-04-30	14.8	8.2	783	58	57.9	58
R5b-P2-W-Sump	2021-05-02	10.7	8.4	825	67.5	67.4	67.5
R5b-P2-W-Sump	2021-05-05	17.9	8	763	21	20.8	21
R5b-P2-W-Sump	2021-05-08	13.5	8.1	753	16.6	16.5	16.6
R5b-P2-W-Sump	2021-05-09	14.1	8	762	10	10	10
R5b-P2-W-Sump	2021-05-11	10.3	8.3	869	6.9	6.6	6.9
R5b-P2-W-Sump	2021-05-12	19.2	8.2	803	3.6	3.6	3.6
R5b-P2-W-Sump	2021-05-13	18.9	8.2	864	4.5	4.6	4.5
R5b-P2-W-Sump	2021-05-15	15	8.2	874	2.3	2.3	2.3
R5b-P2-W-Sump	2021-05-16	13.7	8.1	701	1.5	1.4	1.5
R5b-P2-W-Sump	2021-05-17	12.8	8.2	874	1.3	1.3	1.3
R5b-P2-W-Sump	2021-05-18	11.3	8.4	1145	46	46	46
R5b-P2-W-Sump	2021-05-19	20.3	8.3	871	13.8	13.5	13.8
R5b-P2-W-Sump	2021-05-20	21	8.2	867	12.4	12.2	12.4
R5b-P2-W-Sump	2021-05-21	21.4	8.2	847	4.1	4.2	4.1
R5b-P2-W-Sump	2021-05-22	19.6	8.2	876	4.8	4.6	4.8
R5b-P2-W-Sump	2021-05-23	18.5	8.2	884	4.9	4.8	4.9
R5b-P2-W-Sump	2021-06-01	24.1	8.2	1252	45.3	44.4	45.3
R5b-P2-W-Sump	2021-06-02	26.4	8.3	1087	5	5	5
R5b-P2-W-Sump	2021-06-04	21.2	8.4	1030	11	11.2	11
R5b-P2-W-Sump	2021-06-05	21.9	8.4	1025	4.7	4.6	4.7
R5b-P2-W-Sump	2021-06-06	21.3	8.4	1054	3.8	3.9	3.8
R5b-P2-W-Sump	2021-06-07	18.3	8.3	934	13.8	14.1	13.8
R5b-P2-W-Sump	2021-06-09	20.8	8.3	859	5.2	5.2	5.2
R5b-P2-W-Sump	2021-06-11	22.1	8.2	936	9.9	9.6	9.9
R5b-P2-W-Sump	2021-06-13	16.8	8.3	870	10.7	10.7	10.7
R5b-P2-W-Sump	2021-06-19	24.7	8.2	801	12.3	12.3	12.3
R5b-P2-W-Sump	2021-06-22	22.1	8.2	874	5.7	5.7	5.7
R5b-P2-W-Sump	2021-06-24	22.2	8.5	856	10.4	10.4	10.4
R5b-P2-W-Sump	2021-06-26	28.5	8.2	920	12.9	12.5	12.9
R5b-P2-W-Sump	2021-06-28	30.1	8.2	995	77.7	76.7	77.7
R5b-P2-W-Sump	2021-06-29	33.7	8.1	914	18.2	18.5	18.2
R5b-P2-W-Sump	2021-07-01	24.3	8.4	946	16.1	15.9	16.1
R5b-P2-W-Sump	2021-07-03	17.8	8.4	899	4.4	4.4	4.4
R5b-P2-W-Sump	2021-07-13	26.1	8.6	1038	7.4	7.4	7.4
R5b-P2-W-Sump	2021-07-15	26.6	8.6	1027	6	5.9	6
R5b-P2-W-Sump	2021-07-17	15.1	8.6	1191	9.4	9.5	9.4
R5b-P2-W-Sump	2021-07-19	20	8.8	1005	7.2	7.2	7.2
R5b-P2-W-Sump	2021-07-21	16.7	8.3	1740	51	50.9	51
R5b-P2-W-Sump	2021-07-23	21.3	8.7	1054	36	35.7	36
R5b-P2-W-Sump	2021-07-25	22.4	8.7	1028	37	37.5	37
R5b-P2-W-Sump	2021-08-03	25.2	8.4	1099	19	19.1	19
R5b-P2-W-Sump	2021-08-05	26	8.5	1096	16.4	16.4	16.4
R5b-P2-W-Sump	2021-08-07	19.2	8.5	1303	19.6	19.3	19.6
R5b-P2-W-Sump	2021-08-20	18	8.6	1095	2.9	2.9	2.9
R5b-P2-W-Sump	2021-08-25	17.9	8.4	1289	15.6	15.8	15.6
R5b-P2-W-Sump	2021-09-01	15.6	8.6	847	5.9	5.8	5.9
R5b-P2-W-Sump	2021-09-03	21.4	8.6	825	4.3	4.3	4.3
R5b-P2-W-Sump	2021-09-15	12.8	8.5	903	11.1	11.3	11.1
R5b-P2-W-Sump	2021-09-18	11.8	8.4	882	28	28	28
RBAA-001	2021-03-19	5.3	7.8	970	40.1	40	40.1
RBAC-Seep	2021-12-21	6.3	8.2	1016	4.5	4.5	4.5
RBAC-Sump	2021-01-01	4.8	7.4	1060	6.7	6.7	6.7
RBAC-Sump	2021-01-02	3.4	8	1116	5.4	5.4	5.4
RBAC-Sump	2021-01-07	5	8.2	1096	2	1.9	2
RBAC-Sump	2021-01-10	4.6	8.2	1137	4	4	4
RBAC-Sump	2021-01-13	7.5	8	990	4	4	4
RBAC-Sump	2021-01-15	6.9	7.8	834	2.3	2.3	2.3
RBAC-Sump	2021-01-23	5.7	8.2	1023	5.6	5.6	5.6

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RBAC-Sump	2021-02-09	4.4	8.5	1033	4	4	4
RBAC-Sump	2021-02-13	2.7	7.9	990	2.3	2.3	2.3
RBAC-Sump	2021-02-21	9.1	8.1	966	2.6	2.5	2.6
RBAC-Sump	2021-02-27	6.2	8.5	1014	6.4	7	6.4
RBAC-Sump	2021-03-03	7.5	8.4	965	49.2	49.2	49.2
RBAC-Sump	2021-03-04	8.7	8.5	261	79	79.6	79
RBAC-Sump	2021-03-09	8.3	8	1053	19.1	19.1	19.1
RBAC-Sump	2021-03-11	8.4	8.2	997	13.6	13.6	13.6
RBAC-Sump	2021-03-13	4.6	8.2	1019	76.1	76.2	76.1
RBAC-Sump	2021-03-15	6.7	7.2	1070	8.5	8.4	8.5
RBAC-Sump	2021-03-17	6.3	7.9	563	OR	OR	OR
RBAC-Sump	2021-03-20	2.6	9.1	1029	181	184	181
RBAC-Sump	2021-03-24	8.5	8.3	793	99	101	99
RBAC-Sump	2021-03-28	4.3	8.2	765	80	80	80
RBAC-Sump	2021-03-30	6	8	920	6.5	6.6	6.5
RBAC-Sump	2021-03-31	5.7	8.3	651	131	130	131
RBAC-Sump	2021-04-02	7.2	8.1	765	30.2	29.8	30.2
RBAC-Sump	2021-04-06	5.7	8.1	865	30	30.6	30
RBAC-Sump	2021-04-10	4.2	8	909	3.6	3.5	3.6
RBAC-Sump	2021-04-28	5	7.9	930	7.8	7.7	7.8
RBAC-Sump	2021-04-30	11.5	8.2	1682	50.5	50	50.5
RBAC-Sump	2021-05-02	13	8.2	1318	49.3	49.3	49.3
RBAC-Sump	2021-05-05	18.7	8.8	1439	OR	OR	OR
RBAC-Sump	2021-05-08	13.6	7.7	801	3.3	3.4	3.3
RBAC-Sump	2021-05-11	9.3	7.9	902	2	1.7	2
RBAC-Sump	2021-05-13	10.8	7.9	895	6.8	6.8	6.8
RBAC-Sump	2021-05-15	11.9	7.9	909	14.1	14.4	14.1
RBAC-Sump	2021-05-18	8.8	7.9	806	2.6	2.6	2.6
RBAC-Sump	2021-05-21	16.8	8	1572	32.7	32.8	32.7
RBAC-Sump	2021-05-29	18.5	8	837	5	5	5
RBAC-Sump	2021-06-02	19	7.8	918	2.5	2.3	2.5
RBAC-Sump	2021-06-05	16.4	8.1	1277	26.9	27.2	26.9
RBAC-Sump	2021-06-07	15.4	7.4	2510	82.2	82.2	82.2
RBAC-Sump	2021-06-09	17.5	7.9	2090	1094	1091	1094
RBAC-Sump	2021-06-11	16.8	7.9	936	4.3	4.4	4.3
RBAC-Sump	2021-06-13	15.3	8	937	5.4	5.4	5.4
RBAC-Sump	2021-06-16	14.4	8.2	1952	1639	1638	1639
RBAC-Sump	2021-06-22	19.8	8.1	967	11.4	11.3	11.4
RBAC-Sump	2021-06-24	22	8.8	1675	19.4	19.4	19.4
RBAC-Sump	2021-06-26	21.9	8	1840	14.6	14.5	14.6
RBAC-Sump	2021-06-28	26.3	8.1	1515	18.5	18.6	18.5
RBAC-Sump	2021-07-02	25.1	8.1	1307	22.7	22.7	22.7
RBAC-Sump	2021-07-04	23	8.2	937	19.1	19.1	19.1
RBAC-Sump	2021-07-13	24.1	8.4	1740	8.8	8.8	8.8
RBAC-Sump	2021-07-15	24.2	8.3	984	4.7	4.7	4.7
RBAC-Sump	2021-07-17	15.6	8.3	1323	693	693	693
RBAC-Sump	2021-07-19	19.7	8.5	1115	18.4	18.3	18.4
RBAC-Sump	2021-07-21	18.5	7.5	2720	OR	OR	OR
RBAC-Sump	2021-07-24	23.3	8.2	1052	100.3	100.7	100.3
RBAC-Sump	2021-08-04	23.8	8	905	14.7	14.7	14.7
RBAC-Sump	2021-08-08	23.5	8.3	825	21.9	21.5	21.9
RBAC-Sump	2021-08-25	21.1	8	1004	52.2	52.5	52.2
RBAC-Sump	2021-08-27	19.6	8	1048	11.3	11.4	11.3
RBAC-Sump	2021-08-30	15.5	8.1	920	5.2	5.2	5.2
RBAC-Sump	2021-09-01	15.4	8.3	933	5.6	5.6	5.6
RBAC-Sump	2021-09-04	17.7	8.1	855	6.2	6.2	6.2
RBAC-Sump	2021-09-14	17.5	8.2	946	45.3	44.8	45.3
RBAC-Sump	2021-09-16	17.3	8.2	701	14.8	14.8	14.8
RBAC-Sump	2021-09-18	15.6	8	750	52.3	52.6	52.3
RBAC-Sump	2021-09-20	13.3	8	1021	88.4	89.1	88.4
RBAC-Sump	2021-09-23	15.9	8.6	1052	17	16.8	17
RBAC-Sump	2021-09-25	19.6	8.1	1267	23.8	23.7	23.8
RBAC-Sump	2021-10-07	8.8	7.8	1327	43.6	42.8	43.6
RBAC-Sump	2021-10-10	11	8.4	646	7.6	7.6	7.6
RBAC-Sump	2021-10-12	12.4	8.4	452	5.6	5.6	5.6
RBAC-Sump	2021-10-14	11.3	8.6	446	6	6	6
RBAC-Sump	2021-10-16	11.1	8	668	11.6	11.6	11.6
RBAC-Sump	2021-10-24	6.9	8	881	5	5	5
RBAC-Sump	2021-10-27	8.6	8.3	956	13.2	13.1	13.2
RBAC-Sump	2021-10-29	6	8.5	888	9.6	9.6	9.6
RBAC-Sump	2021-10-31	4.9	8.2	1101	6.7	6.7	6.7
RBAC-Sump	2021-11-02	6.9	8	727	687	688	687
RBAC-Sump	2021-11-04	5.8	8.2	1212	55	54.3	55
RBAC-Sump	2021-11-06	5.2	8	1169	676	676	676
RBAC-Sump	2021-11-13	9.7	8.4	690	15.3	15.2	15.3
RBAC-Sump	2021-11-16	6.7	9	565	40.8	40.8	40.8
RBAC-Sump	2021-11-18	8.7	8.4	577	55.6	55.4	55.6
RBAC-Sump	2021-11-20	4.7	8.5	541	76.5	76.8	76.5
RBAC-Sump	2021-11-22	5	8.3	1382	22.7	22.8	22.7
RBAC-Sump	2021-11-25	8.4	8.1	1163	6.4	6.4	6.4
RBAC-Sump	2021-11-26	9.9	8.2	1290	16.6	16.8	16.6
RBAC-Sump	2021-11-28	7.2	8	1194	9.9	9.9	9.9
RBAC-Sump	2021-12-04	2.7	8.2	1102	35	35	35
RBAC-Sump	2021-12-07	6.4	8	1502	18.4	18.3	18.4
RBAC-Sump	2021-12-08	9.3	8	1330	18.6	18.3	18.6
RBAC-Sump	2021-12-10	4.6	7.9	1160	4.3	4.3	4.3
RBAC-Sump	2021-12-12	0.5	8.5	1664	25.9	25.8	25.9
RBAC-Sump	2021-12-13	2.3	8	1057	3.2	3.2	3.2
RBAC-Sump	2021-12-14	3.9	8.4	1362	26.1	25.9	26.1
RBAC-Sump	2021-12-16	6.3	8.2	1326	5.8	5.8	5.8
RBAC-Sump	2021-12-19	7.4	8.1	1193	7.1	7.1	7.1
RBAC-Sump	2021-12-21	6.3	8.2	1016	4.5	4.5	4.5
RBAC-Sump	2021-12-23	5.3	8.7	1382	13	12.9	13
RBAC-Sump	2021-12-22	6.2	8.2	1103	4.5	4.5	4.5
RBAC-Sump	2021-12-24	4.8	8.6	1061	6.7	6.7	6.7
RBAC-Sump	2021-12-25	5	8.6	994	6	6.1	6
RBAC-Sump	2021-12-26	3	8.2	940	3.2	3.2	3.2
RBAC-Sump	2021-12-27	2.6	8.2	2000	2.6	2.6	2.6
RBAC-Sump	2021-12-28	4.4	8.1	1023	2.6	2.6	2.6
RBAC-Sump	2021-12-29	4.8	8.4	1044	2.4	2.7	2.4
RBAC-Sump	2021-12-30	4	8.4	1024	3	3	3
RB-Core-Trench-Sump	2021-04-14	13.5	8.6	4640	778	779	778
RCC-Zula-Ditch	2021-02-23	1.3	8.4	270	111	111	111
RSEM-L5E-P2-EOP	2021-06-30	28.5	8.4	1453	3.5	3.6	3.5
RSEM-L5E-P2-EOP	2021-07-01	24.5	8.4	1658	4	3.9	4
RSEM-L5E-P2-EOP	2021-07-02	24.8	8.2	1790	3.6	3.6	3.6
RSEM-L5E-P2-EOP	2021-07-09	26	8.5	2160	3.8	3.8	3.8
RSEM-L5E-P2-EOP	2021-07-10	21.7	8.6	2230	3.2	3.2	3.2
RSEM-L5E-P2-EOP	2021-07-11	22.7	8.6	2330	3.8	3.8	3.8
RSEM-L5E-P2-EOP	2021-07-12	17.3	8.7	2390	4.2	4.2	4.2

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-L5E-P2-EOP	2021-07-13	22.1	8.6	2450	1.7	1.7	1.7
RSEM-L5E-P2-EOP	2021-07-14	24.1	8.6	2500	3	3	3
RSEM-L5E-P2-EOP	2021-07-15	23.4	8.7	2570	2.8	2.7	2.8
RSEM-L5E-P2-EOP	2021-07-16	18.2	8.8	2640	2.3	2.3	2.3
RSEM-L5E-P2-EOP	2021-07-17	18.2	8.7	2680	4.1	4.1	4.1
RSEM-L5E-P2-EOP	2021-07-18	18.4	8.6	2700	2.8	2.8	2.8
RSEM-L5E-P2-EOP	2021-07-19	18.3	8.5	2760	3.1	3	3.1
RSEM-L5E-P2-EOP	2021-07-20	18.5	8.5	2750	11.5	11.4	11.5
RSEM-L5E-P2-EOP	2021-07-21	18	8.6	2740	4.2	4.2	4.2
RSEM-L5E-P2-EOP	2021-07-22	19.4	8.5	2620	16.5	16.5	16.5
RSEM-L5E-P2-EOP	2021-07-23	20.3	8.5	2630	11.9	11.7	11.9
RSEM-L5E-P2-EOP	2021-07-28						
RSEM-L5E-P2-EOP	2021-08-13						
RSEM-L5E-P2-EOP	2021-08-22	16	8.7	2190	13.6	13.5	13.6
RSEM-L5E-P2-EOP	2021-08-23	15.7	8.5	2110	7.4	7.4	7.4
RSEM-L5E-P2-EOP	2021-08-24	18.8	8.3	2110	7.6	7.6	7.6
RSEM-L5E-P2-EOP	2021-08-25	18	8.1	2110	5	5	5
RSEM-L5E-P2-EOP	2021-08-26	19	8.6	2090	4.6	4.6	4.6
RSEM-L5E-P2-EOP	2021-09-05	17.1	8.4	2300	2.2	2.2	2.2
RSEM-L5E-P2-EOP	2021-09-06	10.6	8.5	2330	1.9	1.9	1.9
RSEM-L5E-P2-EOP	2021-09-07	19.4	8.6	2330	1.9	1.9	1.9
RSEM-L5E-P2-EOP	2021-09-08	17.4	8.5	2300	1.9	1.9	1.9
RSEM-L5E-P2-EOP	2021-09-09	16.2	8.6	2270	2.1	2.1	2.1
RSEM-L5E-P2-EOP	2021-09-10	15.4	8.5	2290	2	2	2
RSEM-L5E-P2-EOP	2021-09-11	18.2	8.5	2290	3	3	3
RSEM-L5E-P2-EOP	2021-09-12	15.3	8.6	2260	2.1	2.1	2.1
RSEM-L5E-P2-EOP	2021-09-13	12.1	8.6	2250	2	2	2
RSEM-L5E-P2-EOP	2021-09-14	14.8	7.9	2250	3.7	3.8	3.7
RSEM-L5E-P2-EOP	2021-09-15	14.8	8.5	2430	3.4	3.4	3.4
RSEM-L5E-P2-EOP	2021-09-16	14.5	8.6	2520	3.7	3.7	3.7
RSEM-L5E-P2-EOP	2021-09-17	13.2	8.7	2660	4	4	4
RSEM-L5E-P2-EOP	2021-09-18	13.2	8.5	2740	5.9	5.9	5.9
RSEM-L5E-P2-EOP	2021-09-19	13.1	8.5	2810	3.6	3.6	3.6
RSEM-L5E-P2-EOP	2021-09-20	14.5	8.5	2800	2.6	2.6	2.6
RSEM-L5E-P2-EOP	2021-09-22	14.7	8.6	2850	3.7	3.7	3.7
RSEM-L5E-P2-EOP	2021-09-23	13.8	8.7	2920	3	3	3
RSEM-L5E-P2-EOP	2021-09-24	13.4	8.8	2960	3.6	3.6	3.6
RSEM-L5E-P2-EOP	2021-09-25	14.5	8.8	2960	4.7	4.7	4.7
RSEM-L5E-P2-SP	2021-03-10	2.5	8.4	1060	31.2	31.2	31.2
RSEM-L5E-P2-SP	2021-03-19	0.9	8.2	1022	27.5	27.4	27.5
RSEM-L5E-P2-SP	2021-03-20	1.9	8	798	20.9	21	20.9
RSEM-L5E-P2-SP	2021-03-26	3.8	8.4	680	2343	2296	2343
RSEM-L5E-P2-SP	2021-03-27	4.2	8.2	713	36.5	36.4	36.5
RSEM-L5E-P2-SP	2021-03-28	0.6	7.4	769	15	15.1	15
RSEM-L5E-P2-SP	2021-03-30	3.9	8	730	19.8	19.7	19.8
RSEM-L5E-P2-SP	2021-04-02	3.2	7.8	694	36.8	37	36.8
RSEM-L5E-P2-SP	2021-04-05	7.1	7.9	640	11.8	11.9	11.8
RSEM-L5E-P2-SP	2021-04-08	4.2	7.9	682	11.2	11	11.2
RSEM-L5E-P2-SP	2021-04-09	2.9	8	709	8.3	8.3	8.3
RSEM-L5E-P2-SP	2021-04-10	3.1	8.3	758	13.1	13	13.1
RSEM-L5E-P2-SP	2021-04-13	7	8.2	650	7.9	8	7.9
RSEM-L5E-P2-SP	2021-04-28	8	8.2	701	2	2	2
RSEM-L5E-P2-SP	2021-04-29	7.9	8.4	778	3.5	3.4	3.5
RSEM-L5E-P2-SP	2021-04-30	10.9	8.3	803	7	6.8	7
RSEM-L5E-P2-SP	2021-05-01	11.9	8.4	798	2.9	2.9	2.9
RSEM-L5E-P2-SP	2021-05-02	10.7	8.4	823	3.6	3.6	3.6
RSEM-L5E-P2-SP	2021-05-03	11.4	8.7	820	2.8	2.7	2.8
RSEM-L5E-P2-SP	2021-05-04	14.8	8.1	779	2.8	2.8	2.8
RSEM-L5E-P2-SP	2021-05-05	16	8.1	766	2.9	2.9	2.9
RSEM-L5E-P2-SP	2021-05-06	14.4	8.2	777	3.7	3.7	3.7
RSEM-L5E-P2-SP	2021-05-07	13.6	8.3	774	9.1	9.1	9.1
RSEM-L5E-P2-SP	2021-05-08	14.2	8.1	789	4.3	4.3	4.3
RSEM-L5E-P2-SP	2021-05-09	14.3	8.2	769	3	3	3
RSEM-L5E-P2-SP	2021-05-11	16	8.4	836	1.2	1.1	1.2
RSEM-L5E-P2-SP	2021-05-12	16.8	8.4	828	1.6	1.6	1.6
RSEM-L5E-P2-SP	2021-05-13	18.8	8.2	767	1.2	1.2	1.2
RSEM-L5E-P2-SP	2021-05-14	17	8.4	843	1.2	1.2	1.2
RSEM-L5E-P2-SP	2021-05-15	14.6	8.4	851	1.1	1.1	1.1
RSEM-L5E-P2-SP	2021-05-16	14.8	8.5	868	1	0.8	1
RSEM-L5E-P2-SP	2021-05-17	15.2	8.3	903	0.9	0.8	0.9
RSEM-L5E-P2-SP	2021-05-18	13.2	8.4	924	3.8	3.8	3.8
RSEM-L5E-P2-SP	2021-05-19	16.6	8.4	959	1.9	1.8	1.9
RSEM-L5E-P2-SP	2021-05-20	18.9	8.3	883	1.7	1.4	1.7
RSEM-L5E-P2-SP	2021-05-21	17.7	8.4	961	1.8	1.8	1.8
RSEM-L5E-P2-SP	2021-05-22	18	8.3	956	3.7	3.8	3.7
RSEM-L5E-P2-SP	2021-05-23	16.2	8.4	946	1	0.9	1
RSEM-L5E-P2-SP	2021-05-24	19.2	8	872	4.1	4	4.1
RSEM-L5E-P2-SP	2021-05-25	13.7	8.2	877	2	1.9	2
RSEM-L5E-P2-SP	2021-05-26	13.6	8.2	882	3.5	3.5	3.5
RSEM-L5E-P2-SP	2021-05-27	14.5	8.4	862	5.6	5.7	5.6
RSEM-L5E-P2-SP	2021-05-29	18	8.1	899	7.5	7.5	7.5
RSEM-L5E-P2-SP	2021-06-01	20.3	8.3	997	1.4	1.4	1.4
RSEM-L5E-P2-SP	2021-06-02	20	8.2	1001	1.1	1	1.1
RSEM-L5E-P2-SP	2021-06-03	21.1	8.2	1001	6.6	6.9	6.6
RSEM-L5E-P2-SP	2021-06-05	20.1	8.5	933	2.1	2.1	2.1
RSEM-L5E-P2-SP	2021-06-06	18.3	8.4	1047	1.6	1.6	1.6
RSEM-L5E-P2-SP	2021-06-07	18.7	8.5	972	1.8	1.8	1.8
RSEM-L5E-P2-SP	2021-06-08	18.7	8.5	1128	2.3	2.3	2.3
RSEM-L5E-P2-SP	2021-06-09	17.5	8.3	1160	1.2	1.2	1.2
RSEM-L5E-P2-SP	2021-06-10	18	8.1	1132	2.2	2.3	2.2
RSEM-L5E-P2-SP	2021-06-11	10.2	8.2	1281	1	1	1
RSEM-L5E-P2-SP	2021-06-12	20.6	8.3	1349	3.6	3.6	3.6
RSEM-L5E-P2-SP	2021-06-13	18	8.3	1372	2.7	2.7	2.7
RSEM-L5E-P2-SP	2021-06-14	18.9	8.1	1289	2.3	2.3	2.3
RSEM-L5E-P2-SP	2021-06-15	18.8	8.3	1310	2.6	2.5	2.6
RSEM-L5E-P2-SP	2021-06-16	15.2	8.5	1361	4.6	4.7	4.6
RSEM-L5E-P2-SP	2021-06-17	17.6	8.5	1385	3.9	3.9	3.9
RSEM-L5E-P2-SP	2021-06-18	21	8.6	1355	4	4	4
RSEM-L5E-P2-SP	2021-06-19	21	8.5	1333	4.4	4.4	4.4
RSEM-L5E-P2-SP	2021-06-20	22.3	8.5	1369	4.2	4.2	4.2
RSEM-L5E-P2-SP	2021-06-22	21.1	8.4	1379	3	3	3
RSEM-L5E-P2-SP	2021-06-23	19.9	8.4	1408	5.1	5.1	5.1
RSEM-L5E-P2-SP	2021-06-24	20.8	8.6	1390	8.2	8.2	8.2
RSEM-L5E-P2-SP	2021-06-25	22.8	8.6	1397	3.8	3.9	3.8
RSEM-L5E-P2-SP	2021-06-26	25.8	8.5	1415	4.3	4.2	4.3
RSEM-L5E-P2-SP	2021-06-27	25.3	8.4	1417	3.3	3.3	3.3
RSEM-L5E-P2-SP	2021-06-28	26.8	8.4	1399	3.2	3.2	3.2
RSEM-L5E-P2-SP	2021-06-29	28.4	8.3	1433	3.3	3.3	3.3
RSEM-L5E-P2-SP	2021-07-03	21.4	8.5	1804	2.8	2.8	2.8
RSEM-L5E-P2-SP	2021-07-04	22.1	8.4	1854	2.9	3	2.9

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-L5E-P2-SP	2021-07-05	22	8.4	1867	3	3	3
RSEM-L5E-P2-SP	2021-07-06	28.2	8.5	1768	2.9	2.9	2.9
RSEM-L5E-P2-SP	2021-07-07	27.3	8.5	1786	3	3	3
RSEM-L5E-P2-SP	2021-07-08	27.4	8.5	2110	3	3	3
RSEM-L5E-P2-SP	2021-07-24	18.3	8.6	2630	9.9	9.9	9.9
RSEM-L5E-P2-SP	2021-07-25	19.4	8.6	2640	8.4	8.4	8.4
RSEM-L5E-P2-SP	2021-07-26	20.1	8.6	2620	7	7	7
RSEM-L5E-P2-SP	2021-07-27	23.1	8.6	2610	6.3	6.3	6.3
RSEM-L5E-P2-SP	2021-07-28	23.2	8.6	2620	6.8	6.8	6.8
RSEM-L5E-P2-SP	2021-07-29	24.5	8.6	2600	6.4	6.5	6.4
RSEM-L5E-P2-SP	2021-07-30	22.5	8.6	2610	8.5	8.5	8.5
RSEM-L5E-P2-SP	2021-07-31	23.6	8.6	2590	5.7	5.7	5.7
RSEM-L5E-P2-SP	2021-08-01	23.9	8.6	2600	5.1	5.1	5.1
RSEM-L5E-P2-SP	2021-08-02	20	8.5	2640	3.3	3.3	3.3
RSEM-L5E-P2-SP	2021-08-03	25.9	8.4	2600	5.8	5.7	5.8
RSEM-L5E-P2-SP	2021-08-04	22.9	8.4	2640	6.7	6.7	6.7
RSEM-L5E-P2-SP	2021-08-05	24.9	8.5	2610	5	4.9	5
RSEM-L5E-P2-SP	2021-08-06	21	8.5	2590	7.7	7.7	7.7
RSEM-L5E-P2-SP	2021-08-07	19.1	8.7	2600	6.8	6.8	6.8
RSEM-L5E-P2-SP	2021-08-08	20.8	8.5	2600	5.8	5.7	5.8
RSEM-L5E-P2-SP	2021-08-09	19	8.6	2600	4.3	4.2	4.3
RSEM-L5E-P2-SP	2021-08-10	18.8	8.7	2570	4.1	4.1	4.1
RSEM-L5E-P2-SP	2021-08-11	22.8	8.5	2680	4.1	4.1	4.1
RSEM-L5E-P2-SP	2021-08-12	23.4	8.5	2260	3.9	3.9	3.9
RSEM-L5E-P2-SP	2021-08-13	20.9	8.7	2260	3.8	3.8	3.8
RSEM-L5E-P2-SP	2021-08-14	21.5	8.7	2270	4.2	4.2	4.2
RSEM-L5E-P2-SP	2021-08-15	22	8.7	2250	4.6	4.6	4.6
RSEM-L5E-P2-SP	2021-08-16	18.4	8.8	2260	4.1	4.1	4.1
RSEM-L5E-P2-SP	2021-08-17	21.5	8.8	2240	4.1	4.1	4.1
RSEM-L5E-P2-SP	2021-08-18	19.7	8.9	2260	3.6	3.6	3.6
RSEM-L5E-P2-SP	2021-08-19	20.6	8.7	2240	4	4	4
RSEM-L5E-P2-SP	2021-08-20	18.7	8.9	2430	3.7	3.7	3.7
RSEM-L5E-P2-SP	2021-08-21	18.3	8.2	2260	5.3	5.3	5.3
RSEM-L5E-P2-SP	2021-08-27	17.4	8.4	2050	4.5	4.5	4.5
RSEM-L5E-P2-SP	2021-08-28	17.8	8.4	2040	4.5	4.5	4.5
RSEM-L5E-P2-SP	2021-08-29	16.9	8.3	2130	4.6	4.6	4.6
RSEM-L5E-P2-SP	2021-08-30	17.4	8.3	2210	2	2	2
RSEM-L5E-P2-SP	2021-08-31	15.8	8.4	2270	2.5	2.5	2.5
RSEM-L5E-P2-SP	2021-09-01	15.6	8.5	2280	3.9	4	3.9
RSEM-L5E-P2-SP	2021-09-02	19.3	8.4	2250	2.1	2.1	2.1
RSEM-L5E-P2-SP	2021-09-03	17.5	8.4	2280	1.8	1.8	1.8
RSEM-L5E-P2-SP	2021-09-04	17	8.4	2310	1.7	1.7	1.7
RSEM-L5E-P2-SP	2021-09-21	15.1	8.6	2850	2.2	2.1	2.2
RSEM-L5E-P2-SP	2021-09-28	12.5	9	2710	5	5	5
RSEM-L5E-P2-SP	2021-10-06	6.7	8.9	2940	3.6	3.6	3.6
RSEM-L5E-P2-SP	2021-10-09	9	9.6	2730	3.2	3.3	3.2
RSEM-L5E-P2-SP	2021-10-11	6.4	10	2390	3.3	3.2	3.3
RSEM-L5E-P2-SP	2021-10-13	6.8	10.1	2570	4.8	4.7	4.8
RSEM-L5E-P2-SP	2021-10-16	6	10.4	2590	6.2	6.2	6.2
RSEM-L5E-P2-SP	2021-10-19	5.4	10.4	2480	6.5	6.5	6.5
RSEM-L5W-P2-EOP	2021-08-25	17.3	8.4	2900	4.9	5	4.9
RSEM-L5W-P2-EOP	2021-08-26	18.5	8.6	2950	4.8	4.8	4.8
RSEM-L5W-P2-EOP	2021-08-27	17.4	8.2	2950	4.3	4.3	4.3
RSEM-L5W-P2-EOP	2021-08-28	17.2	8	2960	4.6	4.5	4.6
RSEM-L5W-P2-EOP	2021-08-29	17.3	8	2940	5.7	5.6	5.7
RSEM-L5W-P2-EOP	2021-08-30	18.2	8.3	2970	2.6	2.6	2.6
RSEM-L5W-P2-EOP	2021-08-31	15.5	8.4	2980	2.6	2.6	2.6
RSEM-L5W-P2-EOP	2021-09-01	15.5	8.6	2970	3	3	3
RSEM-L5W-P2-EOP	2021-09-02	18.5	8.4	2950	2.9	2.9	2.9
RSEM-L5W-P2-EOP	2021-09-03	17.3	8.4	2950	1.9	1.9	1.9
RSEM-L5W-P2-EOP	2021-09-04	17.2	8.5	2960	2.2	2.2	2.2
RSEM-L5W-P2-EOP	2021-09-05	16.6	8.5	3000	2.6	2.5	2.6
RSEM-L5W-P2-EOP	2021-09-06	16.1	8.6	2990	2.3	2.3	2.3
RSEM-L5W-P2-SP	2021-04-05	3.1	7.9	795	8.9	8.9	8.9
RSEM-L5W-P2-SP	2021-04-08	2.9	7.7	1004	12.3	12	12.3
RSEM-L5W-P2-SP	2021-04-09	3.1	8.2	880	7.1	7.1	7.1
RSEM-L5W-P2-SP	2021-04-10	2.9	8.1	1065	16.5	17.1	16.5
RSEM-L5W-P2-SP	2021-04-13	9.2	8.2	1015	7.2	7.1	7.2
RSEM-L5W-P2-SP	2021-04-28	7.2	8.4	1693	5.3	5.3	5.3
RSEM-L5W-P2-SP	2021-04-29	7.7	8.6	1824	6.7	6.4	6.7
RSEM-L5W-P2-SP	2021-04-30	10.4	8.1	1713	9.3	9.1	9.3
RSEM-L5W-P2-SP	2021-05-01	12.4	8.6	1722	5.3	5	5.3
RSEM-L5W-P2-SP	2021-05-02	10.4	8.5	1758	5.2	5.1	5.2
RSEM-L5W-P2-SP	2021-05-03	11.1	8.9	1925	4.4	4.4	4.4
RSEM-L5W-P2-SP	2021-05-04	16.7	8.2	1694	6.2	6.2	6.2
RSEM-L5W-P2-SP	2021-05-05	16.8	8.3	1679	1.5	1.5	1.5
RSEM-L5W-P2-SP	2021-05-06	13.4	8.5	1950	3.9	3.9	3.9
RSEM-L5W-P2-SP	2021-05-07	13.3	8.6	1772	3.3	3.2	3.3
RSEM-L5W-P2-SP	2021-05-08	14.1	8.2	1723	2.8	2.8	2.8
RSEM-L5W-P2-SP	2021-05-09	13.4	8.5	1759	2.9	2.8	2.9
RSEM-L5W-P2-SP	2021-05-11	14.6	8.6	2240	2.1	2.2	2.1
RSEM-L5W-P2-SP	2021-05-12	15.5	8.6	2110	2.4	2.3	2.4
RSEM-L5W-P2-SP	2021-05-13	15.6	8.6	2270	2.5	2.4	2.5
RSEM-L5W-P2-SP	2021-05-14	18	8.5	2280	2.2	2.2	2.2
RSEM-L5W-P2-SP	2021-05-15	14.6	8.5	2400	3.8	3.8	3.8
RSEM-L5W-P2-SP	2021-05-16	14.5	8.4	2470	3	3.1	3
RSEM-L5W-P2-SP	2021-05-17	14.8	8.7	2530	4.7	4.7	4.7
RSEM-L5W-P2-SP	2021-05-18	12.4	8.5	2530	4.3	4.3	4.3
RSEM-L5W-P2-SP	2021-05-19	14.9	8.6	2580	5.6	5.7	5.6
RSEM-L5W-P2-SP	2021-05-20	17.6	8.5	2420	8.2	8.1	8.2
RSEM-L5W-P2-SP	2021-05-21	15	8.4	2590	6.4	6.6	6.4
RSEM-L5W-P2-SP	2021-05-22	17.7	8.5	2550	6.5	6.4	6.5
RSEM-L5W-P2-SP	2021-05-23	16.6	8.5	2490	6.1	5.9	6.1
RSEM-L5W-P2-SP	2021-05-24	17.9	8.5	2350	5	5	5
RSEM-L5W-P2-SP	2021-05-25	12.2	8.6	2210	4.9	4.8	4.9
RSEM-L5W-P2-SP	2021-05-26	14.3	8.6	2360	5.6	5.6	5.6
RSEM-L5W-P2-SP	2021-05-27	14.7	8.6	2380	7.8	7.8	7.8
RSEM-L5W-P2-SP	2021-05-29	16.4	8.4	2310	7.7	7.6	7.7
RSEM-L5W-P2-SP	2021-06-01	21	8.4	2730	15.6	15	15.6
RSEM-L5W-P2-SP	2021-06-02	20.1	8.3	2810	5.2	5.1	5.2
RSEM-L5W-P2-SP	2021-06-03	20.8	8.4	2850	5.7	5.8	5.7
RSEM-L5W-P2-SP	2021-06-05	19.7	8.6	2650	6.3	6.5	6.3
RSEM-L5W-P2-SP	2021-06-06	18.2	8.6	2940	6.5	6.4	6.5
RSEM-L5W-P2-SP	2021-06-07	18.4	8.6	2930	5.7	5.8	5.7
RSEM-L5W-P2-SP	2021-06-08	17.7	8.6	2990	6.2	6.2	6.2
RSEM-L5W-P2-SP	2021-06-09	16.7	8.4	2970	4.2	4.2	4.2
RSEM-L5W-P2-SP	2021-06-10	17.2	8.4	2760	5	4.9	5
RSEM-L5W-P2-SP	2021-06-11	17.8	8.4	3020	3.9	3.9	3.9
RSEM-L5W-P2-SP	2021-06-12	19.7	8.4	3060	4.3	4.3	4.3
RSEM-L5W-P2-SP	2021-06-13	17.8	8.2	3040	4.3	4.4	4.3

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-L5W-P2-SP	2021-06-14	17.8	8.4	2850	4.2	4.3	4.2
RSEM-L5W-P2-SP	2021-06-15	18.8	8.5	2840	5.1	5.1	5.1
RSEM-L5W-P2-SP	2021-06-16	15.2	8.7	2800	5.7	5.7	5.7
RSEM-L5W-P2-SP	2021-06-17	16.9	8.7	2810	6.5	6.5	6.5
RSEM-L5W-P2-SP	2021-06-18	19.9	8.6	2820	6.1	6.1	6.1
RSEM-L5W-P2-SP	2021-06-19	21.7	8.5	2750	7.7	7.7	7.7
RSEM-L5W-P2-SP	2021-06-20	23	8.6	2830	5.4	5.4	5.4
RSEM-L5W-P2-SP	2021-06-22	21	8.4	3050	4.7	4.9	4.7
RSEM-L5W-P2-SP	2021-06-23	20.4	8.5	2770	10	9.9	10
RSEM-L5W-P2-SP	2021-06-24	20.4	8.6	2980	6.9	6.8	6.9
RSEM-L5W-P2-SP	2021-06-25	23.1	8.6	2770	6.8	6.8	6.8
RSEM-L5W-P2-SP	2021-06-26	25.7	8.6	2640	4.8	4.8	4.8
RSEM-L5W-P2-SP	2021-06-27	24.3	8.4	2940	3.7	3.6	3.7
RSEM-L5W-P2-SP	2021-06-28	26.8	8.3	2620	3.9	3.8	3.9
RSEM-L5W-P2-SP	2021-06-29	28	8.2	2710	3.6	3.6	3.6
RSEM-L5W-P2-SP	2021-06-30	29.2	8.3	2040	3	2.9	3
RSEM-L5W-P2-SP	2021-07-01	24.5	8.3	2180	4.4	4.3	4.4
RSEM-L5W-P2-SP	2021-07-02	26.5	8.2	2650	3.4	3.4	3.4
RSEM-L5W-P2-SP	2021-07-03	21.3	8.6	2470	4.6	4.6	4.6
RSEM-L5W-P2-SP	2021-07-04	22.3	8.4	2580	5.8	5.6	5.8
RSEM-L5W-P2-SP	2021-07-05	21.5	8.6	2740	7.1	7.2	7.1
RSEM-L5W-P2-SP	2021-07-06	26.2	8.7	2740	4.9	4.9	4.9
RSEM-L5W-P2-SP	2021-07-07	27.9	8.7	2780	5.1	5.1	5.1
RSEM-L5W-P2-SP	2021-07-08	27.5	8.5	2910	2.5	2.5	2.5
RSEM-L5W-P2-SP	2021-07-09	24.4	8.5	2780	5	5	5
RSEM-L5W-P2-SP	2021-07-10	21.7	8.6	2930	3.6	3.6	3.6
RSEM-L5W-P2-SP	2021-07-11	22.8	8.5	2710	3.7	3.7	3.7
RSEM-L5W-P2-SP	2021-07-12	18.8	8.6	2820	3.6	3.6	3.6
RSEM-L5W-P2-SP	2021-07-13	22.8	8.7	3140	3.7	3.6	3.7
RSEM-L5W-P2-SP	2021-07-14	23.5	8.6	3170	3.4	3.5	3.4
RSEM-L5W-P2-SP	2021-07-15	23.3	8.6	2900	2.6	2.6	2.6
RSEM-L5W-P2-SP	2021-07-16	20	8.6	3140	2.6	2.6	2.6
RSEM-L5W-P2-SP	2021-07-17	17.7	8.6	2720	2.6	2.6	2.6
RSEM-L5W-P2-SP	2021-07-18	18.2	8.7	3130	2.7	2.7	2.7
RSEM-L5W-P2-SP	2021-07-19	18.3	8.6	2880	2.9	2.9	2.9
RSEM-L5W-P2-SP	2021-07-20	18.3	8.4	3080	3.6	3.6	3.6
RSEM-L5W-P2-SP	2021-07-21	18.3	8.4	2870	3.6	3.6	3.6
RSEM-L5W-P2-SP	2021-07-22	18.6	8.4	3040	14.2	14	14.2
RSEM-L5W-P2-SP	2021-07-23	19.5	8.4	2750	5	5	5
RSEM-L5W-P2-SP	2021-07-24	18.9	8.5	2890	5.7	5.7	5.7
RSEM-L5W-P2-SP	2021-07-25	19.9	8.5	2830	4.8	4.8	4.8
RSEM-L5W-P2-SP	2021-07-26	20.3	8.5	2850	4.4	4.3	4.4
RSEM-L5W-P2-SP	2021-07-27	22.1	8.6	2900	3.7	3.7	3.7
RSEM-L5W-P2-SP	2021-07-28	22.9	8.6	2950	4.2	4.2	4.2
RSEM-L5W-P2-SP	2021-07-29	25.1	8.6	2960	3.7	3.7	3.7
RSEM-L5W-P2-SP	2021-07-30	22.2	8.6	2980	4.8	4.8	4.8
RSEM-L5W-P2-SP	2021-07-31	26.3	8.6	3020	3.5	3.5	3.5
RSEM-L5W-P2-SP	2021-08-01	23.5	8.6	3040	3.1	3.1	3.1
RSEM-L5W-P2-SP	2021-08-02	21.7	8.6	3040	3	3	3
RSEM-L5W-P2-SP	2021-08-03	24.9	8.5	3110	2.9	2.9	2.9
RSEM-L5W-P2-SP	2021-08-04	23.2	8.5	3130	3.2	3.1	3.2
RSEM-L5W-P2-SP	2021-08-05	25	8.4	3140	3.2	3.2	3.2
RSEM-L5W-P2-SP	2021-08-06	21.2	8.4	3140	6.3	6.3	6.3
RSEM-L5W-P2-SP	2021-08-07	18.9	8.7	3160	3.5	3.5	3.5
RSEM-L5W-P2-SP	2021-08-08	19.5	8.7	3170	3.1	3.1	3.1
RSEM-L5W-P2-SP	2021-08-09	18.6	8.6	3170	2.9	2.9	2.9
RSEM-L5W-P2-SP	2021-08-10	18.8	8.6	3200	3	3	3
RSEM-L5W-P2-SP	2021-08-11	21.6	8.6	3390	2.8	2.8	2.8
RSEM-L5W-P2-SP	2021-08-12	23.6	8.6	2940	3	3	3
RSEM-L5W-P2-SP	2021-08-13	21.4	8.6	2830	2.5	2.5	2.5
RSEM-L5W-P2-SP	2021-08-14	23.7	8.6	2900	3	3	3
RSEM-L5W-P2-SP	2021-08-15	21.6	8.6	2900	2.6	2.6	2.6
RSEM-L5W-P2-SP	2021-08-16	19.7	8.7	2930	3	3	3
RSEM-L5W-P2-SP	2021-08-17	21.2	8.7	2950	2.7	2.7	2.7
RSEM-L5W-P2-SP	2021-08-18	19.4	8.7	2790	2.5	2.5	2.5
RSEM-L5W-P2-SP	2021-08-19	19.7	8.7	2970	2.3	2.3	2.3
RSEM-L5W-P2-SP	2021-08-20	18.5	8.8	3260	2.6	2.6	2.6
RSEM-L5W-P2-SP	2021-08-21	18.2	8.2	3020	2.4	2.4	2.4
RSEM-L5W-P2-SP	2021-08-22	16	8.8	2930	4.9	4.9	4.9
RSEM-L5W-P2-SP	2021-08-23	15.7	8.6	2810	5	5	5
RSEM-L5W-P2-SP	2021-08-24	17.5	8.5	2870	6.2	6.3	6.2
RSEM-L5W-P2-SP	2021-09-07	18.8	8.6	3000	2.3	2.3	2.3
RSEM-L5W-P2-SP	2021-09-08	17.2	8.6	2980	1.9	1.9	1.9
RSEM-L5W-P2-SP	2021-09-09	18	8.6	2960	2.4	2.4	2.4
RSEM-L5W-P2-SP	2021-09-10	15.5	8.6	3010	1.9	1.9	1.9
RSEM-L5W-P2-SP	2021-09-11	18.1	8.5	3030	2	2	2
RSEM-L5W-P2-SP	2021-09-12	16.2	8.5	3050	2.2	2.2	2.2
RSEM-L5W-P2-SP	2021-09-13	13.2	8.6	2980	2.5	2.5	2.5
RSEM-L5W-P2-SP	2021-09-14	14.8	8.1	3260	3.1	3	3.1
RSEM-L5W-P2-SP	2021-09-15	13.7	8.7	2990	3.9	3.9	3.9
RSEM-L5W-P2-SP	2021-09-16	13.7	8.4	3050	5.7	5.7	5.7
RSEM-L5W-P2-SP	2021-09-17	12.6	8.4	3010	3.3	3	3.3
RSEM-L5W-P2-SP	2021-09-20	13.6	8.2	3030	2.1	2.1	2.1
RSEM-L5W-P2-SP	2021-09-21	14.2	8.3	3040	3.2	3.2	3.2
RSEM-L5W-P2-SP	2021-10-06	6.8	8.3	3600	3.3	3.3	3.3
RSEM-L5W-P2-SP	2021-10-09	9.8	8.2	3060	3	3	3
RSEM-L5W-P2-SP	2021-10-11	5.1	8.3	2730	3.2	3.2	3.2
RSEM-L5W-P2-SP	2021-10-13	6.9	8.1	3780	6	6	6
RSEM-L5W-P2-SP	2021-10-16	5.5	8.4	3110	4.4	4.4	4.4
RSEM-L6-EOP	2021-04-30	10.9	8.4	799	44.1	43.7	44.1
RSEM-L6-SP	2021-03-20	2.2	8.3	456	41.3	41.2	41.3
RSEM-L6-SP	2021-04-01	4.3	8	470	22.8	22.6	22.8
RSEM-L6-SP	2021-04-03	1.4	8.4	522	25.1	25	25.1
RSEM-L6-SP	2021-04-05	1.9	8	523	13.9	13.9	13.9
RSEM-L6-SP	2021-04-07	2.6	8.5	667	7.3	7.1	7.3
RSEM-L6-SP	2021-04-08	1.2	8.4	636	11.2	11.3	11.2
RSEM-L6-SP	2021-04-10	2.7	8.4	662	7.7	7.6	7.7
RSEM-L6-SP	2021-04-14	15.1	8	602	14	14	14
RSEM-L6-SP	2021-04-28	4.4	7.5	776	2.1	2	2.1
RSEM-L6-SP	2021-04-29	5.8	8.1	781	2	2	2
RSEM-L6-SP	2021-06-24	22.7	9.6	1996	3.9	3.9	3.9
RSEM-L6-SP	2021-06-26	30.9	9.4	2090	5.1	5.2	5.1
RSEM-L6-SP	2021-07-01	24.9	9.2	2230	10	10	10
RSEM-L6-SP	2021-07-14	25.8	9.8	2930	2.4	2.4	2.4
RSEM-L6-SP	2021-07-17	15.7	9.5	2920	1.4	1.4	1.4
RSEM-L6-SP	2021-07-24	21.7	8.8	1793	2.9	2.9	2.9
RSEM-L6-SP	2021-08-03	21.4	8.7	1944	3.6	3.8	3.6
RSEM-L6-SP	2021-08-06	22.9	8.6	1907	9.2	9.1	9.2
RSEM-L6-SP	2021-08-07	17.4	8.3	1845	4.9	4.9	4.9
RSEM-L6-SP	2021-08-24	18.1	8.4	1137	7.9	7.8	7.9

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-L6-SP	2021-08-25	20.6	8.3	1070	5.6	5.6	5.6
RSEM-L6-SP	2021-08-26	19.5	8.5	1066	4.7	4.6	4.7
RSEM-L6-SP	2021-08-27	16.8	8.3	1071	3.5	3.5	3.5
RSEM-L6-SP	2021-08-28	17.2	8.2	1158	3.8	3.7	3.8
RSEM-L6-SP	2021-08-29	16.9	8.4	1159	4.4	4.3	4.4
RSEM-L6-SP	2021-08-30	15.1	8.5	1191	1.7	1.7	1.7
RSEM-L6-SP	2021-08-31	16.1	8.6	1152	2.7	2.7	2.7
RSEM-L6-SP	2021-09-01	16	8.4	1167	1.5	1.6	1.5
RSEM-L6-SP	2021-09-03	19.3	8.8	1153	2.4	2.4	2.4
RSEM-L6-SP	2021-09-05	17	9	1168	3.2	3.2	3.2
RSEM-L6-SP	2021-09-12	17.8	8.6	1089	2	2	2
RSEM-L6-SP	2021-09-15	12.3	8.5	1207	2.3	2.3	2.3
RSEM-L6-SP	2021-09-16	12.5	8.4	1191	2.4	2.3	2.4
RSEM-L6-SP	2021-09-18	11	8.5	1199	2.8	2.8	2.8
RSEM-L6-SP	2021-09-21	13.3	8.2	1197	1.8	1.8	1.8
RSEM-L6-SP	2021-09-22	12.6	8.1	1203	2.2	2.2	2.2
RSEM-L6-SP	2021-09-24	13.2	8.6	1202	1.7	1.7	1.7
RSEM-L6-SP	2021-09-25	13.4	8.3	1210	1.6	1.6	1.6
RSEM-L6-SP	2021-09-26	13.1	8.3	1208	1.4	1.4	1.4
RSEM-L6-SP	2021-09-29	12	8.2	1118	1.9	1.9	1.9
RSEM-L6-SP	2021-10-03	10	7.9	1143	2	2	2
RSEM-L6-SP	2021-10-05	7	8.2	1263	1.8	1.8	1.8
RSEM-L6-SP	2021-10-07	7	8.1	1241	2.1	2.1	2.1
RSEM-L6-SP	2021-10-09	8.7	8.3	1132	1.8	1.8	1.8
RSEM-L6-SP	2021-10-11	7.6	8.4	1007	1.9	1.8	1.9
RSEM-L6-SP	2021-10-14	6.7	8.6	1197	2.1	2.1	2.1
RSEM-L6-SP	2021-10-17	6.4	7.9	1287	2.8	2.8	2.8
RSEM-L6-SP	2021-10-23	5	8.8	1156	3.5	3.5	3.5
RSEM-L6-SP	2021-10-26	5.4	7.6	1260	3	3	3
RSEM-L6-SP	2021-10-27	7.4	7.9	1190	2.5	2.5	2.5
RSEM-L6-SP	2021-10-29	2.3	8.3	1414	3.9	3.9	3.9
RSEM-L6-SP	2021-10-30	1.9	8.2	1436	4	4	4
RSEM-L6-SP	2021-10-31	2.7	8.3	1518	4.3	4.3	4.3
RSEM-L6-SP	2021-11-01	3.1	8.1	1495	3.6	3.6	3.6
RSEM-L6-SP	2021-11-02	2.6	8	1444	3.7	3.7	3.7
RSEM-L6-SP	2021-11-03	3.2	8.1	1562	3.8	3.7	3.8
RSEM-L6-SP	2021-11-04	3.8	8.3	1436	7.8	7.7	7.8
RSEM-L6-SP	2021-11-05	2	8	1158	6.4	6.4	6.4
RSEM-L6-SP	2021-11-06	1.2	8.6	1204	6.6	6.6	6.6
RSEM-L6-SP	2021-11-07	1.6	8.6	1395	9.1	9.1	9.1
RSEM-L6-SP	2021-11-08	1.6	8.2	1338	11.2	11.2	11.2
RSEM-L6-SP	2021-11-09	4	8.3	1367	6.5	6.5	6.5
RSEM-R5a-A	2021-04-28	5.4	8.2	560	6	5.9	6
RSEM-R5a-B	2021-04-28	6	8.3	770	4.9	4.9	4.9
RSEM-R5A-P2-A-SP	2021-03-28	1.7	7.3	158.6	86.1	85.9	86.1
RSEM-R5A-P2-A-SP	2021-03-31	3.7	8	162	23.9	23.8	23.9
RSEM-R5A-P2-A-SP	2021-04-02	4.3	8.3	252	16.6	16.6	16.6
RSEM-R5A-P2-A-SP	2021-04-04	6.9	8.6	268	14.3	14.2	14.3
RSEM-R5A-P2-A-SP	2021-04-06	3.6	8.6	298	20.6	20.5	20.6
RSEM-R5A-P2-A-SP	2021-04-08	5.7	8	349	23.1	23.4	23.1
RSEM-R5A-P2-A-SP	2021-04-10	3.6	8.2	351	20.3	20.2	20.3
RSEM-R5A-P2-A-SP	2021-05-01	12.2	8.4	609	7.9	7.6	7.9
RSEM-R5A-P2-A-SP	2021-05-04	13.9	7.6	600	5.8	5.9	5.8
RSEM-R5A-P2-A-SP	2021-05-05	20	8	609	5.5	5.5	5.5
RSEM-R5A-P2-A-SP	2021-05-06	18.2	8.1	595	7	6.9	7
RSEM-R5A-P2-A-SP	2021-05-11	16.9	8.5	657	4.7	4.8	4.7
RSEM-R5A-P2-A-SP	2021-05-18	11.7	8.3	762	101.9	101.5	101.9
RSEM-R5A-P2-A-SP	2021-05-19	17.6	8.4	766	24.4	24.3	24.4
RSEM-R5A-P2-A-SP	2021-06-01	23.2	8.6	1164	4.1	3.9	4.1
RSEM-R5A-P2-A-SP	2021-06-09	20	8.4	1196	9.8	9.8	9.8
RSEM-R5A-P2-A-SP	2021-06-10	21.6	8.4	1186	21	20.8	21
RSEM-R5A-P2-A-SP	2021-06-11	21	8.3	1194	14.6	14.6	14.6
RSEM-R5A-P2-A-SP	2021-06-13	17.5	8	1262	20.1	20.1	20.1
RSEM-R5A-P2-A-SP	2021-06-18	21.4	8.3	1134	23	23.1	23
RSEM-R5A-P2-A-SP	2021-06-22	22.8	8.3	1352	46.7	47	46.7
RSEM-R5A-P2-A-SP	2021-06-24	22.5	8.7	1446	40.4	40.5	40.4
RSEM-R5A-P2-A-SP	2021-06-26	27.5	8.6	1524	56.4	56.7	56.4
RSEM-R5A-P2-A-SP	2021-07-24	20.7	8.7	1732	2.6	2.7	2.6
RSEM-R5A-P2-A-SP	2021-08-06	24	8.1	1952	26.6	26.8	26.6
RSEM-R5A-P2-A-SP	2021-08-08	23.9	8.5	1824	4.4	4.4	4.4
RSEM-R5A-P2-A-SP	2021-08-24	18.7	8.2	1467	9.1	9.2	9.1
RSEM-R5A-P2-B-SP	2021-03-31	0.8	8.1	65	60.8	61.4	60.8
RSEM-R5A-P2-B-SP	2021-04-02	2.7	8	201	20.2	20.7	20.2
RSEM-R5A-P2-B-SP	2021-04-04	7	8.5	260	7.5	7.6	7.5
RSEM-R5A-P2-B-SP	2021-04-06	3.5	8.3	282	4.8	4.7	4.8
RSEM-R5A-P2-B-SP	2021-04-08	4.7	8	393	14	14.1	14
RSEM-R5A-P2-B-SP	2021-04-10	2.4	8.2	413	14.9	14.8	14.9
RSEM-R5A-P2-B-SP	2021-05-01	13.2	8.4	768	30.1	30.9	30.1
RSEM-R5A-P2-B-SP	2021-05-04	12.2	8	598	17.4	17.3	17.4
RSEM-R5A-P2-B-SP	2021-05-05	18.9	8.4	575	11.9	11.9	11.9
RSEM-R5A-P2-B-SP	2021-05-06	14.7	8.2	586	18.6	18.9	18.6
RSEM-R5A-P2-B-SP	2021-05-11	15	8.2	624	32.7	32.8	32.7
RSEM-R5A-P2-B-SP	2021-05-18	11.1	8.5	820	81.3	83	81.3
RSEM-R5A-P2-B-SP	2021-05-19	15.1	8.6	838	36.5	37.4	36.5
RSEM-R5A-P2-B-SP	2021-06-01	23.6	8.6	1224	4.6	4.9	4.6
RSEM-R5A-P2-B-SP	2021-06-09	19.1	8.4	1053	9.4	9.4	9.4
RSEM-R5A-P2-B-SP	2021-06-10	21.9	8.4	1083	8.9	8.7	8.9
RSEM-R5A-P2-B-SP	2021-06-11	20.9	8.4	1141	9.4	9.2	9.4
RSEM-R5A-P2-B-SP	2021-06-13	17.5	8.1	1337	13	13	13
RSEM-R5A-P2-B-SP	2021-06-18	20.9	8.4	1253	14.9	15	14.9
RSEM-R5A-P2-B-SP	2021-06-22	24	8.4	1547	59.2	58	59.2
RSEM-R5A-P2-B-SP	2021-06-24	23.4	8.7	1669	65.1	66	65.1
RSEM-R5A-P2-B-SP	2021-06-26	28.6	8.6	1799	68.2	68.8	68.2
RSEM-R5A-P2-B-SP	2021-07-24	20.7	8.9	2330	4	3.8	4
RSEM-R5A-P2-B-SP	2021-08-06	23.8	8.1	1956	27	27.1	27
RSEM-R5A-P2-B-SP	2021-08-08	23.8	8.5	1931	7.8	7.8	7.8
RSEM-R5A-P2-B-SP	2021-08-24	18.1	8.3	1760	8.8	8.8	8.8
RSEM-R5A-P2-C-SP	2021-03-31	2.3	7.8	119	93.2	94.1	93.2
RSEM-R5A-P2-C-SP	2021-04-02	3.4	8.3	152	94	94	94
RSEM-R5A-P2-C-SP	2021-04-04	5.9	8.4	144	108.3	109.2	108.3
RSEM-R5A-P2-C-SP	2021-04-06	2.3	8.4	170	100.6	100.4	100.6
RSEM-R5A-P2-C-SP	2021-04-08	5.3	8.1	185	95.2	95.7	95.2
RSEM-R5A-P2-C-SP	2021-04-10	2.6	8.2	216	90	90	90
RSEM-R5A-P2-C-SP	2021-05-11	17.9	8.4	637	22.5	22.8	22.5
RSEM-R5A-P2-C-SP	2021-05-13	19	8.2	654	32.3	32.6	32.3
RSEM-R5A-P2-C-SP	2021-05-14	10.6	8.1	619	46	46	46
RSEM-R5A-P2-C-SP	2021-05-15	15.9	8.3	677	29.2	29.2	29.2
RSEM-R5A-P2-C-SP	2021-05-17	15	8.5	681	13.9	14	13.9
RSEM-R5A-P2-C-SP	2021-05-18	12.9	8.5	669	14.4	14.4	14.4
RSEM-R5A-P2-C-SP	2021-05-19	18.1	8.5	623	19	18.9	19

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R5A-P2-C-SP	2021-05-21	19.9	8.7	728	24.2	23.9	24.2
RSEM-R5A-P2-C-SP	2021-05-22	18.1	8.9	734	16.6	16.4	16.6
RSEM-R5A-P2-C-SP	2021-05-23	17.3	8.9	754	27.7	27.4	27.7
RSEM-R5A-P2-C-SP	2021-05-24	19.2	8.8	686	13.2	13.3	13.2
RSEM-R5A-P2-C-SP	2021-05-25	11.7	8.7	685	18.5	18.5	18.5
RSEM-R5A-P2-C-SP	2021-05-26	15.3	8.8	667	21.3	21.6	21.3
RSEM-R5A-P2-C-SP	2021-05-29	21.5	8.3	649	15.6	15.6	15.6
RSEM-R5A-P2-C-SP	2021-05-30	20.6	8.4	656	14.3	14.1	14.3
RSEM-R5A-P2-C-SP	2021-06-01	21.5	8.7	757	8.7	8.6	8.7
RSEM-R5A-P2-C-SP	2021-06-03	22.8	8.3	978	29.3	29.4	29.3
RSEM-R5A-P2-C-SP	2021-06-04	21.6	8.6	981	31.2	31.7	31.2
RSEM-R5A-P2-C-SP	2021-06-05	20	8.6	992	32.1	32.1	32.1
RSEM-R5A-P2-C-SP	2021-06-06	19.1	8.6	999	35	35.5	35
RSEM-R5A-P2-C-SP	2021-06-07	17.1	8.7	993	31.6	31.8	31.6
RSEM-R5A-P2-C-SP	2021-06-08	20.7	8.6	998	32.7	32.9	32.7
RSEM-R5A-P2-C-SP	2021-06-09	20.4	8.6	1005	34.5	34.8	34.5
RSEM-R5A-P2-C-SP	2021-06-10	19.2	8.3	1016	41.1	41.2	41.1
RSEM-R5A-P2-C-SP	2021-06-11	19	8.2	1018	65.3	65.3	65.3
RSEM-R5A-P2-C-SP	2021-06-13	18.5	8.2	1031	70.2	69.5	70.2
RSEM-R5A-P2-C-SP	2021-06-15	15.8	7.6	1033	73.6	73.4	73.6
RSEM-R5A-P2-C-SP	2021-06-18	21.7	8.5	1083	37.1	37.1	37.1
RSEM-R5A-P2-C-SP	2021-08-06	24.9	8.4	2050	20.1	19.9	20.1
RSEM-R5A-P2-C-SP	2021-08-24	20	8.2	1302	7.4	7.4	7.4
RSEM-R5A-P2-D-SP	2021-03-31	2	8	172	100.4	99.9	100.4
RSEM-R5A-P2-D-SP	2021-04-02	3.4	7.8	320	38.5	38.8	38.5
RSEM-R5A-P2-D-SP	2021-04-04	6.1	8.3	369	41.7	42.4	41.7
RSEM-R5A-P2-D-SP	2021-04-06	2.3	8.3	386	40.6	41.9	40.6
RSEM-R5A-P2-D-SP	2021-04-08	4.7	8	386	51.9	51.9	51.9
RSEM-R5A-P2-D-SP	2021-04-10	2.9	8.2	393	65.2	64.5	65.2
RSEM-R5A-P2-D-SP	2021-05-09	16	8.2	588	9.3	9.2	9.3
RSEM-R5A-P2-D-SP	2021-05-11	15.7	8.3	633	8.4	8.2	8.4
RSEM-R5A-P2-D-SP	2021-05-13	16.2	8.4	642	6.6	6.5	6.6
RSEM-R5A-P2-D-SP	2021-05-14	17.5	8.3	597	5.2	5.3	5.2
RSEM-R5A-P2-D-SP	2021-05-15	16	8.4	645	5.8	5.9	5.8
RSEM-R5A-P2-D-SP	2021-05-17	16	8.6	8640	6.4	6.4	6.4
RSEM-R5A-P2-D-SP	2021-05-18	13.1	8.6	631	7.2	7.2	7.2
RSEM-R5A-P2-D-SP	2021-05-19	16.7	8.2	595	8.6	8.5	8.6
RSEM-R5A-P2-D-SP	2021-05-21	18.7	8.6	681	15.4	15.5	15.4
RSEM-R5A-P2-D-SP	2021-05-22	17.2	8.6	680	15.4	15.5	15.4
RSEM-R5A-P2-D-SP	2021-05-23	18.5	8.5	682	17.2	16.4	17.2
RSEM-R5A-P2-D-SP	2021-05-24	18.8	8.5	627	12.5	12.5	12.5
RSEM-R5A-P2-D-SP	2021-05-25	12.5	8.4	619	14.3	14.2	14.3
RSEM-R5A-P2-D-SP	2021-05-26	14.2	8.4	623	12.4	12.5	12.4
RSEM-R5A-P2-D-SP	2021-05-29	20.3	8.9	690	7.2	7.1	7.2
RSEM-R5A-P2-D-SP	2021-05-30	20.1	8.9	686	12.9	12.9	12.9
RSEM-R5A-P2-D-SP	2021-06-01	23.6	8.5	725	34.8	34.8	34.8
RSEM-R5A-P2-D-SP	2021-06-03	23.4	8.5	965	73.8	73.2	73.8
RSEM-R5A-P2-D-SP	2021-06-04	21.6	8.8	998	66.2	66.1	66.2
RSEM-R5A-P2-D-SP	2021-06-05	21.5	8.9	1012	59	58.5	59
RSEM-R5A-P2-D-SP	2021-06-06	19.8	8.9	1020	57	56.2	57
RSEM-R5A-P2-D-SP	2021-06-07	19	8.9	1010	57.5	59.5	57.5
RSEM-R5A-P2-D-SP	2021-06-08	19.4	9	1043	53.6	54.5	53.6
RSEM-R5A-P2-D-SP	2021-06-09	18.7	8.9	1039	52.9	53.3	52.9
RSEM-R5A-P2-D-SP	2021-06-10	19.2	8.7	1059	62.3	61.6	62.3
RSEM-R5A-P2-D-SP	2021-06-11	20.8	8.5	1086	99	99.1	99
RSEM-R5A-P2-D-SP	2021-06-13	18.1	8	1135	97.3	97.4	97.3
RSEM-R5A-P2-D-SP	2021-06-15	17.2	7.8	980	42.3	42.3	42.3
RSEM-R5A-P2-D-SP	2021-06-18	20.2	8.4	970	31.2	31.3	31.2
RSEM-R5A-P2-D-SP	2021-06-20	22.3	8.1	979	24.2	24.3	24.2
RSEM-R5A-P2-D-SP	2021-06-22	24.2	8.4	1105	25.1	24.8	25.1
RSEM-R5A-P2-D-SP	2021-06-24	22.6	8.5	1129	20	20.3	20
RSEM-R5A-P2-D-SP	2021-06-26	27.5	8.4	1154	24.5	24.4	24.5
RSEM-R5A-P2-D-SP	2021-07-24	20.7	8.6	1941	9.8	9.8	9.8
RSEM-R5A-P2-D-SP	2021-08-06	24.6	8	2100	37.6	37.4	37.6
RSEM-R5A-P2-D-SP	2021-08-16	19.4	8.4	2070	77.1	77.2	77.1
RSEM-R5A-P2-D-SP	2021-08-24	19	8.3	1786	15.7	15.8	15.7
RSEM-R5A-P2-D-SP	2021-08-26	19.1	8.4	1463	11.8	11.8	11.8
RSEM-R5A-P2-D-SP	2021-08-28	18	8.4	1612	5	5	5
RSEM-R5A-P2-D-SP	2021-08-30	16.7	8.5	1638	2.9	3.1	2.9
RSEM-R5A-P2-D-SP	2021-09-01	15.4	8.7	1654	4.4	4.4	4.4
RSEM-R5A-P2-D-SP	2021-09-03	19.1	8.8	1659	3.3	3.2	3.3
RSEM-R5A-P2-D-SP	2021-09-05	18.2	8.9	1660	4.5	4.3	4.5
RSEM-R5A-P2-D-SP	2021-09-07	17.9	8.8	1537	3.2	3.2	3.2
RSEM-R5A-P2-D-SP	2021-09-09	17.7	8.7	1525	3.2	3.2	3.2
RSEM-R5A-P2-D-SP	2021-09-11	17.6	8.6	1539	4.6	4.6	4.6
RSEM-R5A-P2-D-SP	2021-09-12	16	8.7	1538	4.5	4.5	4.5
RSEM-R5A-P2-D-SP	2021-09-14	15	8.4	1682	4.7	4.8	4.7
RSEM-R5A-P2-D-SP	2021-09-16	14.3	8.4	1676	5.7	5.7	5.7
RSEM-R5A-P2-D-SP	2021-09-18	11.6	8.3	1700	6.8	6.8	6.8
RSEM-R5A-P2-D-SP	2021-09-20	13.9	8.4	1703	4.8	4.7	4.8
RSEM-R5A-P2-D-SP	2021-09-22	14.7	8.3	1704	11.3	11.9	11.3
RSEM-R5A-P2-D-SP	2021-09-25	14	8.6	1752	13.9	13.9	13.9
RSEM-R5A-P2-D-SP	2021-10-03	10.4	7.8	1659	15.1	15.3	15.1
RSEM-R5B-P2-Sump	2021-04-28	5.6	8.2	893	10.1	10	10.1
RSEM-R5B-P2-Sump	2021-04-07	7.1	8	785	18.5	18.5	18.5
RSEM-R5B-P2-Sump	2021-04-30	9.4	8.2	879	31.4	31.4	31.4
RSEM-R5B-P2-Sump	2021-05-02	11.1	8.6	801	8.4	8.6	8.4
RSEM-R5B-P2-Sump	2021-05-11	14.1	8.5	828	5.8	5.8	5.8
RSEM-R5B-P2-Sump	2021-05-12	7.4	8.4	749	6.2	6.1	6.2
RSEM-R5B-P2-Sump	2021-05-13	16	8.3	804	5.3	5.3	5.3
RSEM-R5B-P2-Sump	2021-05-14	14.7	8.2	807	5.2	5.1	5.2
RSEM-R5B-P2-Sump	2021-05-15	14.5	8.3	801	5.6	5.6	5.6
RSEM-R5B-P2-Sump	2021-05-16	14.6	8.3	802	4.2	4.1	4.2
RSEM-R5B-P2-Sump	2021-05-17	14.4	8.4	801	5.5	6	5.5
RSEM-R5B-P2-Sump	2021-05-18	12.2	8.5	740	5.3	5.2	5.3
RSEM-R5B-P2-Sump	2021-05-19	14.7	8.4	826	13.5	13.6	13.5
RSEM-R5B-P2-Sump	2021-05-20	15.6	8.3	809	16.3	16.3	16.3
RSEM-R5B-P2-Sump	2021-05-21	16.7	8.3	813	9.7	9.6	9.7
RSEM-R5B-P2-Sump	2021-05-22	16.4	8.3	828	7.8	7.8	7.8
RSEM-R5B-P2-Sump	2021-05-23	17	8.2	810	4.1	4.2	4.1
RSEM-R5B-P2-Sump	2021-05-25	12.3	8.3	736	4.5	4.5	4.5
RSEM-R5B-P2-Sump	2021-05-26	14	8.3	758	10	10	10
RSEM-R5B-P2-Sump	2021-05-27	15.7	8.4	777	3.9	3.8	3.9
RSEM-R5B-P2-Sump	2021-05-29	20.6	8.4	811	14.1	14	14.1
RSEM-R5B-P2-Sump	2021-05-30	20.1	8.4	813	12.3	12.2	12.3
RSEM-R5B-P2-Sump	2021-06-01	20.7	8.3	887	8.6	8.6	8.6
RSEM-R5B-P2-Sump	2021-06-02	22.9	8.3	826	8.5	8.4	8.5
RSEM-R5B-P2-Sump	2021-06-03	22	8.1	894	8.9	9	8.9
RSEM-R5B-P2-Sump	2021-06-04	19.5	8.5	904	6.9	6.9	6.9
RSEM-R5B-P2-Sump	2021-06-05	19.7	8.5	909	8.6	8.5	8.6

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-P2-Sump	2021-06-06	18.5	8.4	928	9.8	9.6	9.8
RSEM-R5B-P2-Sump	2021-06-07	18.5	8.5	935	11.5	11.3	11.5
RSEM-R5B-P2-Sump	2021-06-08	18.8	8.4	925	13.3	13.8	13.3
RSEM-R5B-P2-Sump	2021-06-09	19	8.4	945	12.7	12.8	12.7
RSEM-R5B-P2-Sump	2021-06-10	20	8.4	867	13.8	13.6	13.8
RSEM-R5B-P2-Sump	2021-06-11	19.3	8.2	952	12.6	12.5	12.6
RSEM-R5B-P2-Sump	2021-06-12	20.4	8.3	968	13	13	13
RSEM-R5B-P2-Sump	2021-06-13	17.9	8.4	967	13.3	13.1	13.3
RSEM-R5B-P2-Sump	2021-06-15	17.3	8.3	883	11	11	11
RSEM-R5B-P2-Sump	2021-06-16	13.8	8.4	844	14	14.1	14
RSEM-R5B-P2-Sump	2021-06-17	18.7	8.5	875	12.3	12.2	12.3
RSEM-R5B-P2-Sump	2021-06-20	23.4	8.2	875	13.3	13.3	13.3
RSEM-R5B-P2-Sump	2021-06-22	21.8	8.2	950	12.2	12.3	12.2
RSEM-R5B-P2-Sump	2021-06-23	22.8	8.2	882	11.2	11.2	11.2
RSEM-R5B-P2-Sump	2021-06-24	21.6	8.5	954	11.3	11.4	11.3
RSEM-R5B-P2-Sump	2021-06-25	23.8	8.3	962	10.4	10.4	10.4
RSEM-R5B-P2-Sump	2021-06-26	24.9	8.3	966	9.9	10	9.9
RSEM-R5B-P2-Sump	2021-06-27	27.3	8	954	9.3	9.4	9.3
RSEM-R5B-P2-Sump	2021-06-28	28.8	8.1	960	8.4	8.4	8.4
RSEM-R5B-P2-Sump	2021-06-29	31.4	8	972	4.5	4.4	4.5
RSEM-R5B-P2-Sump	2021-07-01	25.3	8.3	976	9.1	9.2	9.1
RSEM-R5B-P2-Sump	2021-07-03	19.5	8.5	1012	6.9	6.9	6.9
RSEM-R5B-P2-Sump	2021-07-04	21.8	8.3	979	7.3	7.3	7.3
RSEM-R5B-P2-Sump	2021-07-06	27.3	8.3	905	9.5	9.5	9.5
RSEM-R5B-P2-Sump	2021-07-07	29.2	8.3	1072	11.1	11.1	11.1
RSEM-R5B-P2-Sump	2021-07-08	28.9	8.4	1033	11.6	11.6	11.6
RSEM-R5B-P2-Sump	2021-07-09	27.8	8.5	1034	7.4	7.4	7.4
RSEM-R5B-P2-Sump	2021-07-10	22.1	8.6	1042	7.5	7.5	7.5
RSEM-R5B-P2-Sump	2021-07-11	25.4	8.6	1052	5.3	5.3	5.3
RSEM-R5B-P2-Sump	2021-07-13	24.3	8.6	1158	6	5.9	6
RSEM-R5B-P2-Sump	2021-07-14	12.6	8.6	1145	4.5	4.5	4.5
RSEM-R5B-P2-Sump	2021-07-15	25	8.7	1075	3.8	3.8	3.8
RSEM-R5B-P2-Sump	2021-07-16	16.5	8.7	1156	5.2	5.2	5.2
RSEM-R5B-P2-Sump	2021-07-17	15.4	8.7	1126	4.3	4.2	4.3
RSEM-R5B-P2-Sump	2021-07-18	15.2	8.7	1150	5.1	5.1	5.1
RSEM-R5B-P2-Sump	2021-07-19	18.1	8.8	1139	8.6	8.8	8.6
RSEM-R5B-P2-Sump	2021-07-20	17.9	8.5	1125	7.7	7.5	7.7
RSEM-R5B-P2-Sump	2021-07-21	18.9	8.5	1095	14.6	14.6	14.6
RSEM-R5B-P2-Sump	2021-07-22	18.9	8.5	1145	22.1	22.2	22.1
RSEM-R5B-P2-Sump	2021-07-23	19.8	8.6	1214	14.2	14.2	14.2
RSEM-R5B-P2-Sump	2021-07-24	19.4	8.6	1212	7.9	7.8	7.9
RSEM-R5B-P2-Sump	2021-07-25	20	8.6	1200	7.8	7.7	7.8
RSEM-R5B-P2-Sump	2021-07-27	23.7	8.6	1082	13	12.9	13
RSEM-R5B-P2-Sump	2021-07-28	24.3	8.6	1102	10	10	10
RSEM-R5B-P2-Sump	2021-07-29	23.9	8.6	1111	9.8	9.8	9.8
RSEM-R5B-P2-Sump	2021-07-30	27.7	8.4	1103	8.8	8.8	8.8
RSEM-R5B-P2-Sump	2021-07-31	27.6	8.5	1090	8.8	8.8	8.8
RSEM-R5B-P2-Sump	2021-08-01	24.5	8.5	1107	10.5	10.5	10.5
RSEM-R5B-P2-Sump	2021-08-03	25.6	8.4	1086	7.3	7.4	7.3
RSEM-R5B-P2-Sump	2021-08-04	24	8.3	1171	5.6	5.6	5.6
RSEM-R5B-P2-Sump	2021-08-05	24.9	8.4	1161	5	4.9	5
RSEM-R5B-P2-Sump	2021-08-06	23.7	8.3	1277	16.3	16.6	16.3
RSEM-R5B-P2-Sump	2021-08-07	19.3	8.5	1266	15.4	15.4	15.4
RSEM-R5B-P2-Sump	2021-08-08	20.7	8.5	1295	9.1	9.1	9.1
RSEM-R5B-P2-Sump	2021-08-10	18.2	8.6	1193	7.7	7.7	7.7
RSEM-R5B-P2-Sump	2021-08-11	22.5	8.5	1227	7.5	7.5	7.5
RSEM-R5B-P2-Sump	2021-08-12	24.5	8.5	1026	5.9	5.9	5.9
RSEM-R5B-P2-Sump	2021-08-13	23.3	8.4	1021	6.4	6.4	6.4
RSEM-R5B-P2-Sump	2021-08-14	23.3	8.4	1026	7.5	7.5	7.5
RSEM-R5B-P2-Sump	2021-08-15	22.3	8.4	1009	7.2	7.2	7.2
RSEM-R5B-P2-Sump	2021-08-16	19.1	8.4	1030	5.1	5.1	5.1
RSEM-R5B-P2-Sump	2021-08-17	21.3	8.4	1015	4.1	4.1	4.1
RSEM-R5B-P2-Sump	2021-08-18	20.4	8.6	1000	5.1	5.1	5.1
RSEM-R5B-P2-Sump	2021-08-19	19.7	8.5	1012	3.5	3.5	3.5
RSEM-R5B-P2-Sump	2021-08-21	20	8.5	1019	3.8	3.8	3.8
RSEM-R5B-P2-Sump	2021-08-22	14.9	8.6	1044	20.6	20.7	20.6
RSEM-R5B-P2-Sump	2021-08-23	15.6	8.4	1137	12.6	12.6	12.6
RSEM-R5B-P2-Sump	2021-08-24	17.4	8.3	1307	6.8	7	6.8
RSEM-R5B-P2-Sump	2021-08-25	18.8	8.3	1229	4.3	4.2	4.3
RSEM-R5B-P2-Sump	2021-08-26	18.2	8.4	1302	4.5	4.4	4.5
RSEM-R5B-P2-Sump	2021-08-27	19	8.4	1307	4.8	4.8	4.8
RSEM-R5B-P2-Sump	2021-08-28	17.4	8.3	1289	3.2	3.2	3.2
RSEM-R5B-P2-Sump	2021-08-29	17.3	8.3	1283	3.9	3.9	3.9
RSEM-R5B-P2-Sump	2021-08-30	16.8	8.4	1271	2	2	2
RSEM-R5B-P2-Sump	2021-08-31	15.4	8.4	1262	2.2	2.2	2.2
RSEM-R5B-P2-Sump	2021-09-01	15.5	8.4	1142	6.9	6.7	6.9
RSEM-R5B-P2-Sump	2021-09-02	16.5	8.4	1261	2.8	2.8	2.8
RSEM-R5B-P2-Sump	2021-09-03	18.3	8.5	1244	2.1	2.1	2.1
RSEM-R5B-P2-Sump	2021-09-04	16.9	8.3	1225	2.1	2.1	2.1
RSEM-R5B-P2-Sump	2021-09-05	18	8.5	1215	3.8	3.7	3.8
RSEM-R5B-P2-Sump	2021-09-06	15.9	8.5	1211	2.9	2.8	2.9
RSEM-R5B-P2-Sump	2021-09-07	18	8.5	1099	7.7	7.7	7.7
RSEM-R5B-P2-Sump	2021-09-08	16.3	8.5	1080	3.9	3.9	3.9
RSEM-R5B-P2-Sump	2021-09-09	18.2	8.5	1063	3.5	3.5	3.5
RSEM-R5B-P2-Sump	2021-09-10	20.1	8.4	1090	3.8	3.8	3.8
RSEM-R5B-P2-Sump	2021-09-11	17.4	8.4	1057	8.7	8.7	8.7
RSEM-R5B-P2-Sump	2021-09-12	14.2	8.5	1043	9	9	9
RSEM-R5B-P2-Sump	2021-09-14	15	8.2	1052	11.6	11.3	11.6
RSEM-R5B-P2-Sump	2021-09-15	12.3	8.3	1156	8.5	8.4	8.5
RSEM-R5B-P2-Sump	2021-09-16	12.8	8.5	1127	8.9	9	8.9
RSEM-R5B-P2-Sump	2021-09-17	12.1	8.4	1129	7.9	8	7.9
RSEM-R5B-P2-Sump	2021-09-18	11.3	8.3	1095	9.9	9.9	9.9
RSEM-R5B-P2-Sump	2021-09-19	13.7	8.4	1120	12.6	12.6	12.6
RSEM-R5B-P2-Sump	2021-09-20	11.7	8.5	1093	9.2	9.2	9.2
RSEM-R5B-P2-Sump	2021-09-21	14.9	8.2	1022	18.9	18.9	18.9
RSEM-R5B-P2-Sump	2021-09-22	14.5	8.4	1048	23.5	23.8	23.5
RSEM-R5B-P2-Sump	2021-09-23	12.1	8.4	969	11.2	11.3	11.2
RSEM-R5B-P2-Sump	2021-09-25	13.4	8.5	1043	8.1	8.1	8.1
RSEM-R5B-P2-Sump	2021-09-26	11.5	8.6	1033	6.8	6.7	6.8
RSEM-R5B-P2-Sump	2021-09-28	15.3	8.4	911	24.6	24.9	24.6
RSEM-R5B-P2-Sump	2021-09-29	12.9	8.4	945	21.4	21.5	21.4
RSEM-R5B-P2-Sump	2021-10-01	12.9	8.3	947	30.7	30.6	30.7
RSEM-R5B-P2-Sump	2021-10-02	11.8	8.4	982	32.5	32.6	32.5
RSEM-R5B-P2-Sump	2021-10-03	12.2	8.2	913	58.3	58.4	58.3
RSEM-R5B-P2-Sump	2021-10-05	5	7.8	977	13.5	13.6	13.5
RSEM-R5B-P2-Sump	2021-10-06	7.5	8	975	7.9	7.9	7.9
RSEM-R5B-P2-Sump	2021-10-07	8	8.2	899	17.3	17.1	17.3
RSEM-R5B-P2-Sump	2021-10-08	10	8.3	985	11.5	11.5	11.5
RSEM-R5B-P2-Sump	2021-10-09	10.1	8.4	911	6.8	6.8	6.8
RSEM-R5B-P2-Sump	2021-10-10	7.9	8.4	964	7.7	7.7	7.7

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R5B-P2-Sump	2021-10-11	5.1	8.8	735	11.8	11.8	11.8
RSEM-R5B-P2-Sump	2021-10-12	5.2	8.2	946	7.4	7.5	7.4
RSEM-R5B-P2-Sump	2021-10-13	5.6	8	782	5.7	5.7	5.7
RSEM-R5B-P2-Sump	2021-10-14	8.1	8.2	842	5.2	5.2	5.2
RSEM-R5B-P2-Sump	2021-10-15	6.8	8.7	914	5.4	5.4	5.4
RSEM-R5B-P2-Sump	2021-10-16	5.6	8.8	911	6.6	6.6	6.6
RSEM-R5B-P2-Sump	2021-10-17	4.6	8.4	954	7	7	7
RSEM-R5B-P2-Sump	2021-10-18	2.2	8.4	946	7	7	7
RSEM-R5B-P2-Sump	2021-10-19	7.8	8.4	858	13	13	13
RSEM-R5B-P2-Sump	2021-10-20	5.8	8.4	865	10.8	10.8	10.8
RSEM-R5B-P2-Sump	2021-10-22	8.3	8.6	748	9.2	9.2	9.2
RSEM-R5B-P2-Sump	2021-10-23	7.3	8.6	816	9	9	9
RSEM-R5B-P2-Sump	2021-10-24	7.6	8.6	813	12.1	12.1	12.1
RSEM-R5B-P2-Sump	2021-10-26	9.3	8.5	801	7.1	7	7.1
RSEM-R5B-P2-Sump	2021-10-27	7.3	8.4	833	7	7	7
RSEM-R5B-P2-Sump	2021-10-28	3.8	8.8	856	10.8	10.8	10.8
RSEM-R5B-P2-Sump	2021-10-29	3.9	8.8	961	14.7	15	14.7
RSEM-R5B-P2-Sump	2021-10-30	1.7	8.2	1256	70.9	71.1	70.9
RSEM-R5B-P2-Sump	2021-10-31	1.9	8.4	1187	38.4	38.2	38.4
RSEM-R5B-P2-Sump	2021-11-01	0.6	8.4	1285	35.6	35.8	35.6
RSEM-R5B-P2-Sump	2021-11-02	3.3	8	1013	73.8	73.6	73.8
RSEM-R5B-P2-Sump	2021-11-03	1.5	8.2	861	33.3	33.7	33.3
RSEM-R5B-P2-Sump	2021-11-04	1.4	8.2	839	10.6	10.6	10.6
RSEM-R5B-P2-Sump	2021-11-05	3.4	8.6	1041	23.2	23.2	23.2
RSEM-R5B-P2-Sump	2021-11-06	1.6	8.4	1362	22.9	22.9	22.9
RSEM-R5B-P2-Sump	2021-11-07	2.7	8.6	1065	14.2	14.2	14.2
RSEM-R5B-P2-Sump	2021-11-10	1.6	8.5	972	11.5	11.4	11.5
RSEM-R5B-P2-Sump	2021-11-11	2.4	8.4	1108	18.4	18.3	18.4
RSEM-R5B-P2-Sump	2021-11-13	3.9	8.2	1047	27.9	28	27.9
RSEM-R5B-P2-Sump	2021-11-14	2.9	8.1	1104	68.2	68.2	68.2
RSEM-R5B-P2-Sump	2021-11-16	2.8	8.1	1070	54.8	54.6	54.8
RSEM-R5B-P2-Sump	2021-11-17	1.5	8.4	1192	22.8	23	22.8
RSEM-R5B-P2-Sump	2021-11-18	1.6	8.2	1157	16.8	16.8	16.8
RSEM-R5B-P2-Sump	2021-11-19	1.1	8.1	1249	16.2	16.5	16.2
RSEM-R5B-P2-Sump	2021-11-22	0.5	8.6	1307	19.1	18.9	19.1
RSEM-R5B-P2-Sump	2021-11-26	1.5	8.2	1429	57.2	56.5	57.2
RSEM-R5B-P2-Sump	2021-11-27	2.9	8.1	1334	55.5	55.6	55.5
RSEM-R5B-P2-Sump	2021-11-28	2.4	8.1	1402	79.9	79.9	79.9
RSEM-R5B-P2-Sump	2021-11-29	1.3	8	1353	758	761	758
RSEM-R5B-P2-Sump	2021-12-02	1.8	8.2	1306	82	84	82
RSEM-R5b-SP	2021-06-16	13					
RSEM-R5b-SP	2021-07-10						
RSEM-R6E-EOP	2021-01-01	0.3	7.4	996	5.2	5.2	5.2
RSEM-R6E-EOP	2021-01-02	0.4	7.9	972	4.1	4.1	4.1
RSEM-R6E-EOP	2021-01-03	0	7.9	977	4	3.9	4
RSEM-R6E-EOP	2021-01-04	3.3	7.8	973	3.8	3.8	3.8
RSEM-R6E-EOP	2021-01-05	1.5	8.1	961	4	4	4
RSEM-R6E-EOP	2021-01-06	3.7	8.2	1002	4.7	4.6	4.7
RSEM-R6E-EOP	2021-01-07	3	8	960	2.2	2.2	2.2
RSEM-R6E-EOP	2021-01-08	2.6	8.2	976	2.2	2.3	2.2
RSEM-R6E-EOP	2021-01-09	2.8	8.3	982	3	3	3
RSEM-R6E-EOP	2021-01-10	3.7	8	930	5.2	5.1	5.2
RSEM-R6E-EOP	2021-01-11	3.4	8.4	973	7.4	7.4	7.4
RSEM-R6E-EOP	2021-01-12	4	8.1	930	5.2	5.2	5.2
RSEM-R6E-EOP	2021-01-13	4.9	8.2	945	2.4	2.4	2.4
RSEM-R6E-EOP	2021-01-14	1.1	8.1	931	2.1	2.1	2.1
RSEM-R6E-EOP	2021-01-15	4.5	7.8	880	5.7	5.7	5.7
RSEM-R6E-EOP	2021-01-16	4.6	8	898	4.3	4.3	4.3
RSEM-R6E-EOP	2021-01-17	4.5	7.8	857	2.4	2.4	2.4
RSEM-R6E-EOP	2021-01-18	4.1	7.9	890	2.1	2.1	2.1
RSEM-R6E-EOP	2021-01-19	5.1	7.9	915	1.8	1.7	1.8
RSEM-R6E-EOP	2021-01-20	4.4	8.1	932	3.1	3.1	3.1
RSEM-R6E-EOP	2021-01-21	2	7.9	888	3.1	2.9	3.1
RSEM-R6E-EOP	2021-01-22	3.8	8.2	903	2.7	2.6	2.7
RSEM-R6E-EOP	2021-01-23	1.2	8.1	906	1.9	1.8	1.9
RSEM-R6E-EOP	2021-01-24	3.9	7.8	924	6.5	6.5	6.5
RSEM-R6E-EOP	2021-01-25	2.8	7.8	906	2.2	2.4	2.2
RSEM-R6E-EOP	2021-01-26	1	8.2	922	2.1	2.2	2.1
RSEM-R6E-EOP	2021-01-27	0.2	8.1	1002	1.7	1.8	1.7
RSEM-R6E-EOP	2021-01-28	0.4	8.2	1013	2.8	2.8	2.8
RSEM-R6E-EOP	2021-01-29	1	7.8	1036	2.4	2.3	2.4
RSEM-R6E-EOP	2021-01-30	0	8	1012	2.4	2.4	2.4
RSEM-R6E-EOP	2021-01-31	0.9	8	1007	3.1	3.1	3.1
RSEM-R6E-EOP	2021-02-01	0.9	8.1	1016	2.7	2.7	2.7
RSEM-R6E-EOP	2021-02-02	0.2	8	1007	3	3	3
RSEM-R6E-EOP	2021-02-06	1.1	7.9	1009	3.1	3.1	3.1
RSEM-R6E-EOP	2021-02-07	4.5	8.4	946	3.2	3.3	3.2
RSEM-R6E-EOP	2021-02-09	1.8	8.2	937	2.2	2.2	2.2
RSEM-R6E-EOP	2021-02-10	4.4	7.2	965	2.9	2.8	2.9
RSEM-R6E-EOP	2021-02-11	2.6	8.3	925	3.6	3.6	3.6
RSEM-R6E-EOP	2021-02-12	2.3	8.1	974	2.9	3	2.9
RSEM-R6E-EOP	2021-02-13	1.6	7.9	940	5	4.9	5
RSEM-R6E-EOP	2021-02-14	2.1	7.8	936	2.6	2.6	2.6
RSEM-R6E-EOP	2021-02-19	5.3	7.7	960	4.1	4.1	4.1
RSEM-R6E-EOP	2021-02-20	0.8	8	1032	2.4	2.4	2.4
RSEM-R6E-EOP	2021-02-21	6.5	7.8	1025	2	2.1	2
RSEM-R6E-EOP	2021-02-22	4.5	7.9	820	8.5	8.5	8.5
RSEM-R6E-EOP	2021-02-23	1.9	7.9	957	12.3	12.4	12.3
RSEM-R6E-EOP	2021-02-24	1.1	8.5	969	3.9	3.9	3.9
RSEM-R6E-EOP	2021-02-25	0.2	8.3	945	4.7	4.3	4.7
RSEM-R6E-EOP	2021-02-28	0.3	8.4	978	5	5	5
RSEM-R6E-EOP	2021-03-01	0.6	8.5	877	4.7	4.5	4.7
RSEM-R6E-EOP	2021-03-02	2.8	8.2	868	4.7	4.6	4.7
RSEM-R6E-EOP	2021-03-03	3.6	8.4	844	11.3	11.3	11.3
RSEM-R6E-EOP	2021-03-04	3.9	8.6	870	4.2	4.1	4.2
RSEM-R6E-EOP	2021-03-05	1.3	8.5	865	4.1	4.1	4.1
RSEM-R6E-EOP	2021-03-06	4.6	8.2	822	20.4	19.9	20.4
RSEM-R6E-EOP	2021-03-07	5.4	8.3	707	17.4	17.1	17.4
RSEM-R6E-EOP	2021-03-08	3.2	8.5	708	11.1	11.1	11.1
RSEM-R6E-EOP	2021-03-09	1	7.9	765	5	5.1	5
RSEM-R6E-EOP	2021-03-10	2.4	8.2	754	4.4	4.4	4.4
RSEM-R6E-EOP	2021-03-11	0.9	8.3	775	2.4	2.5	2.4
RSEM-R6E-EOP	2021-03-13	0.6	8.3	773	2.4	2.4	2.4
RSEM-R6E-EOP	2021-03-15	2.1	8	785	4.9	4.9	4.9
RSEM-R6E-EOP	2021-03-16	5.2	8.2	683	8.6	8.5	8.6
RSEM-R6E-EOP	2021-03-17	4.2	7.2	685	9.1	9.1	9.1
RSEM-R6E-EOP	2021-03-18	2.4	8.2	786	7.1	7.1	7.1
RSEM-R6E-EOP	2021-03-19	3.6	8.1	780	6.8	6.7	6.8
RSEM-R6E-EOP	2021-03-20	2.7	8.5	662	8.1	8	8.1
RSEM-R6E-EOP	2021-03-21	2.7	8.4	674	4.8	4.8	4.8

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-EOP	2021-03-22	4.2	8.3	596	4.2	4.2	4.2
RSEM-R6E-EOP	2021-03-23	0.7	8.2	602	3.4	3.4	3.4
RSEM-R6E-EOP	2021-03-24	2.5	8.1	599	2.5	2.6	2.5
RSEM-R6E-EOP	2021-03-26	3.3	8.3	600	2.5	2.6	2.5
RSEM-R6E-EOP	2021-03-27	2.2	8.3	607	2.1	2.2	2.1
RSEM-R6E-EOP	2021-03-28	1.9	8	617	3	3	3
RSEM-R6E-EOP	2021-03-29	2.3	8	613	5.2	5.2	5.2
RSEM-R6E-EOP	2021-03-30	3	8	635	2	1.9	2
RSEM-R6E-EOP	2021-03-31	3.8	8	673	4	4	4
RSEM-R6E-EOP	2021-04-01	3.8	8.1	681	11.7	11.8	11.7
RSEM-R6E-EOP	2021-04-02	4.2	8.2	638	5.6	5.6	5.6
RSEM-R6E-EOP	2021-04-03	5	8.1	613	4.9	4.9	4.9
RSEM-R6E-EOP	2021-04-04	4.8	8.1	610	8.8	8.7	8.8
RSEM-R6E-EOP	2021-04-05	3.9	7.9	633	8.8	8.8	8.8
RSEM-R6E-EOP	2021-04-06	4.2	8.4	630	11.6	11.6	11.6
RSEM-R6E-EOP	2021-04-07	4.7	8.5	620	4.4	4.6	4.4
RSEM-R6E-EOP	2021-04-08	4.2	8.1	608	3.2	3.2	3.2
RSEM-R6E-EOP	2021-04-09	4.8	8.3	596	3.4	3.3	3.4
RSEM-R6E-EOP	2021-04-10	3.3	8.6	541	3.6	3.5	3.6
RSEM-R6E-EOP	2021-04-11	5.5	8.4	590	4.1	4.1	4.1
RSEM-R6E-EOP	2021-04-12	5.7	8.3	588	2.8	2.8	2.8
RSEM-R6E-EOP	2021-04-13	6.6	8.4	527	2.2	2.3	2.2
RSEM-R6E-EOP	2021-04-14	8.8	8.3	2350	2.4	2.4	2.4
RSEM-R6E-EOP	2021-04-15	9.7	8.4	539	15.3	15.2	15.3
RSEM-R6E-EOP	2021-04-16	9.7	8.2	564	12.9	13	12.9
RSEM-R6E-EOP	2021-04-17	10.1	8.3	518	10.2	10.2	10.2
RSEM-R6E-EOP	2021-04-18	8	8.4	512	10.1	10.1	10.1
RSEM-R6E-EOP	2021-04-19	9	8.5	542	15.6	15.5	15.6
RSEM-R6E-EOP	2021-04-20	8	8.4	526	15.1	15.1	15.1
RSEM-R6E-EOP	2021-04-21	8	8.4	523	17.4	17.4	17.4
RSEM-R6E-EOP	2021-04-22	3	8.4	546	13.2	13.2	13.2
RSEM-R6E-EOP	2021-04-24	8	8.5	537	12.5	12.5	12.5
RSEM-R6E-EOP	2021-04-25	9	8.5	534	13.8	13.8	13.8
RSEM-R6E-EOP	2021-04-26	3	8.4	572	9.5	9.5	9.5
RSEM-R6E-EOP	2021-04-28	5	8.3	598	13.6	13.7	13.6
RSEM-R6E-EOP	2021-04-29	5.7	8.1	606	14.3	14.2	14.3
RSEM-R6E-EOP	2021-04-30	8.6	8.2	593	11.6	11.5	11.6
RSEM-R6E-EOP	2021-05-03	10.7	8.6	572	11.3	11.3	11.3
RSEM-R6E-EOP	2021-05-04	11.9	7.7	533	8.1	8.1	8.1
RSEM-R6E-EOP	2021-05-05	12.6	7.8	533	7.5	7.5	7.5
RSEM-R6E-EOP	2021-05-06	12.7	8.2	534	12.5	12.1	12.5
RSEM-R6E-EOP	2021-05-07	10	8.3	549	7.6	7.7	7.6
RSEM-R6E-EOP	2021-05-08	12.8	8.1	534	6.4	6.4	6.4
RSEM-R6E-EOP	2021-05-09	14.9	8.2	539	4.3	4.3	4.3
RSEM-R6E-EOP	2021-05-10	12.1	8.1	543	3.4	3.4	3.4
RSEM-R6E-EOP	2021-05-11	13.5	8	586	2.7	2.7	2.7
RSEM-R6E-EOP	2021-05-12	14.9	8.2	587	3.9	3.8	3.9
RSEM-R6E-EOP	2021-05-13	14.8	8.4	582	2.1	2.2	2.1
RSEM-R6E-EOP	2021-05-14	15	8.2	582	2	1.9	2
RSEM-R6E-EOP	2021-05-15	16	8.3	570	2.6	2.6	2.6
RSEM-R6E-EOP	2021-05-16	15.9	8.4	560	2.6	2.6	2.6
RSEM-R6E-EOP	2021-05-17	14.7	8.4	552	2.9	2.7	2.9
RSEM-R6E-EOP	2021-05-18	13.4	8.7	552	3.7	3.6	3.7
RSEM-R6E-EOP	2021-05-19	14.5	8.4	636	3.5	3.6	3.5
RSEM-R6E-EOP	2021-05-20	15.6	8.1	739	4	4.1	4
RSEM-R6E-EOP	2021-05-21	15.5	8.1	746	2.1	2	2.1
RSEM-R6E-EOP	2021-05-22	14.8	8.1	750	3.1	3.1	3.1
RSEM-R6E-EOP	2021-05-23	18.1	8.3	726	2.1	2.1	2.1
RSEM-R6E-EOP	2021-05-24	16.6	8.2	697	1.9	2	1.9
RSEM-R6E-EOP	2021-05-25	13.3	8	697	1.4	1.4	1.4
RSEM-R6E-EOP	2021-05-26	13.3	8	1000	1.5	1.5	1.5
RSEM-R6E-EOP	2021-05-27	13.4	7.9	1128	1.2	1.2	1.2
RSEM-R6E-EOP	2021-05-28	17.2	8.1	1160	3.7	3.7	3.7
RSEM-R6E-EOP	2021-05-29	16.9	8	1127	2.2	2.2	2.2
RSEM-R6E-EOP	2021-05-30	15.4	8	1126	1.5	1.5	1.5
RSEM-R6E-EOP	2021-05-31	14.3	7.8	112.1	1.8	1.9	1.8
RSEM-R6E-EOP	2021-06-05	18.8	7.7	1095	1.4	1.4	1.4
RSEM-R6E-EOP	2021-06-06	18.2	7.6	1089	3	3	3
RSEM-R6E-EOP	2021-06-07	17.6	7.7	1057	1.4	1.4	1.4
RSEM-R6E-EOP	2021-06-08	10.2	7.6	1028	1.3	1.2	1.3
RSEM-R6E-EOP	2021-06-09	19.2	7.8	1014	1.1	1	1.1
RSEM-R6E-EOP	2021-06-10	19	7.8	1018	1.3	1.3	1.3
RSEM-R6E-EOP	2021-06-11	19	8.2	1016	5.6	5.5	5.6
RSEM-R6E-EOP	2021-06-15	18	7.7	916	2.5	2.4	2.5
RSEM-R6E-EOP	2021-06-16	17.8	8	897	1.9	1.9	1.9
RSEM-R6E-EOP	2021-06-17	16.3	8	917	4.3	4.3	4.3
RSEM-R6E-EOP	2021-06-18	17.9	8.1	923	2.7	2.7	2.7
RSEM-R6E-EOP	2021-06-19	17.3	8	907	2.9	2.9	2.9
RSEM-R6E-EOP	2021-06-20	18.3	8.1	906	2.6	2.6	2.6
RSEM-R6E-EOP	2021-06-21	18.2	7.8	899	4.5	4.5	4.5
RSEM-R6E-EOP	2021-07-17	17.8	8	1042	1.3	1.3	1.3
RSEM-R6E-EOP	2021-07-18	17.8	8	1044	1.3	1.3	1.3
RSEM-R6E-EOP	2021-07-19	20.7	8.6	1007	1.8	1.9	1.8
RSEM-R6E-EOP	2021-07-20	18.2	8.4	988	2.1	2	2.1
RSEM-R6E-EOP	2021-07-21	19.9	8.5	980	4.6	4.9	4.6
RSEM-R6E-EOP	2021-07-22	17.5	8.2	1314	7.4	7.5	7.4
RSEM-R6E-EOP	2021-07-23	18.1	8	1263	19.3	19.3	19.3
RSEM-R6E-EOP	2021-07-24	20.6	8.3	1229	6.8	6.9	6.8
RSEM-R6E-EOP	2021-07-25	20.7	8.3	1205	9.9	9.6	9.9
RSEM-R6E-EOP	2021-07-26	19.5	8.2	1202	2.6	2.5	2.6
RSEM-R6E-EOP	2021-07-27	19.7	8.4	1079	2	2	2
RSEM-R6E-EOP	2021-07-28	19.6	8.4	1067	2	2	2
RSEM-R6E-EOP	2021-07-28	17.9	8.5	759	7.4	7.4	7.4
RSEM-R6E-EOP	2021-08-02	21.6	8.2	964	2.2	2.2	2.2
RSEM-R6E-EOP	2021-08-03	22.8	8.2	1049	2.3	2.2	2.3
RSEM-R6E-EOP	2021-08-04	24.5	8.5	1031	2.7	2.7	2.7
RSEM-R6E-EOP	2021-08-05	23.3	8.3	1016	3	3	3
RSEM-R6E-EOP	2021-08-06	22.6	7.9	1291	3.8	3.8	3.8
RSEM-R6E-EOP	2021-08-07	19.6	7.9	1533	2.4	2.5	2.4
RSEM-R6E-EOP	2021-08-08	21.3	8.2	1430	2.5	2.4	2.5
RSEM-R6E-EOP	2021-08-09	19.6	8.2	1337	1.8	1.8	1.8
RSEM-R6E-EOP	2021-08-10	18.1	8.3	1206	1.6	1.6	1.6
RSEM-R6E-EOP	2021-08-11	19.7	8.2	1189	1.4	1.4	1.4
RSEM-R6E-EOP	2021-08-12	19.1	8.3	948	1.3	1.3	1.3
RSEM-R6E-EOP	2021-08-13	20.1	8.2	913	1.3	1.3	1.3
RSEM-R6E-EOP	2021-08-14	20.4	8.2	846	2.3	2.3	2.3
RSEM-R6E-EOP	2021-08-15	21.1	8.3	808	1.8	1.8	1.8
RSEM-R6E-EOP	2021-08-16	19	8.2	764	1.7	1.7	1.7
RSEM-R6E-EOP	2021-08-17	19.1	8.1	728	2.1	2.1	2.1
RSEM-R6E-EOP	2021-08-18	18.6	8.5	675	2.3	2.3	2.3

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-EOP	2021-08-19	19.4	8.4	644	1.8	1.8	1.8
RSEM-R6E-EOP	2021-08-20	18.4	8.3	640	1.7	1.7	1.7
RSEM-R6E-EOP	2021-08-21	17.8	8.2	617	1.7	1.7	1.7
RSEM-R6E-EOP	2021-08-22	14.3	8.1	1079	6.1	6.1	6.1
RSEM-R6E-EOP	2021-08-23	13.5	8	1121	6.9	6.9	6.9
RSEM-R6E-EOP	2021-08-24	17	8	1175	5.3	5.3	5.3
RSEM-R6E-EOP	2021-08-25	18.3	8.2	1109	4.6	4.6	4.6
RSEM-R6E-EOP	2021-08-26	15.6	8.2	1068	3.6	3.6	3.6
RSEM-R6E-EOP	2021-08-27	16.6	8.3	986	3.5	3.4	3.5
RSEM-R6E-EOP	2021-08-28	16.8	8.2	918	3.8	3.8	3.8
RSEM-R6E-EOP	2021-08-29	16.9	8.2	888	4.2	4.2	4.2
RSEM-R6E-EOP	2021-08-30	15.3	8.3	853	1.6	1.6	1.6
RSEM-R6E-EOP	2021-08-31	15.5	8.3	870	1.7	1.7	1.7
RSEM-R6E-EOP	2021-09-01	15.8	8.4	799	2.8	2.8	2.8
RSEM-R6E-EOP	2021-09-02	14.7	8.3	792	1.7	1.7	1.7
RSEM-R6E-EOP	2021-09-03	16	8.3	757	2.3	2.4	2.3
RSEM-R6E-EOP	2021-09-04	16.7	8.4	720	2.2	2.2	2.2
RSEM-R6E-EOP	2021-09-05	16.7	8.5	704	2.7	2.6	2.7
RSEM-R6E-EOP	2021-09-06	16.8	8.4	693	5	5	5
RSEM-R6E-EOP	2021-09-07	15.6	8.5	626	2.1	2.1	2.1
RSEM-R6E-EOP	2021-09-08	15.4	8.3	606	2.5	2.5	2.5
RSEM-R6E-EOP	2021-09-09	15.7	8.2	628	2.7	2.7	2.7
RSEM-R6E-EOP	2021-09-10	15.3	8.3	620	2.4	2.4	2.4
RSEM-R6E-EOP	2021-09-11	17.7	8.4	624	3	3	3
RSEM-R6E-EOP	2021-09-12	16.4	8.4	622	2	2	2
RSEM-R6E-EOP	2021-09-13	13.5	8.2	623	2.7	2.7	2.7
RSEM-R6E-EOP	2021-09-14	14.4	8.4	668	4.7	4.8	4.7
RSEM-R6E-EOP	2021-09-15	12.7	8.4	690	3.5	3.4	3.5
RSEM-R6E-EOP	2021-09-16	12.5	8.5	709	3.2	3.2	3.2
RSEM-R6E-EOP	2021-09-17	11.6	8.6	730	3	3	3
RSEM-R6E-EOP	2021-09-18	11.9	8.4	743	3.7	3.8	3.7
RSEM-R6E-EOP	2021-09-19	14	8.4	746	5	5	5
RSEM-R6E-EOP	2021-09-20	11.1	8	744	2.4	2.4	2.4
RSEM-R6E-EOP	2021-09-21	12.5	8.4	745	3.3	3.3	3.3
RSEM-R6E-EOP	2021-09-22	13	8.3	732	4.4	4.6	4.4
RSEM-R6E-EOP	2021-09-23	12.2	8.5	707	4	4	4
RSEM-R6E-EOP	2021-09-24	12.4	8.5	712	6.1	6.1	6.1
RSEM-R6E-EOP	2021-09-25	13	8.4	673	9.8	9.9	9.8
RSEM-R6E-EOP	2021-09-26	12.6	8.4	650	5.4	5.5	5.4
RSEM-R6E-EOP	2021-09-27	11.4	8.1	638	6.6	6.6	6.6
RSEM-R6E-EOP	2021-09-28	12.2	8.1	639	5.9	5.9	5.9
RSEM-R6E-EOP	2021-09-29	11	8.1	635	5.2	5.2	5.2
RSEM-R6E-EOP	2021-09-30	12.7	7.9	697	8.1	8	8.1
RSEM-R6E-EOP	2021-10-01	11.9	7.9	650	4.8	4.8	4.8
RSEM-R6E-EOP	2021-10-02	11.1	8	665	5	5	5
RSEM-R6E-EOP	2021-10-03	10.8	7.9	652	3.4	3.4	3.4
RSEM-R6E-EOP	2021-10-04	9.2	8	639	3.9	3.8	3.9
RSEM-R6E-EOP	2021-10-05	7	8.3	679	3.7	3.7	3.7
RSEM-R6E-EOP	2021-10-06	7.1	8	667	4.5	4.6	4.5
RSEM-R6E-EOP	2021-10-07	7.4	8	659	5.5	5.6	5.5
RSEM-R6E-EOP	2021-10-08	7.7	8.1	669	4.5	4.5	4.5
RSEM-R6E-EOP	2021-10-09	8.5	8.6	665	4.5	4.5	4.5
RSEM-R6E-EOP	2021-10-10	7.2	8.6	623	4.3	4.3	4.3
RSEM-R6E-EOP	2021-10-11	8.1	8.2	560	4.1	4.1	4.1
RSEM-R6E-EOP	2021-10-12	7.8	8.5	622	4.4	4.4	4.4
RSEM-R6E-EOP	2021-10-13	6.2	8.6	621	4.2	4.2	4.2
RSEM-R6E-EOP	2021-10-14	5.8	8.3	530	4.5	4.5	4.5
RSEM-R6E-EOP	2021-10-15	7	8.4	576	4.3	4.3	4.3
RSEM-R6E-EOP	2021-10-16	6.1	8.5	592	4.2	4.2	4.2
RSEM-R6E-EOP	2021-10-17	7.1	8.5	617	5.6	5.6	5.6
RSEM-R6E-EOP	2021-10-18	4.7	8.1	627	6.2	6.2	6.2
RSEM-R6E-EOP	2021-10-19	6.8	8.3	563	4.9	4.9	4.9
RSEM-R6E-EOP	2021-10-20	6	8.2	570	4.8	4.8	4.8
RSEM-R6E-EOP	2021-10-21	6.5	7.9	569	4.6	4.6	4.6
RSEM-R6E-EOP	2021-10-22	6.7	8.5	553	4.2	4.2	4.2
RSEM-R6E-EOP	2021-10-23	6.2	8.5	555	4.6	4.6	4.6
RSEM-R6E-EOP	2021-10-24	6.5	8.3	570	4.9	4.9	4.9
RSEM-R6E-EOP	2021-10-25	6.1	8.5	640	6	6	6
RSEM-R6E-EOP	2021-10-26	5.1	8.4	714	5.1	5.1	5.1
RSEM-R6E-EOP	2021-10-27	5.8	8.5	745	4.8	4.9	4.8
RSEM-R6E-EOP	2021-10-28	5	8.4	746	4	4	4
RSEM-R6E-EOP	2021-10-29	4.2	8.5	833	5	5	5
RSEM-R6E-EOP	2021-10-30	2.5	8.3	830	5.3	5.2	5.3
RSEM-R6E-EOP	2021-10-31	3.1	8.6	847	4.6	4.7	4.6
RSEM-R6E-EOP	2021-11-01	3.9	8.3	843	4.2	4.1	4.2
RSEM-R6E-EOP	2021-11-02	3.6	8.4	888	5.1	5.1	5.1
RSEM-R6E-EOP	2021-11-03	3.6	8.6	902	3.8	3.8	3.8
RSEM-R6E-EOP	2021-11-04	3.7	8.4	898	3.9	3.9	3.9
RSEM-R6E-EOP	2021-11-05	3.8	8.4	904	5.4	5.4	5.4
RSEM-R6E-EOP	2021-11-06	3.6	8.2	929	3.9	3.9	3.9
RSEM-R6E-EOP	2021-11-07	3.6	8.2	975	4.2	4.2	4.2
RSEM-R6E-EOP	2021-11-08	2.8	8.1	1028	3.9	3.9	3.9
RSEM-R6E-EOP	2021-11-09	5.1	8.4	954	3.5	3.5	3.5
RSEM-R6E-EOP	2021-11-10	5.2	8.5	972	2.7	2.7	2.7
RSEM-R6E-EOP	2021-11-11	4.2	8.2	970	2.7	2.7	2.7
RSEM-R6E-EOP	2021-11-12	4.6	8.2	934	3.5	3.5	3.5
RSEM-R6E-EOP	2021-11-13	5.8	8.1	1000	3.3	3.3	3.3
RSEM-R6E-EOP	2021-11-14	5.3	8.2	987	3	3	3
RSEM-R6E-EOP	2021-11-15	2.7	8.4	983	4.3	4.3	4.3
RSEM-R6E-EOP	2021-11-16	2.2	8.5	1040	3.5	3.5	3.5
RSEM-R6E-EOP	2021-11-17	2.4	8.4	1064	2.7	2.7	2.7
RSEM-R6E-EOP	2021-11-18	2.2	8.3	1074	3	2.9	3
RSEM-R6E-EOP	2021-11-19	3	8.2	1094	3.5	3.5	3.5
RSEM-R6E-EOP	2021-11-20	1.6	8.5	975	4.4	4.4	4.4
RSEM-R6E-EOP	2021-11-21	2.1	8.4	1021	4.8	4.8	4.8
RSEM-R6E-EOP	2021-11-22	2.8	8.3	1013	4.5	4.5	4.5
RSEM-R6E-EOP	2021-11-23	0.8	8.1	1003	4.3	4.3	4.3
RSEM-R6E-EOP	2021-11-24	2.5	8.2	1013	3.9	3.9	3.9
RSEM-R6E-EOP	2021-11-25	4.9	8.3	1007	3.8	3.8	3.8
RSEM-R6E-EOP	2021-11-26	4.3	8.1	926	3.1	3.1	3.1
RSEM-R6E-EOP	2021-11-27	5.5	8.2	998	4	4	4
RSEM-R6E-EOP	2021-11-28	6.5	8.2	1060	5.2	5.2	5.2
RSEM-R6E-EOP	2021-11-29	5	8	1034	4.2	4.1	4.2
RSEM-R6E-EOP	2021-11-30	4	8.3	1059	3.9	3.9	3.9
RSEM-R6E-EOP	2021-12-01	4	8.3	1078	3.7	3.7	3.7
RSEM-R6E-EOP	2021-12-02	4	8	1091	4.4	4.4	4.4
RSEM-R6E-EOP	2021-12-03	3.4	8.2	1150	4.3	4.3	4.3
RSEM-R6E-EOP	2021-12-04	2.8	8.3	1169	3.1	3.1	3.1
RSEM-R6E-EOP	2021-12-08	4.8	8.2	1260	2.9	2.9	2.9
RSEM-R6E-EOP	2021-12-09	3	8.2	1233	2.9	2.8	2.9

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-EOP	2021-12-10	3.6	8.2	1189	3.2	3.2	3.2
RSEM-R6E-EOP	2021-12-11	2	8	1212	3.8	3.8	3.8
RSEM-R6E-EOP	2021-12-26	1.3	7.1	928	7	7.1	7
RSEM-R6-EP-US-SD	2021-01-05	1.1	8	679	7.5	7.6	7.5
RSEM-R6-EP-US-SD	2021-01-06	2.9	8	1255	28.4	28.4	28.4
RSEM-R6-EP-US-SD	2021-01-07	1.2	8.4	1229	34.1	34	34.1
RSEM-R6-EP-US-SD	2021-01-08	1.3	8.1	682	5.9	6	5.9
RSEM-R6-EP-US-SD	2021-01-09	1.5	8.4	670	8.1	8	8.1
RSEM-R6-EP-US-SD	2021-01-10	1.6	8	669	10.9	10.9	10.9
RSEM-R6-EP-US-SD	2021-01-11	2	7.8	2020	20	19	20
RSEM-R6-EP-US-SD	2021-01-12	2.9	7.5	699	33	32.9	33
RSEM-R6-EP-US-SD	2021-01-13	2.2	8.1	770	9	9	9
RSEM-R6-EP-US-SD	2021-01-15	3.4	8.3	730	7.5	7.4	7.5
RSEM-R6-EP-US-SD	2021-01-16	2.5	8.3	734	6.2	6.2	6.2
RSEM-R6-EP-US-SD	2021-01-17	2.4	8.3	746	10.2	10.3	10.2
RSEM-R6-EP-US-SD	2021-01-14	0.7	8	313	6	6	6
RSEM-R6-EP-US-SD	2021-01-26	1.6	8.1	860	8.4	8.3	8.4
RSEM-R6-EP-US-SD	2021-01-28	2.6	8.3	616	8.3	8.3	8.3
RSEM-R6-EP-US-SD	2021-01-31	0.5	7.9	1029	39.3	39	39.3
RSEM-R6-EP-US-SD	2021-02-21	1.5	8.4	657	804	806	804
RSEM-R6-EP-US-SD	2021-02-22	4.2	7.9	589	99.3	99.3	99.3
RSEM-R6-EP-US-SD	2021-02-23	2.9	8.5	770	66.4	66.2	66.4
RSEM-R6-EP-US-SD	2021-02-24	3.3	8.7	1218	21.5	21.4	21.5
RSEM-R6-EP-US-SD	2021-03-07	4.4	8.4	651	122	122	122
RSEM-R6-EP-US-SD	2021-03-09	2	8	777	74.2	74.2	74.2
RSEM-R6-EP-US-SD	2021-03-13	2.2	8.4	812	13.8	13.9	13.8
RSEM-R6-EP-US-SD	2021-03-16	3.7	7.8	1092	105	104	105
RSEM-R6-EP-US-SD	2021-03-08	4.7	8.5	650	15.1	15.1	15.1
RSEM-R6-EP-US-SD	2021-03-17	5.2	8	733	3797	3571	3797
RSEM-R6-EP-US-SD	2021-03-18	3.6	8.1	836	911	864	911
RSEM-R6-EP-US-SD	2021-03-31	7.3	8.4	632	87	83	87
RSEM-R6-EP-US-SD	2021-04-01	5.3	8.1	526	662	652	662
RSEM-R6-EP-US-SD	2021-04-02	4.8	8.2	622	82.6	81.7	82.6
RSEM-R6-EP-US-SD	2021-04-03	7.5	8.2	661	814	809	814
RSEM-R6-EP-US-SD	2021-04-04	6.5	8.4	697	44.7	45.2	44.7
RSEM-R6-EP-US-SD	2021-04-05	6.1	8	817	55.4	53.5	55.4
RSEM-R6-EP-US-SD	2021-04-06	4.3	8	417	72.5	71.1	72.5
RSEM-R6-EP-US-SD	2021-04-07	5.8	8	708	31.4	30.9	31.4
RSEM-R6-EP-US-SD	2021-04-08	3.3	8.2	721	80.2	80.3	80.2
RSEM-R6-EP-US-SD	2021-04-09	2.6	8.4	814	30.1	29.8	30.1
RSEM-R6-EP-US-SD	2021-04-10	1.7	8.1	480	25.9	26.3	25.9
RSEM-R6-EP-US-SD	2021-04-11	2.5	8.4	868	17.5	17.5	17.5
RSEM-R6-EP-US-SD	2021-04-12	1.9	8.4	938	25.6	26.9	25.6
RSEM-R6-EP-US-SD	2021-04-13	9.5	8.2	807	19.1	19	19.1
RSEM-R6-EP-US-SD	2021-04-29	8.6	8.2	501	6.7	6.7	6.7
RSEM-R6-EP-US-SD	2021-05-02	16.4	8	499	4.9	5	4.9
RSEM-R6-EP-US-SD	2021-05-11	15.7	8	543	4.8	4.8	4.8
RSEM-R6-EP-US-SD	2021-05-12	16	8.1	521	6.5	6.5	6.5
RSEM-R6-EP-US-SD	2021-05-13	18.6	8.2	707	13.6	13.7	13.6
RSEM-R6-EP-US-SD	2021-05-15	18.1	8.2	674	2.1	2.1	2.1
RSEM-R6-EP-US-SD	2021-05-16	17	8.3	739	1.5	1.5	1.5
RSEM-R6-EP-US-SD	2021-05-17	13.5	8.4	770	1.7	1.7	1.7
RSEM-R6-EP-US-SD	2021-05-18	11.2	8.4	1037	20.2	20	20.2
RSEM-R6-EP-US-SD	2021-05-19	17	8.2	751	7.8	7.7	7.8
RSEM-R6-EP-US-SD	2021-05-20	18.9	8.1	805	11.9	11.7	11.9
RSEM-R6-EP-US-SD	2021-05-21	19.3	8.1	815	6.8	6.7	6.8
RSEM-R6-EP-US-SD	2021-05-22	14.6	8	819	4.2	4.2	4.2
RSEM-R6-EP-US-SD	2021-05-23	21.9	8.1	916	5.6	5.9	5.6
RSEM-R6-EP-US-SD	2021-05-26	15.9	8	8340	6.6	6.6	6.6
RSEM-R6-EP-US-SD	2021-05-30	20	8.2	977	7	7	7
RSEM-R6-EP-US-SD	2021-06-01	23.1	8	874	2.7	2.6	2.7
RSEM-R6-EP-US-SD	2021-06-02	24.6	8	807	3.6	3.5	3.6
RSEM-R6-EP-US-SD	2021-06-04	17.9	8.2	801	4.3	4.4	4.3
RSEM-R6-EP-US-SD	2021-06-05	18.5	8.1	847	9.1	9.2	9.1
RSEM-R6-EP-US-SD	2021-06-06	18.5	8.1	843	6.5	6.3	6.5
RSEM-R6-EP-US-SD	2021-06-07	17.2	8.3	879	64.2	64.2	64.2
RSEM-R6-EP-US-SD	2021-06-08	18.3	8	973	5.6	5	5.6
RSEM-R6-EP-US-SD	2021-06-09	20.8	8.2	855	5.2	5	5.2
RSEM-R6-EP-US-SD	2021-06-10	22	8.1	851	5.6	5.5	5.6
RSEM-R6-EP-US-SD	2021-06-11	22.4	8.2	910	3.8	3.8	3.8
RSEM-R6-EP-US-SD	2021-06-12	19.9	8	895	3.1	3	3.1
RSEM-R6-EP-US-SD	2021-06-13	17.7	8.2	870	2.1	2.1	2.1
RSEM-R6-EP-US-SD	2021-06-17	17.9	8.4	1072	17	17.1	17
RSEM-R6-EP-US-SD	2021-06-22	27	8.2	822	1.7	1.7	1.7
RSEM-R6-EP-US-SD	2021-06-23	24.9	8.2	820	2.8	2.7	2.8
RSEM-R6-EP-US-SD	2021-06-24	22	8.4	824	1.6	1.6	1.6
RSEM-R6-EP-US-SD	2021-06-25	29	8.2	798	2.1	2.1	2.1
RSEM-R6-EP-US-SD	2021-06-26	22.3	8.1	823	1.3	1.3	1.3
RSEM-R6-EP-US-SD	2021-06-27	31.1	8.1	780	2.1	2.2	2.1
RSEM-R6-EP-US-SD	2021-06-28	32.4	8.1	782	3	3	3
RSEM-R6-EP-US-SD	2021-06-29	34	7.9	770	6.1	6.2	6.1
RSEM-R6-EP-US-SD	2021-07-01	23	8.3	779	2.5	2.5	2.5
RSEM-R6-EP-US-SD	2021-07-02	26.1	8.1	767	4.8	4.9	4.8
RSEM-R6-EP-US-SD	2021-07-03	16.7	8.1	816	1.7	1.7	1.7
RSEM-R6-EP-US-SD	2021-07-04	25.6	8.4	766	4.7	4.8	4.7
RSEM-R6-EP-US-SD	2021-07-13	27.8	8.5	708	6.5	6.5	6.5
RSEM-R6-EP-US-SD	2021-07-15	26.2	8.4	805	5.8	5.7	5.8
RSEM-R6-EP-US-SD	2021-07-16	13.7	8.5	904	11.7	11.7	11.7
RSEM-R6-EP-US-SD	2021-07-17	15.2	8.6	1128	57.5	56.9	57.5
RSEM-R6-EP-US-SD	2021-07-18	14.8	8.4	994	7.7	7.7	7.7
RSEM-R6-EP-US-SD	2021-07-19	23.6	8.6	967	12	12.2	12
RSEM-R6-EP-US-SD	2021-07-20	15.5	7.9	2030	OR	OR	OR
RSEM-R6-EP-US-SD	2021-07-21	22.6	8.4	1117	41.7	41.1	41.7
RSEM-R6-EP-US-SD	2021-07-22	18.6	8.2	958	29.6	29.3	29.6
RSEM-R6-EP-US-SD	2021-07-23	21.9	8.4	904	27.2	26.7	27.2
RSEM-R6-EP-US-SD	2021-07-24	24.3	8.4	956	50.6	50.5	50.6
RSEM-R6-EP-US-SD	2021-07-25	24	8.4	950	34.5	33.9	34.5
RSEM-R6-EP-US-SD	2021-08-03	25.1	8.5	915	3.7	3.7	3.7
RSEM-R6-EP-US-SD	2021-08-04	26.4	8.2	1507	7.3	7.3	7.3
RSEM-R6-EP-US-SD	2021-08-05	21.3	8.4	904	7.5	7.5	7.5
RSEM-R6-EP-US-SD	2021-08-07	15.3	7.7	4460	OR	OR	OR
RSEM-R6-EP-US-SD	2021-08-08	23.3	8.4	802	15.4	15.5	15.4
RSEM-R6-EP-US-SD	2021-08-22	12.8	8.1	1116	OR	OR	OR
RSEM-R6-EP-US-SD	2021-08-24	19.4	8	754	24.9	24.9	24.9
RSEM-R6-EP-US-SD	2021-08-25	20.8	8.4	720	16.8	16.5	16.8
RSEM-R6-EP-US-SD	2021-08-26	15.3	8.5	843	13.7	13.9	13.7
RSEM-R6-EP-US-SD	2021-08-27	16.3	8.5	743	20.2	20.1	20.2
RSEM-R6-EP-US-SD	2021-08-28	15.7	8.2	865	24.3	24.4	24.3
RSEM-R6-EP-US-SD	2021-08-29	16.5	8.1	854	14.6	14.8	14.6
RSEM-R6-EP-US-SD	2021-08-31	16.1	8.3	987	31.8	31.6	31.8

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6-EP-US-SD	2021-09-01	16.5	8.5	670	12	12	12
RSEM-R6-EP-US-SD	2021-09-03	15.4	8.5	693	8.5	8.5	8.5
RSEM-R6-EP-US-SD	2021-09-05	17.2	8.6	669	6.4	6.4	6.4
RSEM-R6-EP-US-SD	2021-09-14	14.6	8.4	1012	45.3	44.8	45.3
RSEM-R6-EP-US-SD	2021-09-16	15.2	8.4	766	5	4.9	5
RSEM-R6-EP-US-SD	2021-09-17	11	8.4	679	12.7	12.6	12.7
RSEM-R6-EP-US-SD	2021-09-18	10.6	8.2	950	38.2	37.7	38.2
RSEM-R6-EP-US-SD	2021-09-20	12.8	8.3	698	17.8	17.7	17.8
RSEM-R6-EP-US-SD	2021-09-21	16.2	8.3	742	36.4	36.3	36.4
RSEM-R6-EP-US-SD	2021-09-22	14.6	8.3	593	35.5	35.5	35.5
RSEM-R6-EP-US-SD	2021-09-23	12.1	8.8	619	58.2	58.5	58.2
RSEM-R6-EP-US-SD	2021-09-24	13.3	8.4	600	55.1	55.1	55.1
RSEM-R6-EP-US-SD	2021-09-25	14.6	8.7	580	76.3	76.4	76.3
RSEM-R6-EP-US-SD	2021-09-26	12.8	8.6	666	17.6	17.4	17.6
RSEM-R6-EP-US-SD	2021-10-05	8.5	8	665	6.1	6.1	6.1
RSEM-R6-EP-US-SD	2021-10-06	8.8	8.2	758	66	65	66
RSEM-R6-EP-US-SD	2021-10-07	8.7	8.2	704	5.5	5.5	5.5
RSEM-R6-EP-US-SD	2021-10-08	10.3	8.1	657	4	4	4
RSEM-R6-EP-US-SD	2021-10-09	11.7	8.4	642	3.2	3.2	3.2
RSEM-R6-EP-US-SD	2021-10-10	10.3	8.7	626	3.9	3.8	3.9
RSEM-R6-EP-US-SD	2021-10-11	11.4	8.6	627	3.5	3.5	3.5
RSEM-R6-EP-US-SD	2021-10-12	9.3	8.4	615	3.6	3.6	3.6
RSEM-R6-EP-US-SD	2021-10-13	9.6	8.3	522	5	4.9	5
RSEM-R6-EP-US-SD	2021-10-14	9.1	8.8	622	3.6	3.6	3.6
RSEM-R6-EP-US-SD	2021-10-15	10.1	8.8	612	3.2	3.2	3.2
RSEM-R6-EP-US-SD	2021-10-16	8.7	8.7	514	2.7	2.7	2.7
RSEM-R6-EP-US-SD	2021-10-17	8.3	8.4	639	3.7	3.7	3.7
RSEM-R6-EP-US-SD	2021-10-19	8.2	8.6	760	3.6	3.6	3.6
RSEM-R6-EP-US-SD	2021-10-20	7.5	9	795	3.8	3.8	3.8
RSEM-R6-EP-US-SD	2021-10-21	8.3	8.8	794	3.4	3.4	3.4
RSEM-R6-EP-US-SD	2021-10-22	10.3	8.5	740	3.6	3.6	3.6
RSEM-R6-EP-US-SD	2021-10-23	8.4	8.5	751	4.1	4.1	4.1
RSEM-R6-EP-US-SD	2021-10-24	7.4	8.5	770	4.3	4.3	4.3
RSEM-R6-EP-US-SD	2021-10-26	6.5	7.8	809	4.1	4.1	4.1
RSEM-R6-EP-US-SD	2021-10-27	7.3	8.3	826	3.5	3.4	3.5
RSEM-R6-EP-US-SD	2021-10-28	6	8.6	813	3.7	3.8	3.7
RSEM-R6-EP-US-SD	2021-10-29	3.5	8.6	894	10.6	10.5	10.6
RSEM-R6-EP-US-SD	2021-10-30	1.7	8.3	929	9.9	9.9	9.9
RSEM-R6-EP-US-SD	2021-10-31	3.1	8.3	851	7.9	7.9	7.9
RSEM-R6-EP-US-SD	2021-11-01	8.8	8.5	941	6.5	6.6	6.5
RSEM-R6-EP-US-SD	2021-11-02	2.8	8.1	850	5.6	5.6	5.6
RSEM-R6-EP-US-SD	2021-11-03	3.3	8.3	938	4.8	4.8	4.8
RSEM-R6-EP-US-SD	2021-11-04	5	8.3	851	44.9	44.4	44.9
RSEM-R6-EP-US-SD	2021-11-05	4.1	8.6	1133	48.3	48.3	48.3
RSEM-R6-EP-US-SD	2021-11-06	4.2	8.5	868	677	675	677
RSEM-R6-EP-US-SD	2021-11-07	4.2	8.6	1085	11.2	11	11.2
RSEM-R6-EP-US-SD	2021-11-13	2.8	8.6	957	10	10	10
RSEM-R6-EP-US-SD	2021-11-16	1.4	8.3	950	10.6	10.6	10.6
RSEM-R6-EP-US-SD	2021-11-17	1.8	8.4	927	12.8	12.9	12.8
RSEM-R6-EP-US-SD	2021-11-18	2	8.2	607	62.5	61.6	62.5
RSEM-R6-EP-US-SD	2021-11-19	0.9	8.2	719	8.1	8.1	8.1
RSEM-R6-EP-US-SD	2021-11-20	0.2	8.2	871	6.6	6.5	6.6
RSEM-R6-EP-US-SD	2021-11-21	8.2	8.3	912	5.8	5.7	5.8
RSEM-R6-EP-US-SD	2021-11-22	0.5	8.4	897	6.5	6.6	6.5
RSEM-R6-EP-US-SD	2021-11-23	-0.1	8.1	980	6.1	6.1	6.1
RSEM-R6-EP-US-SD	2021-11-26	1.8	8.3	1047	13.2	13.3	13.2
RSEM-R6-EP-US-SD	2021-11-28	1.7	8.2	1361	86	85.6	86
RSEM-R6-EP-US-SD	2021-11-30	1.3	8.4	900	4	4	4
RSEM-R6-EP-US-SD	2021-12-08	2.9	8.2	909	7.9	7.8	7.9
RSEM-R6-EP-US-SD	2021-12-09	1.5	7.9	1318	37	36.4	37
RSEM-R6-EP-US-SD	2021-12-10	1.1	7.9	1063	12.3	12.4	12.3
RSEM-R6-EP-US-SD	2021-12-11	2.3	8.2	1014	7.8	7.8	7.8
RSEM-R6E-SP	2021-02-03	2.9	7.9	901	3.8	3.8	3.8
RSEM-R6E-SP	2021-02-04	3.1	8	882	4.8	4.9	4.8
RSEM-R6E-SP	2021-02-05	2.9	8.2	942	2.9	2.9	2.9
RSEM-R6E-SP	2021-02-08	1.3	8.2	975	3.8	3.8	3.8
RSEM-R6E-SP	2021-02-16	0.5	7.8	951	2.6	2.6	2.6
RSEM-R6E-SP	2021-02-26	1.8	7.2	687	6.7	6.7	6.7
RSEM-R6E-SP	2021-02-27	2.3	8	744	7.2	7.2	7.2
RSEM-R6E-SP	2021-03-12	4.4	7.9	660	2	2	2
RSEM-R6E-SP	2021-03-14	1.3	8.2	651	4.5	4.6	4.5
RSEM-R6E-SP	2021-03-25	1.4	8.1	474	1.1	1	1.1
RSEM-R6E-SP	2021-05-02	12.8	8.4	586	9.1	9	9.1
RSEM-R6E-SP	2021-06-01	20.1	8.2	1060	1.3	1.4	1.3
RSEM-R6E-SP	2021-06-02	21.3	8.4	1042	2.7	2.8	2.7
RSEM-R6E-SP	2021-06-03	20.9	8.2	1028	3.5	3.5	3.5
RSEM-R6E-SP	2021-06-04	18	8.7	1045	1.5	1.5	1.5
RSEM-R6E-SP	2021-06-12	19.3	7.7	939	1.2	1.2	1.2
RSEM-R6E-SP	2021-06-13	20.4	7.9	921	1.5	1.5	1.5
RSEM-R6E-SP	2021-06-14	18.8	7.3	926	1.3	1.3	1.3
RSEM-R6E-SP	2021-06-22	25.5	8.8	873	1.2	1.2	1.2
RSEM-R6E-SP	2021-06-23	23.4	8.4	882	1.3	1.3	1.3
RSEM-R6E-SP	2021-06-24	22.1	7.7	889	1.1	1	1.1
RSEM-R6E-SP	2021-06-25	26.3	8	906	1.3	1.3	1.3
RSEM-R6E-SP	2021-06-26	28.3	7.9	893	1.6	1.5	1.6
RSEM-R6E-SP	2021-06-27	28.5	7.7	889	1.2	1.2	1.2
RSEM-R6E-SP	2021-06-28	30.7	7.9	902	1.2	1.2	1.2
RSEM-R6E-SP	2021-06-29	32	8	906	1.4	1.3	1.4
RSEM-R6E-SP	2021-06-30	28.6	7.7	909	1.6	1.8	1.6
RSEM-R6E-SP	2021-07-01	26.5	8.4	898	1.4	1.4	1.4
RSEM-R6E-SP	2021-07-02	26.4	8.2	912	1.8	1.8	1.8
RSEM-R6E-SP	2021-07-03	21.4	7.9	912	1.7	1.8	1.7
RSEM-R6E-SP	2021-07-04	24.9	8.3	902	1.7	1.7	1.7
RSEM-R6E-SP	2021-07-05	21.1	8	896	1.8	1.8	1.8
RSEM-R6E-SP	2021-07-06	24.1	8.2	867	1.8	1.8	1.8
RSEM-R6E-SP	2021-07-07	26.4	8.4	868	2.3	2.3	2.3
RSEM-R6E-SP	2021-07-08	26.6	8.8	935	2.5	2.5	2.5
RSEM-R6E-SP	2021-07-09	24.7	8.9	963	2.2	2.2	2.2
RSEM-R6E-SP	2021-07-10	21.2	8.5	973	2.2	2.2	2.2
RSEM-R6E-SP	2021-07-11	24.2	8.8	959	2.9	2.9	2.9
RSEM-R6E-SP	2021-07-12	19.5	8.9	977	3.3	3.3	3.3
RSEM-R6E-SP	2021-07-13	26.7	9.3	1023	1.7	1.6	1.7
RSEM-R6E-SP	2021-07-14	25.2	9.4	1020	1	0.9	1
RSEM-R6E-SP	2021-07-15	24.8	7.2	957	1.4	1.4	1.4
RSEM-R6E-SP	2021-07-16	19.2	7	993	1.2	1.2	1.2
RSEM-R6E-SP	2021-07-29	22.8	8.7	1010	2.3	2.3	2.3
RSEM-R6E-SP	2021-07-30	23.4	8.6	982	2.3	2.3	2.3
RSEM-R6E-SP	2021-07-31	25.1	8.8	977	2.9	2.9	2.9
RSEM-R6E-SP	2021-08-01	22.2	8.8	969	2.3	2.3	2.3
RSEM-R6E-SP	2021-12-05	0.8	8.5	1160	3.2	3.2	3.2

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6E-SP	2021-12-06	2.4	8.1	1188	3.4	3.4	3.4
RSEM-R6E-SP	2021-12-12	0.7	8	1223	2.4	2.4	2.4
RSEM-R6E-SP	2021-12-13	0	8.1	1108	2.8	2.8	2.8
RSEM-R6E-SP	2021-12-14	1.9	7.9	1249	3.8	3.8	3.8
RSEM-R6E-SP	2021-12-15	0.5	7.9	1009	2	2	2
RSEM-R6E-SP	2021-12-16	-0.1	8	1415	2.7	2.7	2.7
RSEM-R6E-SP	2021-12-17	0	8	1389	2.7	2.7	2.7
RSEM-R6E-SP	2021-12-18	0.8	7.8	1201	1.9	1.9	1.9
RSEM-R6E-SP	2021-12-19	1.7	7.8	1475	5.3	5.3	5.3
RSEM-R6E-SP	2021-12-20	0.8	7.8	1385	3	3	3
RSEM-R6E-SP	2021-12-21	0.2	7.9	1358	4	4	4
RSEM-R6E-SP	2021-12-22	0	7.9	1350	2.4	2.4	2.4
RSEM-R6E-SP	2021-12-23	7	8.3	1207	6.2	6.2	6.2
RSEM-R6E-SP	2021-12-24	1.6	8.3	1260	2.2	2.2	2.2
RSEM-R6E-SP	2021-12-25	0.2	8.1	1253	4.7	4.7	4.7
RSEM-R6E-SP	2021-12-26	-0.4	7.9	1309	4.7	4.7	4.7
RSEM-R6E-SP	2021-12-27	-0.1	7.8	1364	2.5	2.5	2.5
RSEM-R6E-SP	2021-12-28	0.3	7.5	1462	2.7	2.7	2.7
RSEM-R6E-SP	2021-12-29	2.1	7.7	1480	3	3	3
RSEM-R6E-SP-US	2021-03-27	3.5	8.2	654	3011	2983	3011
RSEM-R6E-SP-US	2021-05-27	14	8.2	1027	5.1	5.1	5.1
RSEM-R6E-SP-US	2021-06-15	16.8	8.2	880	2.8	2.8	2.8
RSEM-R6E-SP-US	2021-06-16	13.7	8	2600	OR	OR	OR
RSEM-R6E-SP-US	2021-06-19	22.3	8.2	919	8.5	8.5	8.5
RSEM-R6E-SP-US	2021-07-10	18.5	8.5	864	4.5	4.5	4.5
RSEM-R6E-SP-US	2021-08-12	24.1	8.3	823	2.6	2.6	2.6
RSEM-R6W-EOP	2021-01-01	1.5	6.8	1588	4.9	4.9	4.9
RSEM-R6W-EOP	2021-01-02	2	7	1573	4.4	4.5	4.4
RSEM-R6W-EOP	2021-01-03	0.7	7.5	1563	4.5	4.6	4.5
RSEM-R6W-EOP	2021-01-04	1.4	7.9	1509	5	5.1	5
RSEM-R6W-EOP	2021-01-05	0.3	8	1481	4.9	4.8	4.9
RSEM-R6W-EOP	2021-01-06	1.3	7.6	1568	5.9	5.8	5.9
RSEM-R6W-EOP	2021-01-07	0.9	7.9	1582	2.9	2.9	2.9
RSEM-R6W-EOP	2021-01-08	0.3	7.5	1547	3.2	3.2	3.2
RSEM-R6W-EOP	2021-01-09	0.7	7.4	1580	3	3	3
RSEM-R6W-EOP	2021-01-10	0.8	7.8	1565	6.2	6.2	6.2
RSEM-R6W-EOP	2021-01-11	1.1	7.4	1556	5.4	5.3	5.4
RSEM-R6W-EOP	2021-01-12	1.1	7.3	1550	4.6	4.6	4.6
RSEM-R6W-EOP	2021-01-13	1.3	7.2	1540	3.6	3.6	3.6
RSEM-R6W-EOP	2021-01-15	1.9	7.9	1493	6.6	6.6	6.6
RSEM-R6W-EOP	2021-01-16	2.5	7.4	1445	5.6	5.5	5.6
RSEM-R6W-EOP	2021-01-17	1.4	7.9	1453	4	4	4
RSEM-R6W-EOP	2021-01-18	1.8	8	1427	3.5	3.6	3.5
RSEM-R6W-EOP	2021-01-19	2.6	7.9	1328	4.3	4.3	4.3
RSEM-R6W-EOP	2021-01-20	2.4	7.7	1329	5.1	5.1	5.1
RSEM-R6W-EOP	2021-01-14	0.5	7.5	1516	2.6	2.6	2.6
RSEM-R6W-EOP	2021-01-21	1.4	7.9	1370	3.9	3.9	3.9
RSEM-R6W-EOP	2021-01-22	1.6	7.9	1421	3.8	3.8	3.8
RSEM-R6W-EOP	2021-01-23	0.6	8.1	1455	4.2	4.2	4.2
RSEM-R6W-EOP	2021-01-24	1.4	8	1491	5.4	5.4	5.4
RSEM-R6W-EOP	2021-01-25	1.1	8.1	1559	4.6	4.6	4.6
RSEM-R6W-EOP	2021-02-07	-0.1	8.4	1514	4.8	4.9	4.8
RSEM-R6W-EOP	2021-02-08	-0.1	8.2	1458	5.4	5.4	5.4
RSEM-R6W-EOP	2021-02-09	0.2	8.4	1362	4.5	4.4	4.5
RSEM-R6W-EOP	2021-02-10	0.9	7.5	1300	4.4	4.4	4.4
RSEM-R6W-EOP	2021-02-11	0.6	7.5	1250	4.5	4.6	4.5
RSEM-R6W-EOP	2021-02-12	0.6	7.8	1234	4.7	4.7	4.7
RSEM-R6W-EOP	2021-02-13	0	7.8	1223	5.2	5.2	5.2
RSEM-R6W-EOP	2021-02-14	0	7.7	1217	4.4	4.4	4.4
RSEM-R6W-EOP	2021-02-16	0.8	7.8	1310	5	5	5
RSEM-R6W-EOP	2021-02-17	0.8	7.2	1160	5.8	5.8	5.8
RSEM-R6W-EOP	2021-02-06	5	8.2	1539	4.6	4.7	4.6
RSEM-R6W-EOP	2021-02-18	1.5	7.8	1286	7.5	7.5	7.5
RSEM-R6W-EOP	2021-02-19	1.6	7.5	1251	7.7	7.7	7.7
RSEM-R6W-EOP	2021-02-20	1.8	7.5	1236	5.4	5.4	5.4
RSEM-R6W-EOP	2021-02-21	1.5	7.6	1280	6.5	6.7	6.5
RSEM-R6W-EOP	2021-02-22	1.1	7.9	1345	8	8.1	8
RSEM-R6W-EOP	2021-02-15	3.8	7.4	1221	5.7	5.4	5.7
RSEM-R6W-EOP	2021-02-26	0.5	8	1122	6.4	6.4	6.4
RSEM-R6W-EOP	2021-02-27	0.4	8.2	1415	7.8	7.8	7.8
RSEM-R6W-EOP	2021-02-28	3.2	8.2	1503	6.9	7	6.9
RSEM-R6W-EOP	2021-03-01	0.9	8.4	999	20.2	19.9	20.2
RSEM-R6W-EOP	2021-03-02	3.7	8.5	770	22.9	22.9	22.9
RSEM-R6W-EOP	2021-03-03	3.2	8.5	759	31.2	31.2	31.2
RSEM-R6W-EOP	2021-02-25	1.8	7.9	1305	6.7	6.8	6.7
RSEM-R6W-EOP	2021-03-04	3.1	8.5	600	24.1	24.3	24.1
RSEM-R6W-EOP	2021-03-05	5	8.4	766	35.8	36.1	35.8
RSEM-R6W-EOP	2021-03-06	2.9	8.4	742	23.6	23.5	23.6
RSEM-R6W-EOP	2021-03-09	4.4	7.5	630	17.8	17.8	17.8
RSEM-R6W-EOP	2021-03-10	2.5	8.2	729	8.1	8	8.1
RSEM-R6W-EOP	2021-03-11	3.7	8.2	780	7.2	7.1	7.2
RSEM-R6W-EOP	2021-03-12	4.1	7.9	745	4.2	4.1	4.2
RSEM-R6W-EOP	2021-03-13	3.5	8.1	742	8.1	8.3	8.1
RSEM-R6W-EOP	2021-03-14	3.7	8.2	665	23.6	23.6	23.6
RSEM-R6W-EOP	2021-03-15	2.2	8.3	739	28.2	28	28.2
RSEM-R6W-EOP	2021-03-16	6.3	8.2	680	23.2	23.2	23.2
RSEM-R6W-EOP	2021-03-08	3.1	8.5	650	15.8	15.8	15.8
RSEM-R6W-EOP	2021-03-17	3.8	7.9	692	13	13.1	13
RSEM-R6W-EOP	2021-03-18	3.8	8.4	700	17.6	17.7	17.6
RSEM-R6W-EOP	2021-03-20	3.4	8.5	582	8.5	8.5	8.5
RSEM-R6W-EOP	2021-03-21	2	8	589	7.8	7.8	7.8
RSEM-R6W-EOP	2021-03-22	3.1	8.1	603	8.8	8.7	8.8
RSEM-R6W-EOP	2021-03-19	4.4	8.2	675	18.5	18.4	18.5
RSEM-R6W-EOP	2021-03-23	2.4	8.2	600	6.9	6.9	6.9
RSEM-R6W-EOP	2021-03-24	2.3	8.2	550	13.8	13.9	13.8
RSEM-R6W-EOP	2021-03-25	4.9	8.2	552	11.1	11.4	11.1
RSEM-R6W-EOP	2021-03-26	6.2	8.2	570	10.6	11.1	10.6
RSEM-R6W-EOP	2021-03-27	5	8.3	575	19.3	19.7	19.3
RSEM-R6W-EOP	2021-03-28	4.1	8.2	582	13.8	13.8	13.8
RSEM-R6W-EOP	2021-03-29	1.2	8	500	7.3	7.3	7.3
RSEM-R6W-EOP	2021-03-30	4.1	8.2	655	6.5	6.3	6.5
RSEM-R6W-EOP	2021-03-31	4.5	8.3	629	11.1	11.3	11.1
RSEM-R6W-EOP	2021-04-01	5.1	8.2	623	20.9	21.2	20.9
RSEM-R6W-EOP	2021-04-02	4.7	8.1	648	17.6	17.6	17.6
RSEM-R6W-EOP	2021-04-03	5.6	8.3	691	25.6	26	25.6
RSEM-R6W-EOP	2021-04-04	5.9	8.3	693	21.2	21.4	21.2
RSEM-R6W-EOP	2021-04-05	5.2	7.8	640	20.1	19.1	20.1
RSEM-R6W-EOP	2021-04-06	5.3	8.1	612	17.6	17.7	17.6
RSEM-R6W-EOP	2021-04-07	5.1	8	607	20.4	20.8	20.4
RSEM-R6W-EOP	2021-04-08	4.5	8.2	599	17	17.3	17

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6W-EOP	2021-04-09	5.4	8.2	619	18.2	18.4	18.2
RSEM-R6W-EOP	2021-04-10	3.6	8.6	557	17.2	17.3	17.2
RSEM-R6W-EOP	2021-04-11	4.6	8.5	631	19.1	18.6	19.1
RSEM-R6W-EOP	2021-04-12	5.5	8.3	624	28.3	28.5	28.3
RSEM-R6W-EOP	2021-04-14	10	8.3	569	50.2	50.5	50.2
RSEM-R6W-EOP	2021-04-13	8.6	8.3	571	45	45	45
RSEM-R6W-EOP	2021-04-17	11.3	8.3	917	25.4	24.5	25.4
RSEM-R6W-EOP	2021-04-18	10.1	8.3	543	21.5	21.5	21.5
RSEM-R6W-EOP	2021-04-19	9	8.6	547	24.8	24.8	24.8
RSEM-R6W-EOP	2021-04-28	3.8	8.3	562	9.3	9.5	9.3
RSEM-R6W-EOP	2021-04-29	4.3	8	585	9.7	10	9.7
RSEM-R6W-EOP	2021-04-26	3	8.2	555	11.6	11.6	11.6
RSEM-R6W-EOP	2021-04-25	9	8.9	552	17.3	17.3	17.3
RSEM-R6W-EOP	2021-04-24	8	8.2	547	17.7	17.7	17.7
RSEM-R6W-EOP	2021-04-20	8	8.6	529	25.4	25.4	25.4
RSEM-R6W-EOP	2021-04-21	9	8.5	583	25.3	25.3	25.3
RSEM-R6W-EOP	2021-04-22	2	8.5	537	30.8	30.8	30.8
RSEM-R6W-EOP	2021-04-30	8.5	8.3	601	15.6	15.5	15.6
RSEM-R6W-EOP	2021-05-01	10.3	8.4	594	8.7	8.8	8.7
RSEM-R6W-EOP	2021-05-02	11.7	8.5	534	5.4	5.4	5.4
RSEM-R6W-EOP	2021-05-03	9.3	8.7	548	19.7	18.9	19.7
RSEM-R6W-EOP	2021-05-04	12.8	7.8	556	19.7	19.5	19.7
RSEM-R6W-EOP	2021-05-05	13.6	7.7	599	14.4	14.5	14.4
RSEM-R6W-EOP	2021-05-06	13.2	8	621	25	24.8	25
RSEM-R6W-EOP	2021-05-07	10.5	8.2	640	26	25.9	26
RSEM-R6W-EOP	2021-05-08	11.7	8	652	18.1	18.4	18.1
RSEM-R6W-EOP	2021-05-09	12.3	8.2	677	15.1	15.2	15.1
RSEM-R6W-EOP	2021-05-10	10.6	8.1	667	11.8	11.8	11.8
RSEM-R6W-EOP	2021-05-11	11.6	8	702	11.1	11.3	11.1
RSEM-R6W-EOP	2021-05-12	12.8	8.2	674	11.6	11.7	11.6
RSEM-R6W-EOP	2021-05-13	12.9	8	643	8.7	8.9	8.7
RSEM-R6W-EOP	2021-05-14	12.7	8	629	9.1	9	9.1
RSEM-R6W-EOP	2021-05-15	14.5	8.2	654	11.1	11	11.1
RSEM-R6W-EOP	2021-05-16	14.4	8.3	632	7.5	7.3	7.5
RSEM-R6W-EOP	2021-05-17	13	8.4	611	8.1	8.2	8.1
RSEM-R6W-EOP	2021-05-18	11.3	8.4	640	24.4	24.9	24.4
RSEM-R6W-EOP	2021-05-19	12.4	8.1	680	13.5	13.5	13.5
RSEM-R6W-EOP	2021-05-20	13.5	8	695	7.4	7.4	7.4
RSEM-R6W-EOP	2021-05-21	14.1	8.2	699	8.7	8.8	8.7
RSEM-R6W-EOP	2021-05-22	13.7	8	697	8	8.4	8
RSEM-R6W-EOP	2021-05-23	16.8	8.4	708	5.6	5.5	5.6
RSEM-R6W-EOP	2021-05-24	16.4	7.9	668	5.6	5.5	5.6
RSEM-R6W-EOP	2021-05-25	12.3	7.7	659	8.6	8.5	8.6
RSEM-R6W-EOP	2021-05-26	17.4	8.1	750	22.3	22.1	22.3
RSEM-R6W-EOP	2021-05-27	17.8	7.7	787	14.1	14	14.1
RSEM-R6W-EOP	2021-05-29	14.4	8	787	5.7	5.7	5.7
RSEM-R6W-EOP	2021-05-30	15.7	7.8	836	5.8	5.8	5.8
RSEM-R6W-EOP	2021-05-31	13.5	8	381	6.9	6.8	6.9
RSEM-R6W-EOP	2021-06-01	16.9	8.1	816	8.9	8.8	8.9
RSEM-R6W-EOP	2021-05-28	14.9	7.8	281	7.2	7.3	7.2
RSEM-R6W-EOP	2021-06-02	19.5	8.3	871	5.6	5.5	5.6
RSEM-R6W-EOP	2021-06-03	18.6	8.1	898	9.4	9.4	9.4
RSEM-R6W-EOP	2021-06-04	17.1	8.4	799	8.4	8.2	8.4
RSEM-R6W-EOP	2021-06-05	16.7	8.2	717	5.9	5.8	5.9
RSEM-R6W-EOP	2021-06-06	16.1	8.2	654	7	6.9	7
RSEM-R6W-EOP	2021-06-07	15.4	8	617	7.5	7.5	7.5
RSEM-R6W-EOP	2021-06-08	15.7	8.1	649	11.3	11.4	11.3
RSEM-R6W-EOP	2021-06-09	17	8.4	669	9.8	9.8	9.8
RSEM-R6W-EOP	2021-06-10	17.4	8.2	715	8.5	8.6	8.5
RSEM-R6W-EOP	2021-06-11	17.6	8.4	718	7.2	7.1	7.2
RSEM-R6W-EOP	2021-06-12	16.3	8.1	702	7.4	7.3	7.4
RSEM-R6W-EOP	2021-06-13	17	8.3	678	7.9	7.9	7.9
RSEM-R6W-EOP	2021-06-14	16.8	7.3	630	8.6	8.6	8.6
RSEM-R6W-EOP	2021-06-15	15.7	8.1	582	8.1	8.2	8.1
RSEM-R6W-EOP	2021-06-16	14.3	8	535	10.7	10.7	10.7
RSEM-R6W-EOP	2021-06-17	13.5	8.2	605	22.3	22.2	22.3
RSEM-R6W-EOP	2021-06-18	15.3	8	705	12.1	12.1	12.1
RSEM-R6W-EOP	2021-06-19	15.4	7.9	688	10.5	10.5	10.5
RSEM-R6W-EOP	2021-06-20	16.3	8	617	8.4	8.4	8.4
RSEM-R6W-EOP	2021-06-21	16.3	8	579	8.8	8.8	8.8
RSEM-R6W-EOP	2021-06-22	23.2	8.2	514	6.4	6.4	6.4
RSEM-R6W-EOP	2021-06-23	19	8.3	521	9.2	9.2	9.2
RSEM-R6W-EOP	2021-06-24	19.9	8.4	461	10.4	10.5	10.4
RSEM-R6W-EOP	2021-06-25	19.7	8.3	460	10.2	10.1	10.2
RSEM-R6W-EOP	2021-06-26	24.1	8.2	424	7.6	7.6	7.6
RSEM-R6W-EOP	2021-06-27	21.4	8.2	453	6.3	6.2	6.3
RSEM-R6W-EOP	2021-06-28	22.8	8.2	473	8.3	8.4	8.3
RSEM-R6W-EOP	2021-06-29	23.7	8	457	6.4	6.3	6.4
RSEM-R6W-EOP	2021-06-30	22.1	7.8	443	5.1	5.1	5.1
RSEM-R6W-EOP	2021-07-01	20.7	8.2	451	4.8	4.8	4.8
RSEM-R6W-EOP	2021-07-02	22	8	459	6.7	6.7	6.7
RSEM-R6W-EOP	2021-07-03	17.6	8	441	6.3	6.3	6.3
RSEM-R6W-EOP	2021-07-04	20.6	8.1	478	6	6	6
RSEM-R6W-EOP	2021-07-05	17.3	8.3	504	5.5	5.4	5.5
RSEM-R6W-EOP	2021-07-06	19.1	8	469	4.6	4.5	4.6
RSEM-R6W-EOP	2021-07-07	21.1	7.8	483	4.9	4.8	4.9
RSEM-R6W-EOP	2021-07-08	20.1	7.8	585	4.4	4.4	4.4
RSEM-R6W-EOP	2021-07-09	20.3	8.6	574	4	4	4
RSEM-R6W-EOP	2021-07-10	19.8	8.7	581	3.8	3.8	3.8
RSEM-R6W-EOP	2021-07-11	19.6	8.6	617	4.5	4.5	4.5
RSEM-R6W-EOP	2021-07-12	18.2	8.7	635	4.3	4.3	4.3
RSEM-R6W-EOP	2021-07-13	25	8.7	663	3.1	3	3.1
RSEM-R6W-EOP	2021-07-14	22.6	8.8	705	2.9	3	2.9
RSEM-R6W-EOP	2021-07-15	23.6	8.7	640	5.6	5.6	5.6
RSEM-R6W-EOP	2021-07-16	16.9	8.6	584	4.3	4.2	4.3
RSEM-R6W-EOP	2021-07-17	15.5	8.6	587	8.1	8.1	8.1
RSEM-R6W-EOP	2021-07-18	15.6	8.6	641	8.2	8.2	8.2
RSEM-R6W-EOP	2021-07-19	17.8	8.6	660	6.1	6	6.1
RSEM-R6W-EOP	2021-07-20	15.4	8.4	651	4.6	4.6	4.6
RSEM-R6W-EOP	2021-07-21	17.5	8.5	636	9.4	9.4	9.4
RSEM-R6W-EOP	2021-07-22	16.6	8.2	952	16	16	16
RSEM-R6W-EOP	2021-07-23	16.9	8.5	702	11.1	11.2	11.1
RSEM-R6W-EOP	2021-07-24	18.4	8.4	755	5.9	5.7	5.9
RSEM-R6W-EOP	2021-07-25	18.7	8.4	821	5.6	5.6	5.6
RSEM-R6W-EOP	2021-07-26	16.6	8.4	878	5	5	5
RSEM-R6W-EOP	2021-07-27	17.4	8.5	816	4.2	4.2	4.2
RSEM-R6W-EOP	2021-07-29	18.9	8.5	724	5.8	5.8	5.8
RSEM-R6W-EOP	2021-07-30	18.2	8.5	690	6.4	6.4	6.4
RSEM-R6W-EOP	2021-07-31	19.9	8.4	684	7.1	7.1	7.1
RSEM-R6W-EOP	2021-08-01	19.8	8.3	704	5.5	5.5	5.5

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6W-EOP	2021-08-02	19.1	8.3	736	6.3	6.3	6.3
RSEM-R6W-EOP	2021-08-03	20	8.2	806	5.2	5.2	5.2
RSEM-R6W-EOP	2021-08-04	21.9	8.3	807	5.1	5.2	5.1
RSEM-R6W-EOP	2021-08-05	21	8.4	810	4.6	4.7	4.6
RSEM-R6W-EOP	2021-08-06	20.4	8.3	820	7	7	7
RSEM-R6W-EOP	2021-08-07	17.9	8.4	862	3.4	3.4	3.4
RSEM-R6W-EOP	2021-08-08	19.4	8.5	903	3.7	3.7	3.7
RSEM-R6W-EOP	2021-08-09	17.9	8.5	930	4.9	4.8	4.9
RSEM-R6W-EOP	2021-08-10	16.8	8.5	891	2.7	2.7	2.7
RSEM-R6W-EOP	2021-08-11	18.1	8.6	933	2.6	2.6	2.6
RSEM-R6W-EOP	2021-08-12	18.2	8.6	768	2	2	2
RSEM-R6W-EOP	2021-08-13	18.9	8.6	759	2.2	2.2	2.2
RSEM-R6W-EOP	2021-08-14	19.5	8.5	749	3.1	3.1	3.1
RSEM-R6W-EOP	2021-08-15	19.8	8.6	740	2.5	2.5	2.5
RSEM-R6W-EOP	2021-08-16	18	8.6	743	2.6	2.6	2.6
RSEM-R6W-EOP	2021-08-17	18	8.6	637	2.3	2.3	2.3
RSEM-R6W-EOP	2021-08-18	17.6	8.7	720	2.3	2.3	2.3
RSEM-R6W-EOP	2021-08-19	18.7	8.7	718	2.1	2.1	2.1
RSEM-R6W-EOP	2021-08-20	18.1	8.7	752	2.3	2.3	2.3
RSEM-R6W-EOP	2021-08-21	17.1	8.6	660	2.8	2.8	2.8
RSEM-R6W-EOP	2021-08-22	14.6	8.6	509	18.2	18.3	18.2
RSEM-R6W-EOP	2021-08-23	13.4	8.4	671	13.2	13.2	13.2
RSEM-R6W-EOP	2021-08-24	17.1	8.3	780	8.1	8	8.1
RSEM-R6W-EOP	2021-08-25	18.1	8.5	837	5.2	5.1	5.2
RSEM-R6W-EOP	2021-08-26	14.9	8.5	878	4.3	4.2	4.3
RSEM-R6W-EOP	2021-08-27	15.8	8.4	908	3.9	3.9	3.9
RSEM-R6W-EOP	2021-08-28	16.3	8.4	897	3.9	3.8	3.9
RSEM-R6W-EOP	2021-08-29	16.3	8.3	882	4.6	4.5	4.6
RSEM-R6W-EOP	2021-08-31	15.2	8.4	904	5.5	5.2	5.5
RSEM-R6W-EOP	2021-09-01	15.3	8.4	935	3.7	3.6	3.7
RSEM-R6W-EOP	2021-09-02	14.2	8.4	960	2.8	2.8	2.8
RSEM-R6W-EOP	2021-09-03	15.3	8.5	951	2.7	2.6	2.7
RSEM-R6W-EOP	2021-09-04	16	8.5	892	2.5	2.5	2.5
RSEM-R6W-EOP	2021-09-05	16	8.7	934	2.9	2.8	2.9
RSEM-R6W-EOP	2021-09-06	16.2	8.6	903	3.6	3.5	3.6
RSEM-R6W-EOP	2021-09-07	15.2	8.7	814	2.5	2.5	2.5
RSEM-R6W-EOP	2021-09-08	14.8	8.7	769	3	3	3
RSEM-R6W-EOP	2021-09-09	15.1	8.6	745	2.4	2.4	2.4
RSEM-R6W-EOP	2021-09-10	14.4	8.7	727	2.4	2.4	2.4
RSEM-R6W-EOP	2021-09-12	15.7	7.9	743	2.5	2.5	2.5
RSEM-R6W-EOP	2021-09-13	13.5	8.4	739	2.8	2.8	2.8
RSEM-R6W-EOP	2021-09-14	13.9	8.7	784	3.7	3.7	3.7
RSEM-R6W-EOP	2021-09-15	12.4	8.5	793	4.6	4.7	4.6
RSEM-R6W-EOP	2021-09-16	12.2	8.5	822	5.4	5.4	5.4
RSEM-R6W-EOP	2021-09-17	11	8.5	834	4.5	4.6	4.5
RSEM-R6W-EOP	2021-09-18	11.4	8.4	793	5.9	6	5.9
RSEM-R6W-EOP	2021-09-19	12.5	8.5	766	6.3	6.3	6.3
RSEM-R6W-EOP	2021-09-20	11.1	8.3	747	4.7	4.7	4.7
RSEM-R6W-EOP	2021-09-21	12.2	8.6	723	4.8	4.7	4.8
RSEM-R6W-EOP	2021-09-22	12.4	8.4	688	4.4	4.3	4.4
RSEM-R6W-EOP	2021-09-23	11.9	8.7	667	4.3	4.2	4.3
RSEM-R6W-EOP	2021-09-24	12.7	8.8	659	4.2	4.2	4.2
RSEM-R6W-EOP	2021-09-25	13.5	8.7	643	4	4.1	4
RSEM-R6W-EOP	2021-09-27	11.3	8.5	642	3.2	3.4	3.2
RSEM-R6W-EOP	2021-09-28	11.2	8.5	595	4.5	4.5	4.5
RSEM-R6W-EOP	2021-09-29	10.4	8.3	589	5.6	5.6	5.6
RSEM-R6W-EOP	2021-09-30	11.2	7.1	662	7.1	7.2	7.1
RSEM-R6W-EOP	2021-10-01	10.8	8.1	597	5.3	5.3	5.3
RSEM-R6W-EOP	2021-10-02	10.2	8.2	604	5.8	5.8	5.8
RSEM-R6W-EOP	2021-10-03	10	8.1	607	4	4	4
RSEM-R6W-EOP	2021-10-04	7.4	8.3	611	3.9	3.9	3.9
RSEM-R6W-EOP	2021-10-05	7.5	8.2	646	4.3	4.3	4.3
RSEM-R6W-EOP	2021-10-06	6.9	8	651	3.2	3.2	3.2
RSEM-R6W-EOP	2021-10-07	7.3	8.3	648	3.2	3.3	3.2
RSEM-R6W-EOP	2021-10-08	7.2	8	652	3	3	3
RSEM-R6W-EOP	2021-10-09	8	8.6	478	4.3	4.2	4.3
RSEM-R6W-EOP	2021-10-10	7.6	7.9	629	2.9	2.9	2.9
RSEM-R6W-EOP	2021-10-11	8.2	7.8	630	3.2	3.2	3.2
RSEM-R6W-EOP	2021-10-12	6.1	7.7	608	3.2	3.2	3.2
RSEM-R6W-EOP	2021-09-26	12.3	8.7	642	3.5	3.6	3.5
RSEM-R6W-EOP	2021-10-13	6.2	7.6	556	3.9	3.9	3.9
RSEM-R6W-EOP	2021-10-14	6.1	8.4	581	3.9	3.9	3.9
RSEM-R6W-EOP	2021-10-15	6.9	8.5	605	4.1	4.1	4.1
RSEM-R6W-EOP	2021-10-16	6.1	8.2	617	3.6	3.7	3.6
RSEM-R6W-EOP	2021-10-17	5.9	8	639	4.8	4.8	4.8
RSEM-R6W-EOP	2021-10-18	4.7	8.2	652	4.8	4.8	4.8
RSEM-R6W-EOP	2021-10-19	4.9	7.9	590	5.3	5.3	5.3
RSEM-R6W-EOP	2021-10-20	4.9	7.7	591	4.3	4.3	4.3
RSEM-R6W-EOP	2021-10-21	4.2	7.9	591	4.6	4.6	4.6
RSEM-R6W-EOP	2021-10-22	5.1	8.4	562	4.8	4.8	4.8
RSEM-R6W-EOP	2021-10-23	5.2	8.3	540	5.6	5.6	5.6
RSEM-R6W-EOP	2021-10-24	5.4	8.2	510	5.8	5.8	5.8
RSEM-R6W-EOP	2021-10-25	5.9	8.1	509	6.3	6.3	6.3
RSEM-R6W-EOP	2021-10-26	5.4	7.6	543	6.4	6.4	6.4
RSEM-R6W-EOP	2021-10-27	6.2	8.4	553	5	5.1	5
RSEM-R6W-EOP	2021-10-28	5.7	8.4	551	5.4	5.5	5.4
RSEM-R6W-EOP	2021-10-29	3.7	8.6	582	6.6	6.6	6.6
RSEM-R6W-EOP	2021-10-30	2.8	8.4	587	5.8	5.8	5.8
RSEM-R6W-EOP	2021-10-31	3	8.3	603	5.2	5.1	5.2
RSEM-R6W-EOP	2021-11-01	4.9	8.6	604	5.3	5.3	5.3
RSEM-R6W-EOP	2021-11-02	4.3	8	612	5.7	5.8	5.7
RSEM-R6W-EOP	2021-11-03	4.2	8.1	610	5.8	5.8	5.8
RSEM-R6W-EOP	2021-11-04	4.1	7.9	614	5.6	5.6	5.6
RSEM-R6W-EOP	2021-11-05	4.1	7.8	603	6.9	6.8	6.9
RSEM-R6W-EOP	2021-11-06	4.2	8.2	600	5.4	5.3	5.4
RSEM-R6W-EOP	2021-11-07	3.9	8.3	606	5.2	5.2	5.2
RSEM-R6W-EOP	2021-11-08	4.1	8.1	644	5	5	5
RSEM-R6W-EOP	2021-11-09	3.3	8.2	613	4.1	4.1	4.1
RSEM-R6W-EOP	2021-11-10	2.9	7.9	623	5.9	5.9	5.9
RSEM-R6W-EOP	2021-11-11	2.5	7.8	644	5	5	5
RSEM-R6W-EOP	2021-11-12	3.1	7.8	651	6	6	6
RSEM-R6W-EOP	2021-11-13	4	7.8	664	6.1	6.1	6.1
RSEM-R6W-EOP	2021-11-14	3.1	7.6	651	5.3	5.3	5.3
RSEM-R6W-EOP	2021-11-15	2.3	7.7	667	5.6	5.6	5.6
RSEM-R6W-EOP	2021-11-16	2.1	7.9	747	5.8	5.8	5.8
RSEM-R6W-EOP	2021-11-17	1.9	7.7	789	6.7	6.7	6.7
RSEM-R6W-EOP	2021-11-18	2.1	7.7	805	8.1	8.1	8.1
RSEM-R6W-EOP	2021-11-19	2	8	826	7.6	7.6	7.6
RSEM-R6W-EOP	2021-11-20	1.4	7.8	830	8.4	8.3	8.4
RSEM-R6W-EOP	2021-11-21	0.5	8	834	8.2	8.2	8.2

Appendix 3-B: 2021 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	Temperature	pH-field	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		°Celsius	pH	uS/cm	NTU	NTU	NTU
RSEM-R6W-EOP	2021-11-22	1.8	8.1	845	8.1	8.1	8.1
RSEM-R6W-EOP	2021-11-23	0.9	8	842	7.8	7.8	7.8
RSEM-R6W-EOP	2021-11-24	6.7	7.8	813	8.8	8.9	8.8
RSEM-R6W-EOP	2021-11-25	3.6	7.6	771	11.1	11	11.1
RSEM-R6W-EOP	2021-11-26	3	7.9	786	11.1	11.1	11.1
RSEM-R6W-EOP	2021-11-27	1.6	7.6	785	9.8	9.8	9.8
RSEM-R6W-EOP	2021-11-28	3.8	7.4	769	12	11.9	12
RSEM-R6W-EOP	2021-11-29	2.2	7.9	813	9.1	9.1	9.1
RSEM-R6W-EOP	2021-11-30	3.1	7.6	812	8	8	8
RSEM-R6W-EOP	2021-12-01	2	7.4	806	9	9	9
RSEM-R6W-EOP	2021-12-02	1.9	7.5	804	9.5	9.5	9.5
RSEM-R6W-EOP	2021-12-03	0.6	7.6	834	8.4	8.4	8.4
RSEM-R6W-EOP	2021-12-04	0.7	7.6	849	8.6	8.6	8.6
RSEM-R6W-EOP	2021-12-05	2.4	7.6	859	8	8	8
RSEM-R6W-EOP	2021-12-06	1.3	7.4	851	7.9	7.9	7.9
RSEM-R6W-EOP	2021-12-07	3.8	7.6	877	7.6	7.6	7.6
RSEM-R6W-EOP	2021-12-08	3.2	7.9	898	6.8	6.8	6.8
RSEM-R6W-EOP	2021-12-09	1.9	7.7	875	7	7	7
RSEM-R6W-EOP	2021-12-10	1.8	8	912	7.6	7.6	7.6
RSEM-R6W-EOP	2021-12-11	4	7.5	867	6.5	6.5	6.5
RSEM-R6W-EOP	2021-12-12	1.6	7.9	1012	5.4	5.4	5.4
RSEM-R6W-EOP	2021-12-13	1.4	7.6	852	6.5	6.4	6.5
RSEM-R6W-EOP	2021-12-17	0.7	7.5	1103	6.1	6.3	6.1
RSEM-R6W-EOP	2021-12-18	2.1	7.1	941	10.7	10.7	10.7
RSEM-R6W-EOP	2021-12-19	4.6	7.4	1041	8	8	8
RSEM-R6W-EOP	2021-12-20	1.9	8	1063	11.8	11.7	11.8
RSEM-R6W-EOP	2021-12-21	1.6	7.5	1016	5.7	5.7	5.7
RSEM-R6W-EOP	2021-12-23	0.4	7.9	216	6.1	6	6.1
RSEM-R6W-EOP	2021-12-22	3.2	7.3	1021	5.9	5.9	5.9
RSEM-R6W-EOP	2021-12-24	1.7	7.6	939	5.5	5.5	5.5
RSEM-R6W-EOP	2021-12-25	-0.2	8.1	996	7.6	7.6	7.6
RSEM-R6W-EOP	2021-12-26	1.3	7.1	928	7	7	7
RSEM-R6W-EOP	2021-12-27	0.9	7.4	1014	5.7	5.7	5.7
RSEM-R6W-EOP	2021-12-28	3.2	7.4	1053	6.7	6.7	6.7
RSEM-R6W-EOP	2021-12-29	3.2	6.9	1051	6.7	6.7	6.7
RSEM-R6W-EOP	2021-12-31	3.8	7	1234	9.5	9.4	9.5
RSEM-R6W-SP	2021-02-05	0	8	1577	3.5	3.5	3.5
RSEM-R6W-SP	2021-04-15	14.2	8.3	525	49.6	49.3	49.6
RSEM-R6W-SP	2021-04-16	14.2	8.3	525	49.3	49.6	49.3
RSEM-R6W-SP	2021-04-16	16.1	8.3	552	25.9	26	25.9
RSEM-R6W-SP	2021-09-11	16.1	8.8	725	3.5	3.5	3.5
RSEM-R6W-SP	2021-12-14	3.8	7.4	1013	5	5	5
RSEM-R6W-SP	2021-12-15	1.3	7.6	1088	4.8	4.8	4.8
RSEM-R6W-SP	2021-12-16	1.2	7.6	1083	4.3	4.3	4.3
South_Crusher_Sump	2021-11-03	10	7.9	398	3.4	3.3	3.4
South_Crusher_Sump	2021-11-04	9.6	7.9	393	7	7	7
South_Crusher_Sump	2021-11-05	7.6	8	445	3.9	3.8	3.9
South_Crusher_Sump	2021-11-06	5	8.1	434	3.3	3.3	3.3
South_Crusher_Sump	2021-11-07	8.7	8.1	451	15.5	15.3	15.5
South_Crusher_Sump	2021-11-08	8.1	8.2	443	1.9	1.8	1.9
South_Crusher_Sump	2021-11-09	4.7	7.9	450	7.7	7.7	7.7
South_Crusher_Sump	2021-11-10	7.1	7.9	435	1.7	1.7	1.7
South_Crusher_Sump	2021-11-11	5.9	7.9	430	9.6	9.7	9.6
South_Crusher_Sump	2021-11-12	10.5	7.9	416	11.5	11.5	11.5
South_Crusher_Sump	2021-11-13	9.3	7.8	428	6.5	6.5	6.5
South_Crusher_Sump	2021-11-14	8.9	7.7	464	4.1	4.1	4.1
South_Crusher_Sump	2021-11-15	7.4	7.8	480	3.2	3.2	3.2
South_Crusher_Sump	2021-11-16	8.9	8	446	2.8	2.8	2.8
South_Crusher_Sump	2021-11-17	9.9	7.9	441	2.8	2.8	2.8
South_Crusher_Sump	2021-11-18	9.4	7.8	417	2.4	2.4	2.4
WP-DS	2021-01-14	2.2	8.4	360	3		3
WP-DS	2021-04-29	6.5	8.3	304	5	5	5
WP-DS	2021-05-22	8.6	8.3	181.1	11	11	11
WP-DS	2021-06-24	21.9	8.3	157	4.8	4.3	4.8
WP-DS	2021-10-09	10.1	8.5	210	3.1	3.1	3.1
WP-DS	2021-09-17	11.7	8.6	307	0.4	0.4	0.4
WP-US	2021-04-29	7	8.3	302	5.3	5.3	5.3
WP-US	2021-05-22	8.6	8.3	172.6	14	14	14
WP-US	2021-06-24	18.1	8.2	123	4.7	4.6	4.7
WP-US	2021-10-09	11.5	8.6	213	3.7	3.7	3.7
WP-US	2021-09-17	12.6	8.7	304	1.1	1	1.1

Note: OR- over range

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

PEACE RIVER
HYDRO PARTNERS

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
85-Discharge	1/23/2021 17:00	ZF1639	M	C105090				3.2															<0.010	0.346	0.346	
85-EOP	5/25/2021 14:30	ZW1247	M	C135423			1330	108																		
85-EOP	11/12/2021 13:40	AKS806	M	C188248			864	8.1																		
85-EOP	11/13/2021 14:00	AKS761	M	C188237			656	4.93																		
85-EOP	11/14/2021 15:00	AKS792	M	C188243			660	<1.0																		
85-EOP	11/15/2021 9:30	AKY314	M	C189131				2.0																		
85-IDZ	1/23/2021 17:00	ZF1642	M	C105090				37.9																		
85-IDZ	5/25/2021 15:00	ZW1248	M	C135423			628	308																		
85-IDZ	11/13/2021 14:30	AKS762	M	C188237			876	5.26																		
85-IDZ	11/14/2021 15:30	AKS793	M	C188243			696	85.7																		
85-IDZ	11/15/2021 9:00	AKY313	M	C189131				59.0																		
85-US	5/25/2021 15:20	ZW1249	M	C135423			524	87.8																		
AC_E_HAIRPIN_DITCH	3/17/2021 12:25	ZM7314	M	C117752	7.75	186	228	1740	399	79.7	54.3	<1.0	66.2	<1.0	<1.0	6.95	0.158	0.082	28.0			0.065	0.064	0.43	0.49	0.0149
AC-E-Hairpin-Sump	7/25/2021 13:00	ACO187	M	C153467	8.02	1280	908	4.0	499	500	255	<1.0	312	<1.0	<1.0	65.5	0.330	0.975	383			0.280	0.049	0.84	0.89	<0.0030
AC-E-HP-BT	6/19/2021 13:30	AAF586	M	C143352	8.22	1050	728	18.8	466	398	214	<1.0	262	<1.0	<1.0	68.4	0.300	0.970	241			0.146	0.034	0.88	0.91	0.0032
AC-E-Sump	3/20/2021 13:25	ZN1533	M	C118497	6.85	694	438	13.9	248	251	39.8	<1.0	48.5	<1.0	<1.0	27.3	0.704	0.223	249			0.260	0.11	0.54	0.65	<0.0030
AC-E-Sump	6/19/2021 13:40	AAF587	M	C143352	8.16	2720	2110	12.0	543	530	107	<1.0	130	<1.0	<1.0	124	1.44	2.20	1140			0.226	0.032	0.37	0.40	0.0033
AC-E-Sump	9/29/2021 17:00	AHF737	M	C174181	7.77	3800	2870	2.1	766	853	57.2	<1.0	69.8	<1.0	<1.0	116	1.28	1.81	1920			<0.015	0.015	0.075	0.091	<0.0030
AC-W-Hairpin-Sump	5/20/2021 13:15	ZV5700	M	C134406	8.13	991	596	8.2	457	446	222	<1.0	271	<1.0	<1.0	115	0.195	1.52	155			0.034	<0.010	0.94	0.94	<0.0030
AC-W-Sump	3/17/2021 12:55	ZM7315	M	C117752	7.60	1310	844	444	457	403	81.1	<1.0	98.9	<1.0	<1.0	86.3	1.01	0.263	460			0.613	0.073	0.71	0.78	0.0031
Area_23_BT	10/30/2021 13:10	AJO166	M	C184013	8.10	757	436	503	298	253	273	<1.0	333	<1.0	<1.0	50.0	0.089	0.727	46.8			0.319	<0.010	1.3	1.3	<0.0030
Area_23_BT	11/2/2021 11:30	AJU793	M	C184881	8.05	676	327	2540	565	248	227	<1.0	277	<1.0	<1.0	46.7	0.069	0.683	51.3			0.424	<0.010	1.2	1.2	0.0069
Area_23_BT	11/25/2021	FJ2101334-005	M	FJ2101334	8.18	856	490	274	214	182	299	<1.0	364	<1.0	<1.0	50.0	0.220	0.706	90.1			0.774	0.0913	1.42	1.51	<0.0010
Area_30_EOP	4/3/2021 15:50	ZO6454	M	C121575	7.19	523	327	5.3	239	242	55.0	<1.0	67.1	<1.0	<1.0	17.0	0.246	0.224	186			0.047	<0.010	0.041	0.041	<0.0030
Area_30_EOP	5/22/2021 13:05	ZV6992	M	C134601	7.92	1740	1540	8.4	1030	1030	102	<1.0	125	<1.0	<1.0	57.7	0.470	0.780	851			0.023	0.0095	0.234	0.243	<0.0030
Area_30_EOP	7/18/2021 11:00	ACC419	M	C151549	7.35	2700	2210	5.7	1760	1750	86.3	<1.0	105	<1.0	<1.0	71	0.596	1.04	1700			0.029	<0.010	0.015	0.015	<0.0030
Area_30_EOP	7/22/2021 15:55	ACL552	M	C152988	7.61	1580	1310	13.1	896	860	90.4	<1.0	110	<1.0	<1.0	49.7	0.458	0.752	754			0.031	<0.010	0.041	0.041	<0.0030
Area_30_EOP	8/7/2021 13:30	ADM462	M	C157545	6.94	1540	1280	2.5	964	850	56.9	<1.0	69.5	<1.0	<1.0	32.1	0.490	0.427	786			<0.015	<0.010	<0.050	<0.050	<0.0030
Area_30_EOP	10/7/2021 14:55	AHU815	M	C176559	7.87	2530	2440	7.8	1890	1700	107	<1.0	131	<1.0	<1.0	38.5	0.356	0.392	1550			<0.015	<0.010	<0.050	<0.050	<0.0030
Area_30_SP	6/10/2021 15:40	ZY8803	M	C140527	6.74	1830	1540	1.5	1030	1000	37.5	<1.0	45.7	<1.0	<1.0	59.3	0.482	0.755	990			0.056	<0.010	<0.010	<0.010	<0.0030
Area_30_SP	6/17/2021 15:00	AAC468	M	C142866	7.83	1750	1560	1.3	1060	1060	44.4	<1.0	54.2	<1.0	<1.0	49.0	0.449	0.633	942			0.019	<0.010	0.089	0.089	<0.0030
Area_30_SP	8/22/2021 15:30	AEI416	M	C161433	6.75	923	644	34.3	499	501	45.8	<1.0	55.8	<1.0	<1.0	28.0	0.370	0.407	386			0.062	<0.010	0.091	0.091	<0.0030
Area_30_SP	9/15/2021 12:35	AGD171	M	C169361	7.88	2440	2310	5.9	1750	1550	62.7	<1.0	76.5	<1.0	<1.0	35.7	0.425	0.359	1550			<0.015	<0.010	<0.050	<0.050	<0.0030
Area_30_SP	10/15/2021 14:15	AII745	M	C178993	8.13	2660	2600	22.0	1750	1830	125	<1.0	153	<1.0	<1.0	37.8	0.450	0.401	1640			<0.015	<0.0050	<0.020	<0.020	<0.0030
Area_30_SP	11/5/2021 12:40	AKA068	M	C185757	7.26	478	304	1.49	238	241	25.3	<1.0	30.9	<1.0	<1.0	5.45	0.107	0.071	201			0.031	<0.010	0.25	0.25	0.0038
Area_A_N_Ditch	3/18/2021 9:30	ZM8872	M	C118063	7.45	214	166	51.6	94.4	91.3	73.0	<1.0	89.1	<1.0	<1.0	11.2	0.151	0.102	17.0			0.094	0.051	0.53	0.58	<0.0030
Area_A_N_Ditch	5/2/2021 14:00	ZS6048	M	C129102	7.98	467	256	18.5	240	220	193	<1.0	235	<1.0	<1.0	6.43	0.215	0.046	45.4			0.041	<0.010	0.55	0.55	<0.0030
Area_A_N_Ditch	7/24/2021 13:55	ACO405	M	C153513	8.10	501	360	1.9	258	241	260	<1.0	317	<1.0	<1.0	8.71	0.167	0.044	45.4			0.041	<0.010	0.54	0.54	<0.0030
Area_A_N_Ditch	8/29/2021 11:20	AEV015	M	C163786	7.85	572	360	2.1	280	280	266	<1.0	325	<1.0	<1.0	11.1	0.164	0.072	69.7			0.016	<0.010	0.65	0.65	<0.0030
Area_A_N_Ditch	9/20/2021 11:50	AGM224	M	C170680	8.14	546	328	2.1	287	273	224	<1.0	273	<1.0	<1.0	13.0	0.204	0.065	68.4			0.082	<0.010	0.40	0.40	<0.0030
Area_A_N_Ditch	10/9/2021 13:50	AHX008	M	C176838	8.18	499	306	4.4	271	255	202	<1.0	246	<1.0	<1.0	10.6	0.190	0.035	58.9			<0.015	<0.0050	0.413	0.413	<0.0030
Area_A_N_Ditch	10/28/2021 13:45	AJL913	M	C183658	8.04	476	284	1.13	243	231	210	<1.0	257	<1.0	<1.0	5.52	0.158	<0.010	36.4			<0.015	<0.010	0.68	0.68	0.0033
Area_A_NE_Sump	11/4/2021 14:35	AKA063	M	C185756				26.3																		
Area-A	3/19/2021 16:35	ZN1577	M	C118512	7.15	150	88	18.4	69.8	67.0	43.3	<1.0	52.8	<1.0	<1.0	3.14	0.163	0.046	27.6			0.039	<0.010	0.079	0.079	<0.0030
Area-A	10/6/2021 16:10	AHR789	M	C176098	8.16	536	316	2.5	251	234	206	<1.0	252	<1.0	<1.0	15.7	0.155	0.170	84.5			<0.015	<0.010	0.16	0.16	<0.0030
CVC_BT	5/11/2021 12:10	ZU0200	M	C131591	12.3	5810	2510	19.3	2000	2140	1050	1020	<1.0	42.0	334	7.47	0.555	3.78	957			0.265	0.016	0.072	0.089	<0.0030
DC-discharge-R6-WP	4/4/2021 11:40	ZO6462	M	C121580	8.23	434	278	702	162	153	142	<1.0	174	<1.0	<1.0	6.15	0.144	0.066	72.0			0.267	<0.010	0.092	0.092	<0.0030
DC-discharge-R6-WP	4/8/2021 11:00	ZP1741	M	C122796	8.31	415	265	3990	217	139	145	<1.0	176	<1.0	<1.0	3.81	0.148	0.076	59.9			0.494	0.013	0.14	0.16	<0.0030
DC-discharge-R6-WP	5/19/2021 11:55	ZV3572	M	C134016	8.39	413	307	2500	289	149	146	2.1	173	2.5	<1.0	5.62	0.136	0.063	59.0			0.368	<0.010	0.074	0.074	0.0032
DC-discharge-R6-WP	6/2/2021 12:35	ZX5269	M	C138096	8.38	588	340	1420	269	133	204	1.6	245	1.9	<1.0	16.8	0.203	0.270	105			0.203	0.018	0.17	0.19	0.0068
DC-discharge-R6-WP	7/20/2021 15:10	ACH818	M	C152456	8.11	409	196	245	197	167	164	<1.0	200	<1.0	<1.0	4.1	0.093	0.062	64			0.070	<0.010	0.24	0.24	<0.0030
Earthfill_Dam_DS_OUT	11/17/2021 11:30	AKY311	M	C189131	8.02	400	244	1.0	179	195	149	<1.0	182	<1.0	<1.0	2.85	0.152	0.024	63.5			<0.015	<0.010	0.19	0.19	0.0056
Earthfill_Dam_DS_OUT	11/25/2021	FJ2101334-003	M	FJ2101334	8.22	467	258	<1.0	232	242	185	<1.0	226	<1.0	<1.0	3.01	0.184	<0.050	71.1			<0.0050	<0.0010	0.169	0.169	0.0041
Earthfill_Dam_DS_OUT	12/2/2021 13:00	FJ2101375-003	M	FJ2101375	8.28		256	<1.0	211	208	183	<1.0	223	<1.0	<1.0	2.60	0.172	<0.050	66.4			<0.0050	<0.0010	0.141	0.141	0.0048
Earthfill_Dam_DS_OUT	12/7/2021 11:15	FJ2101420-002	M	FJ2101420	8.11	443	260	<1.0	221	211	172	<1.0	210	<1.0	<1.0	2.34	0.153	<0.050	61.8			<0.0050	<0.0010	0.128		0.0047
Earthfill_Dam_DS_OUT	12/15/2021 11:45	FJ2101472-003	M	FJ2101472	8.26	435	266	<1.0	214	220	177	<1.0	216	<1.0	<1.0	2.37	0.153	<0.050	61.9			<0.0050	<0.0010	0.119	0.119	0.0042
Earthfill_Dam_DS_OUT	12/23/2021 12:45	FJ2101512-002	M	FJ2101512	8.07	457	285	<1.0	165	169	175	<1.0	213	<1.0	<1.0	2.51	0.162	<0.050	61.9			<0.0050	<0.0010	0.113	0.113	0.0038
Earthfill_Dam_DS_OUT	12/30/2021 12:15	FJ2200029-003	M	FJ2200029	8.04	361	222	<1.0	146	132		<1.0				1.77	0.107	<0.050	45.7			<0.0050	<0.0010	0.107		0.0033
Earthfill_Dam_E_BT	10/13/2021 13:00	AIE379	M	C178189	7.73	300	176	<1.0	141	153	130	<1.0	159	<1.0	<1.0	0.84	0.063	0.014	33.5			0.018	<0.010	<0.010	<0.010	<0.0030
Earthfill_Dam_E_BT	10/23/2021 11:30	AIZ374	M	C181550	7.81	428	248	3.0	194	197	149	<1.0	182	<1.0	<1.0	3.32	0.186	0.035	77.1			<0.015	<0.010	0.47	0.47	0.0054
Earthfill_Dam_E_BT	11/2/2021 15:20	AJU792	M	C184881	8.20	486	268	<1.0	217	208	174	<1.0	213	<1.0	<1.0	5.14	0.113	0.051	81.2			<0.015	<0.010	0.27	0.27	0.0062
Earthfill_Dam_E_BT	11/6/2021 11:40	AKD994	M	C186250	8.08	410	236	<1.0	185	178	152	<1.0	185	<1.0	<1.0	3.06	0.127	0.029	58.0			<0.015	<0.010	0.13	0.13	0.0067
Earthfill_Dam_E_BT	11/7/2021 11:25	AKE004	M	C186252	8.02	402	256	<1.0	193	177	152	<1.0	186	<1.0	<1.0	2.38	0.124	0.026	57.2			<0.015	<0.010	0.23	0.23	0.0062
Earthfill_Dam_E_BT	11/10/2021 17:00	AKN278	M	C187468	8.05	430	252	1.0	198	189	160	<1.0	195	<1.0	<1.0	3.28	0.164	0.037	65.4			<0.015	<0.010	0.19	0.19	0.0067
Earthfill_Dam_E_Sump	7/4/2021 16:05	ABD995	M	C147267	8.02	277	104	7.7	140	139	121	<1.0	148	<1.0	<1.0	1.09	0.090	0.015	30.8			<0.015	<0.010	0.075	0.075	0.0036
Earthfill_Dam_E_Sump	7/8/2021 14:40	ABM762	M	C148925	8.23	367	172	4.5	168	166	156	<1.0	190	<1.0	<1.0	2.45	0.106	0.033	50.9			0.048	<0.010	0.074	0.074	<0.0030
Earthfill_Dam_E_Sump	7/11/2021 14:30	ABP674	M	C149459	8.05	376	196	5.5	168	169	136	<1.0	166	<1.0	<1.0	2.7	0.088	0.044	50			0.016	<0.010	0.083	0.083	<0.0030
Earthfill_Dam_E_Sump	7/16/2021 12:00	ABZ189	M	C151029	7.96	285	284	<1.0	144	141	128	<1.0	156	<1.0	<1.0	1.2	0.082	0.023	29			<0.015	<0.010	0.093	0.093	0.0038
Earthfill_Dam_E_Sump	9/23/2021 17:30	AGT568	M	C171954	8.15	335	168	7.8	155	158	127	<1.0	155	<1.0	<1.0	1.97	0.102	0.017	41.4			0.017	<0.010	0.033	0.033	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Earthfill_Dam_E_Sump	9/24/2021 13:15	AGV855	M	C172263	8.22	313	190	1.2	160	159	127	<1.0	155	<1.0	<1.0	1.75	0.510	0.016	43.9			<0.015	<0.0050	0.047	0.047	<0.0030
Earthfill_Dam_E_Sump	9/25/2021 16:10	AGX499	M	C172580	7.70	318	204	3.3	166	162	156	<1.0	191	<1.0	<1.0	2.16	0.095	0.016	37.2			<0.015	<0.010	0.030	0.030	<0.0030
Earthfill_Dam_E_Sump	9/26/2021 16:10	AGX368	M	C172552	7.99	321	176	9.1	161	165	167	<1.0	204	<1.0	<1.0	2.12	0.089	0.017	38.5			<0.015	<0.010	0.075	0.075	0.0031
Earthfill_Dam_E_Sump	9/27/2021 12:00	AGZ870	M	C172958	7.92	315	196	6.9	159	166	126	<1.0	154	<1.0	<1.0	1.83	0.086	0.015	39.0			<0.015	<0.010	0.020	0.020	<0.0030
Earthfill_Dam_E_Sump	9/28/2021 13:20	AHC018	M	C173431	7.93	318	172	1.71	167	170	126	<1.0	153	<1.0	<1.0	2.16	0.086	0.016	39.0			<0.015	<0.010	0.020	0.020	<0.0030
EarthfillDam-W-Sump	5/11/2021 14:50	ZU0127	M	C131574	8.04	297	164	26.1	143	141	124	<1.0	152	<1.0	<1.0	2.04	0.085	0.012	34.4			0.040	<0.010	0.057	0.057	0.0037
EarthfillDam-W-Sump	5/12/2021 13:50	ZU2106	M	C131920	8.01	250	144	2.3	128	130	108	<1.0	132	<1.0	<1.0	1.82	0.076	<0.010	22.5			0.030	<0.010	0.055	0.055	0.0043
EarthfillDam-W-Sump	5/13/2021 13:50	ZU4966	M	C132331	7.98	237	112	2.3	119	119	102	<1.0	125	<1.0	<1.0	0.70	0.067	<0.010	20.6			0.021	<0.010	0.068	0.068	<0.0030
EarthfillDam-W-Sump	6/24/2021 11:55	AAQ175	M	C144970	8.28	702	408	10.2	232	190	219	<1.0	267	<1.0	<1.0	11.8	0.185	0.159	129			0.058	<0.010	0.027	0.027	0.0035
EarthfillDam-W-Sump	6/30/2021 13:15	AAZ007	M	C146528	8.14	451	292	2.9	176	165	174	<1.0	212	<1.0	<1.0	7.27	0.137	0.096	68.2			0.058	0.019	0.10	0.12	<0.0030
EarthfillDam-W-Sump	7/1/2021 13:05	ABB249	M	C146903	8.26	413	296	2.4	167	157	181	<1.0	220	<1.0	<1.0	6.47	0.124	0.092	57.3			0.045	0.022	0.12	0.14	<0.0030
EarthfillDam-W-Sump	7/2/2021 11:40	ABB259	M	C146905	8.12	378	272	6.3	161	157	181	<1.0	221	<1.0	<1.0	5.28	0.102	0.077	47.4			0.027	0.016	0.14	0.15	0.0032
EarthfillDam-W-Sump	7/3/2021 13:10	ABE025	M	C147272	8.11	384	264	3.3	154	158	189	<1.0	230	<1.0	<1.0	5.10	0.106	0.082	50.2			0.023	0.011	0.12	0.13	0.0034
EarthfillDam-W-Sump	7/4/2021 10:40	ABD990	M	C147267	8.07	359	176	3.8	153	153	181	<1.0	221	<1.0	<1.0	4.16	0.096	0.064	42.9			0.031	0.010	0.13	0.14	0.0037
EarthfillDam-W-Sump	7/5/2021 11:00	ABG201	M	C147674	8.07	341	184	1.9	153	150	177	<1.0	216	<1.0	<1.0	4.31	0.093	0.056	39.3			0.038	<0.010	0.12	0.12	<0.0030
EarthfillDam-W-Sump	7/6/2021 13:30	ABJ180	M	C148228	8.08	329	188	1.3	140	139	187	<1.0	228	<1.0	<1.0	2.92	0.101	0.049	35.7			0.023	<0.010	0.12	0.12	<0.0030
EarthfillDam-W-Sump	7/7/2021 13:30	ABK530	M	C148516	7.92	349	336	4.7	142	146	136	<1.0	167	<1.0	<1.0	3.12	0.082	0.033	34.6			<0.015	<0.010	0.13	0.13	<0.0030
EarthfillDam-W-Sump	7/8/2021 18:00	ABM759	M	C148925	7.78	363	160	3.5	149	147	142	<1.0	173	<1.0	<1.0	4.11	0.098	0.062	41.1			0.048	<0.010	0.12	0.12	<0.0030
EarthfillDam-W-Sump	7/9/2021 11:30	ABM746	M	C148923	8.11	360	156	5.7	142	147	174	<1.0	212	<1.0	<1.0	3.81	0.113	0.053	39.9			0.030	<0.010	0.11	0.11	<0.0030
EarthfillDam-W-Sump	7/10/2021 15:40	ABP526	M	C149429	8.09	361	156	7.7	146	148	141	<1.0	172	<1.0	<1.0	4.28	0.078	0.065	40.8			0.021	<0.010	0.12	0.12	0.0045
EarthfillDam-W-Sump	7/11/2021 14:00	ABP671	M	C149459	7.78	296	160	1.4	138	143	121	<1.0	148	<1.0	<1.0	1.53	0.065	<0.010	28.9			<0.015	<0.010	0.10	0.10	0.0035
EarthfillDam-W-Sump	7/12/2021 6:00	ABP852	M	C149486	8.17	331	152	13.9	149	146	144	<1.0	176	<1.0	<1.0	3.24	0.079	0.030	36.2			<0.015	<0.010	0.10	0.10	0.0032
EarthfillDam-W-Sump	7/13/2021 16:50	ABU090	M	C150243	8.17	365	192	<1.0	155	162	185	<1.0	226	<1.0	<1.0	3.0	0.103	0.043	42			0.018	<0.010	0.093	0.093	<0.0030
EarthfillDam-W-Sump	7/14/2021 11:50	ABX611	M	C150851	7.90	284	160	<1.0	132	140	138	<1.0	168	<1.0	<1.0	0.81	0.069	0.016	23			0.027	<0.010	0.10	0.10	0.0031
EarthfillDam-W-Sump	7/15/2021 13:20	ABY386	M	C150960	7.99	359	240	8.8	149	154	139	<1.0	170	<1.0	<1.0	2.7	0.098	0.043	46			0.080	<0.010	0.089	0.089	<0.0030
EarthfillDam-W-Sump	7/16/2021 11:30	ABZ185	M	C151029	7.95	347	204	5.5	144	146	137	<1.0	167	<1.0	<1.0	2.6	0.104	0.046	40			0.019	<0.010	0.11	0.11	0.0035
EarthfillDam-W-Sump	7/16/2021 11:40	ABZ190	D	C151029	7.87	369	228	4.1	145	150	141	<1.0	172	<1.0	<1.0	3.1	0.119	0.039	44			0.015	<0.010	0.10	0.10	<0.0030
EarthfillDam-W-Sump	7/17/2021 13:15	ACC202	M	C151533	8.00	283	108	<1.0	144	129	134	<1.0	164	<1.0	<1.0	0.74	0.069	<0.010	21			0.026	<0.010	0.14	0.14	0.0051
EarthfillDam-W-Sump	7/18/2021 15:20	ACC414	M	C151549	7.96	283	144	<1.0	140	145	140	<1.0	171	<1.0	<1.0	0.73	0.072	<0.010	21			0.021	<0.010	0.16	0.16	0.0032
EarthfillDam-W-Sump	7/19/2021 16:20	ACF035	M	C151946	7.85	277	136	3.7	131	131	132	<1.0	161	<1.0	<1.0	0.79	0.057	<0.010	22			0.025	<0.010	0.12	0.12	0.0036
EarthfillDam-W-Sump	7/20/2021 11:40	ACH812	M	C152456	7.96	278	120	<1.0	139	132	133	<1.0	162	<1.0	<1.0	0.75	0.066	<0.010	21			0.030	<0.010	0.11	0.11	0.0078
EarthfillDam-W-Sump	7/27/2021 16:30	ACT042	M	C154246	8.00	294	136	<1.0	136	133	146	<1.0	178	<1.0	<1.0	1.74	0.071	0.015	24.7			0.017	<0.010	0.12	0.12	0.0036
EarthfillDam-W-Sump	7/30/2021 12:30	ACY655	M	C155288	8.05	297	172	1.6	142	146	120	<1.0	147	<1.0	<1.0	1.1	0.077	0.014	23			0.287	<0.010	0.12	0.12	0.0037
EarthfillDam-W-Sump	8/1/2021 15:30	ADC693	M	C155924	7.34	299	124	<1.0	142	149	129	<1.0	158	<1.0	<1.0	1.81	0.068	0.014	26.6			0.072	<0.010	0.13	0.13	0.0035
EarthfillDam-W-Sump	8/5/2021 16:20	ADK137	M	C157133	7.68	272	140	<1.0	147	137	136	<1.0	166	<1.0	<1.0	1.76	0.076	<0.010	22.7			0.101	<0.010	0.13	0.13	<0.0030
EarthfillDam-W-Sump	8/6/2021 11:15	ADK124	M	C157131	7.62	276	148	1.5	147	135	128	<1.0	156	<1.0	<1.0	1.93	0.067	<0.010	23.0			0.020	<0.010	0.12	0.12	0.0031
EarthfillDam-W-Sump	8/7/2021 15:45	ADM459	M	C157545	7.24	278	148	1.1	153	131	127	<1.0	154	<1.0	<1.0	1.35	0.067	<0.010	22.6			0.024	<0.010	0.12	0.12	0.0037
EarthfillDam-W-Sump	8/8/2021 15:45	ADN229	M	C157651	7.61	280	132	2.2	144	140	124	<1.0	151	<1.0	<1.0	1.56	0.064	0.010	25.5			<0.015	<0.010	0.12	0.12	0.0037
EarthfillDam-W-Sump	8/9/2021 10:55	ADM369	M	C157523	7.52	279	136	<1.0	145	135	125	<1.0	152	<1.0	<1.0	1.88	0.064	0.012	24.6			<0.015	<0.010	0.13	0.13	0.0034
EarthfillDam-W-Sump	8/10/2021 15:00	ADP901	M	C158211	7.99	329	272	<1.0	156	155	193	<1.0	235	<1.0	<1.0	2.19	0.136	0.025	29.9			0.031	<0.010	0.055	0.055	0.0032
EarthfillDam-W-Sump	8/11/2021 15:30	ADR990	M	C158615	7.31	325	164	<1.0	160	156	149	<1.0	182	<1.0	<1.0	2.80	0.077	0.024	30.5			0.045	<0.010	0.038	0.038	0.0031
EarthfillDam-W-Sump	8/12/2021 16:30	ADU540	M	C159104	8.29	2360	1670	2.6	381	47.8	197	1.4	236	1.7	<1.0	61.4	0.393	0.909	967			0.169	0.029	3.4	3.4	<0.0030
EarthfillDam-W-Sump	8/13/2021 11:20	ADU547	M	C159105	7.90	328	196	<1.0	170	156	194	<1.0	237	<1.0	<1.0	2.75	0.073	0.023	30.5			0.048	<0.010	0.040	0.040	<0.0030
EarthfillDam-W-Sump	8/14/2021 17:30	ADW202	M	C159435	7.77	333	196	<1.0	169	166	148	<1.0	181	<1.0	<1.0	2.45	0.076	0.022	31.1			0.025	<0.010	0.037	0.037	<0.0030
EarthfillDam-W-Sump	8/15/2021 16:00	ADW429	M	C159489	7.30	332	192	1.3	172	165	143	<1.0	175	<1.0	<1.0	3.05	0.079	0.026	31.8			<0.015	<0.010	0.042	0.042	0.0035
EarthfillDam-W-Sump	8/16/2021 16:30	ADY264	M	C159861	7.40	338	208	1.5	179	172	148	<1.0	180	<1.0	<1.0	3.20	0.079	0.029	32.0			0.039	<0.010	0.033	0.033	0.0032
EarthfillDam-W-Sump	8/17/2021 15:30	AED547	M	C160795	7.43	343	176	<1.0	176	173	147	<1.0	179	<1.0	<1.0	3.49	0.078	0.029	34.1			<0.015	<0.010	0.020	0.020	<0.0030
EarthfillDam-W-Sump	8/18/2021 16:30	AED518	M	C160793	7.56	347	124	1.7	177	172	145	<1.0	177	<1.0	<1.0	3.28	0.073	0.031	33.7			0.063	<0.010	0.023	0.023	<0.0030
EarthfillDam-W-Sump	8/19/2021 18:00	AEF599	M	C161077	7.92	354	188	<1.0	166	174	146	<1.0	178	<1.0	<1.0	3.01	0.074	0.032	33.9			<0.015	<0.010	0.019	0.019	<0.0030
EarthfillDam-W-Sump	8/20/2021 11:50	AEF524	M	C161059	7.48	352	196	<1.0	184	177	146	<1.0	179	<1.0	<1.0	3.30	0.072	0.032	35.0			0.036	<0.010	0.013	0.013	<0.0030
EarthfillDam-W-Sump	8/21/2021 17:20	AEI350	M	C161420	7.83	358	244	<1.0	172	182	150	<1.0	183	<1.0	<1.0	3.20	0.073	0.032	35.7			<0.015	<0.010	0.014	0.014	<0.0030
EarthfillDam-W-Sump	8/22/2021 16:30	AEI412	M	C161433	7.99	363	124	<1.0	174	177	126	<1.0	153	<1.0	<1.0	3.34	0.072	0.034	36.3			0.030	<0.010	0.011	0.011	<0.0030
EarthfillDam-W-Sump	8/23/2021 14:00	AEL592	M	C161925	7.44	360	224	<1.0	182	165	152	<1.0	186	<1.0	<1.0	3.35	0.076	0.036	37.7			0.018	<0.010	0.012	0.012	<0.0030
EarthfillDam-W-Sump	8/24/2021 14:30	AEN131	M	C162291	7.41	304	148	<1.0	156	157	132	<1.0	161	<1.0	<1.0	1.56	0.062	0.023	27.7			<0.015	<0.010	0.092	0.092	<0.0030
EarthfillDam-W-Sump	8/25/2021 12:00	AEP242	M	C162703	7.65	382	224	<1.0	178	178	156	<1.0	191	<1.0	<1.0	2.53	0.070	0.027	39.0			0.065	<0.010	0.11	0.11	<0.0030
EarthfillDam-W-Sump	8/26/2021 14:35	AER557	M	C163145	7.61	309	164	<1.0	156	148	139	<1.0	169	<1.0	<1.0	1.81	0.065	0.027	28.2			0.028	<0.010	0.088	0.088	<0.0030
EarthfillDam-W-Sump	8/27/2021 11:15	AER548	M	C163144	7.62	314	185	<1.0	163	145	136	<1.0	166	<1.0	<1.0	1.70	0.062	0.028	28.2			<0.015	<0.010	0.018	0.018	0.0041
EarthfillDam-W-Sump	8/28/2021 14:20	AEV128	M	C163811	7.21	316	140	<1.0	153	147	131	<1.0	160	<1.0	<1.0	3.52	0.056	0.036	29.4			<0.015	<0.010	0.11	0.11	0.0032
EarthfillDam-W-Sump	8/29/2021 14:20	AEV012	M	C163786	7.19	322	172	<1.0	155	153	140	<1.0	171	<1.0	<1.0	3.49	0.066	0.039	30.7			0.029	<0.010	0.12	0.12	0.0034
EarthfillDam-W-Sump	8/30/2021 13:45	AEX833	M	C164176	7.28	318	276	<1.0	153	152	140	<1.0	171	<1.0	<1.0	3.52	0.065	0.040	31.4			0.033	<0.010	0.12	0.12	<0.0030
EarthfillDam-W-Sump	8/31/2021 13:35	AFA833	M	C164798	8.12	333	140	<1.0	155	152	135	<1.0	165	<1.0	<1.0	3.54	0.063	0.045	32.6			0.038	<0.010	0.13	0.13	0.0036
EarthfillDam-W-Sump	9/1/2021 12:20	AFC992	M	C165103	8.15	395	220	<1.0	185	177	156	<1.0	191	<1.0	<1.0	3.43	0.076	0.047	47.5			<0.015	<0.010	<0.010	<0.010	<0.0030
EarthfillDam-W-Sump	9/2/2021 15:30	AFF608	M	C165563	7.71	400	264	<0.99	184	180	160	<1.0	196	<1.0	<1.0	4.16	0.151	0.042	48.0			<0.015	<0.010	0.037	0.037	<0.0030
EarthfillDam-W-Sump	9/3/2021 11:40	AFF866	M	C165588	7.79	400	376	<1.0	186	185	165	<1.0	201	<1.0	<1.0	3.29	0.076	0.043	47.6			0.027	<0.010	0.011	0.011	<0.0030
EarthfillDam-W-Sump	9/4/2021 12:50	AFH290	M	C165785	7.69	392	232	<1.0	189	178	159	<1.0	194	<1.0	<1.0	3.60	0.076	0.046	48.8			<0.015	<0.0050	<0.020	<0.020	<0.0030
EarthfillDam-W-Sump	9/5/2021 16:10	AFI821	M	C166081	7.64	401	248	<1.0	184	178	162	<1.0	198	<1.0	<1.0	4.18	0.073	0.049	46.4			<0.015	<0.010	0.018	0.018	<0.0030
EarthfillDam-W-Sump	9/6/2021 10:40	AFI720	M	C166063	7.56	406	196	<1.0	192	187	164	<1.0	200	<1.0	<1.0	3.17	0.072	0.044	48.2			<0.015	<0.010	0.013	0.013	<0.0030
EarthfillDam-W-Sump	9/7/2021 14:40	AFL346	M	C166557	8.21	414	276	<1.0	188	188	162	<1.0	198	<1.0	<1.0	4.60	0.080	0.047	50.0			0.040	<0.010	<0.010	<0.010	0.0049
EarthfillDam-W-Sump	9/8/2021 14:30	AFO058	M	C167059	7.48	425	252	<1.0	205	184	165	<1.0	201	<1.0	<1.0	4.66	0.073	0.054	51.9			0.015	<0.010	0.025	0.025	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EarthfillDam-W-Sump	9/9/2021 16:40	AFQ846	M	C167445	8.23	429	228	<1.0	207	183	167	<1.0	204	<1.0	<1.0	4.63	0.060	0.053	50.7			0.099	<0.010	<0.010	<0.010	<0.0030
EarthfillDam-W-Sump	9/10/2021 11:10	AFQ882	M	C167449	8.24	424	108	<1.0	204	194	167	<1.0	204	<1.0	<1.0	4.81	0.060	0.054	51.4			0.071	<0.010	0.072	0.072	<0.0030
EarthfillDam-W-Sump	9/11/2021 4:30	AFV354	M	C168029	8.11	427	220	<1.0	205	182	166	<1.0	202	<1.0	<1.0	3.90	0.074	0.059	49.1			<0.015	<0.010	0.016	0.016	<0.0030
EarthfillDam-W-Sump	9/12/2021 12:10	AFV418	M	C168037	8.08	428	232	<1.0	212	179	167	<1.0	204	<1.0	<1.0	4.75	0.074	0.056	56.0			0.016	<0.010	<0.010	<0.010	<0.0030
EarthfillDam-W-Sump	9/13/2021 6:00	AFV245	M	C168020	7.84	431	224	<1.0	211	182	170	<1.0	207	<1.0	<1.0	5.49	0.058	0.056	56.4			<0.015	<0.010	<0.010	<0.010	<0.0030
EarthfillDam-W-Sump	9/16/2021 14:55	AGG331	M	C169805	8.25	360	204	<1.0	179	161	168	<1.0	205	<1.0	<1.0	3.94	<0.050	0.049	40.7			<0.015	<0.010	0.13	0.13	<0.0030
EarthfillDam-W-Sump	9/17/2021 11:45	AGG309	M	C169799	8.09	363	224	<1.0	183	183	145	<1.0	177	<1.0	<1.0	3.91	0.053	0.043	40.5			0.057	<0.010	0.12	0.12	0.0035
EarthfillDam-W-Sump	9/18/2021 15:45	AGJ636	M	C170329	7.86	364	208	<1.0	188	182	141	<1.0	172	<1.0	<1.0	3.55	0.067	0.041	38.5			<0.015	<0.010	0.12	0.12	0.0032
EarthfillDam-W-Sump	9/19/2021 13:15	AGJ666	M	C170331	8.07	411	252	<1.0	204	196	206	<1.0	251	<1.0	<1.0	4.35	0.082	0.058	48.6			0.036	<0.010	0.097	0.097	0.0033
EarthfillDam-W-Sump	9/20/2021 13:15	AGM225	M	C170680	8.01	253	108	<1.0	133	129	115	<1.0	140	<1.0	<1.0	0.76	0.084	<0.010	21.3			<0.015	<0.010	0.12	0.12	0.0040
EarthfillDam-W-Sump	9/21/2021 14:10	AGO665	M	C171134	8.20	416	216	4.8	204	203	159	<1.0	194	<1.0	<1.0	5.08	0.051	0.063	52.7			<0.015	<0.010	0.095	0.095	0.0031
EarthfillDam-W-Sump	9/22/2021 14:20	AGR068	M	C171568	8.09	434	256	1.0	206	202	205	<1.0	250	<1.0	<1.0	5.14	<0.050	0.064	52.2			0.020	<0.010	0.089	0.089	0.0036
EarthfillDam-W-Sump	9/23/2021 14:10	AGT566	M	C171954	8.25	433	244	<1.0	196	198	198	<1.0	241	<1.0	<1.0	5.40	<0.050	0.063	54.7			<0.015	<0.010	0.098	0.098	0.0030
EarthfillDam-W-Sump	9/24/2021 12:15	AGV851	M	C172263	8.28	423	262	<1.0	204	210	164	<1.0	200	<1.0	<1.0	5.64	0.400	0.063	66.8			<0.015	<0.0050	0.107	0.107	<0.0030
EarthfillDam-W-Sump	9/25/2021 12:15	AGX497	M	C172580	8.03	430	268	2.5	214	209	204	<1.0	249	<1.0	<1.0	5.04	<0.050	0.059	53.9			<0.015	<0.010	0.096	0.096	0.0032
EarthfillDam-W-Sump	9/26/2021 10:45	AGX365	M	C172552	7.87	429	264	<1.0	203	214	213	<1.0	260	<1.0	<1.0	5.40	<0.050	0.060	51.7			<0.015	<0.010	0.14	0.14	0.0031
EarthfillDam-W-Sump	9/27/2021 10:20	AGZ869	M	C172958	8.07	429	260	<0.99	219	215	163	<1.0	199	<1.0	<1.0	5.20	0.051	0.065	52.5			<0.015	<0.010	0.11	0.11	0.0033
EarthfillDam-W-Sump	9/28/2021 16:00	AHC017	M	C173431	8.06	428	256	2.37	218	244	160	<1.0	195	<1.0	<1.0	5.64	0.054	0.070	58.0			<0.015	<0.010	0.12	0.12	0.0031
EarthfillDam-W-Sump	9/29/2021 16:30	AHF734	M	C174181	8.11	449	232	<1.0	210	232	168	<1.0	205	<1.0	<1.0	6.05	0.054	0.072	57.4			<0.015	<0.010	0.14	0.14	0.0033
EarthfillDam-W-Sump	9/30/2021 16:20	AHF784	M	C174188	8.07	454	264	2.8	232	225	190	<1.0	231	<1.0	<1.0	6.47	0.058	0.077	61.0			0.016	<0.010	0.19	0.19	<0.0030
EarthfillDam-W-Sump	10/1/2021 13:00	AHF787	M	C174189	8.06	454	268	2.1	201	234	181	<1.0	220	<1.0	<1.0	6.59	0.054	0.082	60.5			<0.015	<0.010	0.19	0.19	<0.0030
EarthfillDam-W-Sump	10/2/2021 14:30	AHI564	M	C174687	8.09	465	280	<1.0	209	240	177	<1.0	216	<1.0	<1.0	6.70	0.059	0.085	62.7			0.027	<0.010	0.22	0.22	0.0033
EarthfillDam-W-Sump	10/3/2021 15:00	AHI568	M	C174689	7.98	462	264	<1.0	205	247	182	<1.0	222	<1.0	<1.0	6.77	0.110	0.088	62.4			<0.015	<0.010	0.22	0.22	0.0031
EarthfillDam-W-Sump	10/4/2021 10:00	AHI555	M	C174685	7.97	464	268	<1.0	205	238	179	<1.0	219	<1.0	<1.0	7.02	0.057	0.086	62.8			<0.015	<0.010	0.20	0.20	0.0035
EarthfillDam-W-Sump	10/5/2021 11:40	AHO718	M	C175650	7.95	467	248	<0.99	217	214	169	<1.0	206	<1.0	<1.0	7.27	0.063	0.091	62.9			<0.015	<0.010	0.23	0.23	<0.0030
EarthfillDam-W-Sump	10/6/2021 14:45	AHR786	M	C176098	8.19	472	256	<1.0	215	205	172	<1.0	210	<1.0	<1.0	7.56	0.051	0.087	66.2			<0.015	<0.010	0.24	0.24	<0.0030
EarthfillDam-W-Sump	10/7/2021 12:10	AHU811	M	C176559	8.15	473	272	<1.0	206	201	172	<1.0	209	<1.0	<1.0	6.99	0.052	0.133	59.4			<0.015	<0.010	0.21	0.21	0.0039
EarthfillDam-W-Sump	10/8/2021 11:30	AHU799	M	C176557	8.19	470	288	<1.0	222	202	172	<1.0	210	<1.0	<1.0	7.24	<0.050	0.108	58.5			<0.015	<0.010	0.28	0.28	0.0038
EarthfillDam-W-Sump	10/9/2021 16:40	AHX006	M	C176838	8.08	473	320	1.6	217	211	183	<1.0	223	<1.0	<1.0	7.33	0.085	0.081	68.4			<0.015	<0.0050	0.221	0.221	<0.0030
EarthfillDam-W-Sump	10/10/2021 15:00	AHX002	M	C176837	8.04	465	280	2.0	202	207	179	<1.0	218	<1.0	<1.0	7.28	0.080	0.085	63.5			<0.015	<0.0050	0.219	0.219	0.0051
EarthfillDam-W-Sump	10/11/2021 12:15	AHY661	M	C177084	7.78	466	260	<1.0	215	205	180	<1.0	220	<1.0	<1.0	6.86	0.053	0.105	60.2			<0.015	<0.010	0.27	0.27	0.0037
EarthfillDam-W-Sump	10/12/2021 11:25	AIB245	M	C177600	8.13	474	276	<0.97	214	202	178	<1.0	217	<1.0	<1.0	6.35	0.053	0.176	68.6			<0.015	<0.010	0.22	0.22	0.0032
EarthfillDam-W-Sump	10/13/2021 14:25	AIE375	M	C178189	7.92	477	288	<1.0	199	211	179	<1.0	218	<1.0	<1.0	6.62	0.057	0.083	69.3			<0.015	<0.010	0.25	0.25	0.0037
EarthfillDam-W-Sump	10/14/2021 13:50	AIG810	M	C178651	8.05	479	256	<1.0	201	197	179	<1.0	218	<1.0	<1.0	6.33	0.071	0.084	70.2			<0.015	<0.010	0.31	0.31	0.0035
EarthfillDam-W-Sump	10/15/2021 13:05	AII744	M	C178993	8.33	472	292	<1.0	204	208	170	1.8	204	2.1	<1.0	6.46	0.078	0.080	70.9			<0.015	<0.0050	0.201	0.201	<0.0030
EarthfillDam-W-Sump	10/16/2021 12:25	AIL332	M	C179338	8.13	468	300	<1.0	196	193	187	<1.0	228	<1.0	<1.0	7.38	0.054	0.086	67.4			<0.015	<0.010	0.24	0.24	0.0037
EarthfillDam-W-Sump	10/17/2021 23:35	AIL268	M	C179325	8.00	471	280	<1.0	194	189	185	<1.0	226	<1.0	<1.0	7.28	0.054	0.087	65.9			0.016	<0.010	0.24	0.24	0.0042
EarthfillDam-W-Sump	10/19/2021 16:10	AIR753	M	C180384	8.13	478	296	1.0	212	194	184	<1.0	224	<1.0	<1.0	7.66	0.064	0.094	68.7			<0.015	<0.010	0.32	0.32	0.0035
EarthfillDam-W-Sump	10/20/2021 17:00	AIT536	M	C180689	8.10	476	288	<0.99	204	200	187	<1.0	228	<1.0	<1.0	7.23	0.124	0.092	67.3			<0.015	<0.010	0.27	0.27	0.0034
EarthfillDam-W-Sump	10/21/2021 15:30	AIW014	M	C181069	8.05	464	288	1.7	199	194	174	<1.0	212	<1.0	<1.0	6.82	0.054	0.092	66.3			<0.015	<0.010	0.21	0.21	0.0030
EarthfillDam-W-Sump	10/22/2021 12:00	AIW019	M	C181072	8.04	448	276	1.5	194	191	166	<1.0	203	<1.0	<1.0	6.07	<0.050	0.082	64.2			<0.015	<0.010	0.20	0.20	0.0030
EarthfillDam-W-Sump	10/23/2021 14:30	AIZ373	M	C181550	7.87	448	252	<1.0	192	189	166	<1.0	203	<1.0	<1.0	5.61	0.051	0.080	67.6			<0.015	<0.010	0.19	0.19	0.0037
EarthfillDam-W-Sump	10/24/2021 14:30	AIZ353	M	C181544	7.93	454	264	<1.0	191	194	167	<1.0	203	<1.0	<1.0	5.98	0.055	0.083	70.1			<0.015	<0.010	0.20	0.20	0.0039
EarthfillDam-W-Sump	10/25/2021 7:00	AIZ360	M	C181547	7.96	457	276	<1.0	197	197	168	<1.0	205	<1.0	<1.0	5.66	0.057	0.112	66.4			<0.015	<0.010	0.20	0.20	0.0041
Farmers-Pond-EOP	5/18/2021 10:30	ZV2804	M	C133850			5.1																			
L3-DC-DS	3/19/2021 15:45	ZN1580	M	C118512				1130																		
L3-DC-DS	3/28/2021 16:10	ZN9525	M	C120093				20.3																		
L3-DC-DS	3/31/2021 18:20	ZO4120	M	C121130				423																		
L3-DC-DS	4/1/2021 10:40	ZO4128	M	C121132				124																		
L3-DC-DS	4/3/2021 10:20	ZO6456	M	C121575				18.9																		
L3-DC-DS	4/5/2021 10:40	ZO7525	M	C121801				15.5																		
L3-DC-DS	4/9/2021 15:55	ZP3596	M	C123204				11.3																		
L3-DC-DS	4/14/2021 17:30	ZP9476	M	C124397			288	15.1																		
L3-DC-DS	5/5/2021 17:30	ZT3128	M	C130491			524	2.8																		
L3-DC-DS	5/6/2021 14:30	ZT3108	M	C130484			604	9.7																		
L3-DC-DS	5/25/2021 16:10	ZW1246	M	C135423			760	7.5																		
L3-DC-DS	5/27/2021 18:00	ZW4838	M	C136103			860	<1.0																		
L3-DC-DS	6/17/2021 12:30	AAC471	M	C142866			920	1.0																		
L3-DC-DS	8/22/2021 17:40	AEI419	M	C161433			816	74.9																		
L3-DC-US	3/19/2021 15:40	ZN1579	M	C118512				1540																		
L3-DC-US	3/28/2021 16:00	ZN9524	M	C120093				22.9																		
L3-DC-US	3/31/2021 18:15	ZO4119	M	C121130				382																		
L3-DC-US	4/1/2021 10:30	ZO4127	M	C121132				124																		
L3-DC-US	4/3/2021 10:10	ZO6455	M	C121575				23.5																		
L3-DC-US	4/5/2021 10:30	ZO7524	M	C121801				14.2																		
L3-DC-US	4/9/2021 15:45	ZP3595	M	C123204				12.9																		
L3-DC-US	4/14/2021 17:45	ZP9475	M	C124397			277	16.7																		
L3-DC-US	5/5/2021 17:40	ZT3127	M	C130491			520	2.5																		
L3-DC-US	5/6/2021 14:20	ZT3107	M	C130484			564	3.5																		

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
L3-DC-US	5/25/2021 16:00	ZW1245	M	C135423			788	6.5																		
L3-DC-US	5/27/2021 17:50	ZW4839	M	C136103			950	<1.0																		
L3-DC-US	6/17/2021 13:00	AAC473	M	C142866			1280	7.9																		
L3-DC-US	8/22/2021 18:00	AEI420	M	C161433			848	51.2																		
L3-E-DC-Sump	4/5/2021 10:20	ZO7523	M	C121801				173																		
L3-W-DC-EOP	3/31/2021 17:30	ZO4118	M	C121130				1030																		
L3-W-DC-EOP	4/1/2021 10:20	ZO4126	M	C121132				97.6																		
L3-W-DC-EOP	4/5/2021 10:10	ZO7522	M	C121801				28.3																		
L3-W-DC-EOP	5/2/2021 16:55	ZS6052	M	C129102				173																		
L3-W-DC-EOP	5/4/2021 15:30	ZS9947	M	C129944			768	60.2																		
L3-W-DC-EOP	5/5/2021 17:20	ZT3126	M	C130491			588	47.0																		
L3-W-DC-EOP	5/6/2021 14:10	ZT3106	M	C130484			756	12.5																		
L3-W-DC-EOP	5/18/2021 10:05	ZV2803	M	C133850				87.1																		
L3-W-DC-EOP	5/21/2021 9:20	ZV5658	M	C134400				6.6																		
L3-W-DC-EOP	5/25/2021 15:50	ZW1244	M	C135423			736	22.5																		
L3-W-DC-EOP	5/27/2021 17:40	ZW4840	M	C136103			744	3.6																		
L3-W-DC-EOP	6/7/2021 16:20	ZY3091	M	C139476				8.8																		
L3-W-DC-EOP	6/17/2021 12:50	AAC472	M	C142866			856	8.9																		
L3-W-DC-EOP	7/21/2021 18:40	ACH935	M	C152481				236																		
L3-W-DC-EOP	7/22/2021 11:50	ACL557	M	C152988				24.9																		
L3-W-DC-EOP	8/6/2021 10:00	ADK127	M	C157131				18.5																		
L3-W-DC-EOP	8/7/2021 9:40	ADM464	M	C157545				10.3																		
L3-W-DC-EOP	11/6/2021 9:55	AKD996	M	C186250				5.0																		
L3-W-DC-Sump	3/19/2021 15:30	ZN1578	M	C118512				207																		
L3-W-DC-Sump	5/15/2021 10:45	ZU7898	M	C132915				5.3																		
L3-W-DC-Sump	7/20/2021 16:25	ACH820	M	C152456				14.0																		
L3-W-DC-Sump	8/22/2021 17:30	AEI421	M	C161433			816	40.5																		
LBCD-Sump-BT	3/30/2021 11:30	ZO2680	M	C120790	8.57	6960	4890	164	465	423	334	14.5	372	17.5	<1.0	490	1.43	7.88	2620			3.27	0.24	0.65	0.89	0.0034
LBCD-Sump-BT	6/9/2021 11:10	ZY6851	M	C140198	8.11	1540	1020	6.7	431	426	264	<1.0	322	<1.0	<1.0	44.3	0.196	0.546	491			0.176	0.016	0.22	0.23	<0.0030
LBCD-Sump-BT	9/18/2021 16:00	AGJ638	M	C170329	7.92	338	200	39.7	207	166	126	<1.0	154	<1.0	<1.0	1.97	0.073	0.020	42.9			0.045	<0.010	0.13	0.13	<0.0030
LBCD-Sump-BT	10/12/2021 11:00	AIB246	M	C177600	7.56	348	208	<1.0	170	164	137	<1.0	167	<1.0	<1.0	1.61	<0.050	0.085	46.0			<0.015	<0.010	0.095	0.095	<0.0030
LBEX_B1	3/19/2021 11:00	ZM8863	M	C118061	7.77	651	401	157	303	283	155	<1.0	189	<1.0	<1.0	12.8	0.233	0.064	169			0.100	0.037	1.2	1.3	0.0048
LBEX_B1	4/6/2021 12:30	ZO9478	M	C122250	8.28	840	558	24.9	379	379	228	<1.0	279	<1.0	<1.0	19.0	0.259	0.107	183			0.294	0.031	1.2	1.2	0.0040
LBEX_B1	5/2/2021 11:05	ZS6045	M	C129102	8.03	1130	688	16.9	528	504	281	<1.0	342	<1.0	<1.0	23.9	0.464	0.136	318			0.110	<0.010	0.72	0.72	<0.0030
LBEX_B1	5/13/2021 16:45	ZU4940	M	C132324	8.11	1340	992	6.1	559	579	348	<1.0	425	<1.0	<1.0	21.9	0.338	0.168	392			0.102	<0.010	0.65	0.65	<0.0030
LBEX_B1	6/13/2021 9:50	ZZ1992	M	C141057	8.17	1630	1160	3.3	618	597	510	<1.0	623	<1.0	<1.0	10.0	0.343	0.132	400			0.045	<0.010	<0.050	<0.050	0.0034
LBEX_B1	7/19/2021 10:35	ACF038	M	C151946	8.23	1580	1020	6.4	532	515	508	<1.0	619	<1.0	<1.0	6.0	0.358	0.163	390			0.019	<0.010	<0.050	<0.050	<0.0030
LBEX_B1	8/28/2021 15:35	AEV127	M	C163811	7.91	1280	756	252	542	493	359	<1.0	438	<1.0	<1.0	13.6	0.335	0.152	354			0.028	0.029	2.9	3.0	0.0044
LBEX_B1	9/20/2021 15:10	AGM226	M	C170680	8.12	1700	1070	37.6	744	676	550	<1.0	671	<1.0	<1.0	5.80	0.343	0.153	384			<0.015	<0.010	<0.010	<0.010	<0.0030
LBEX_B1	10/10/2021 15:55	AHX003	M	C176837	8.20	1640	1080	4.8	628	577	589	<1.0	719	<1.0	<1.0	5.35	0.320	0.151	396			0.059	<0.0050	<0.020	<0.020	<0.0030
LBEX_B1	11/7/2021 16:10	AKE005	M	C186252	8.05	1120	764	12.5	464	449	221	<1.0	269	<1.0	<1.0	26.2	0.233	0.316	356			0.072	0.040	2.6	2.6	0.0030
LBEX_PAG_SUMP	8/7/2021 17:30	ADM463	M	C157545	4.18	2160	2000	191	1180	1080	<1.0	<1.0	<1.0	<1.0	<1.0	25.2	0.278	0.447	1270			0.528	0.032	0.23	0.26	0.0032
LBEX_PAG_SUMP	9/16/2021 16:05	AGG333	M	C169805	7.95	2710	2130	27.0	1390	1460	199	<1.0	243	<1.0	<1.0	28.0	0.579	0.512	1480			0.213	0.044	0.27	0.31	<0.0030
LBEX-B0	4/8/2021 16:05	ZP1744	M	C122796	7.31	2710	2440	6.5	1250	1310	356	<1.0	434	<1.0	<1.0	5.28	0.712	0.265	1340			0.686	0.010	0.17	0.18	<0.0030
LBEX-B0	5/23/2021 10:05	ZV8623	M	C134923	8.13	2520	2040	20.5	1120	1080	403	<1.0	491	<1.0	<1.0	6.51	0.697	0.248	1120			0.241	<0.010	0.19	0.19	<0.0030
LBEX-B0	7/19/2021 10:55	ACF039	M	C151946	7.99	2780	2210	12.5	1080	1330	390	<1.0	475	<1.0	<1.0	5.2	1.07	0.243	1400			0.387	0.012	0.042	0.054	0.0047
LBEX-B0	9/16/2021 16:25	AGG334	M	C169805	8.12	2680	2230	10.1	1290	1350	386	<1.0	471	<1.0	<1.0	5.27	0.888	0.223	1290			0.168	<0.010	0.033	0.033	<0.0030
LBEX-B0	10/17/2021 10:20	AIL269	M	C179325	7.93	2670	2300	33.3	1310	1260	386	<1.0	471	<1.0	<1.0	4.73	0.617	0.230	1330			0.125	<0.010	0.021	0.021	<0.0030
LBEX-B0	11/7/2021 16:30	AKE006	M	C186252	7.74	2670	2140	13.8	1260	1260	424	<1.0	517	<1.0	<1.0	7.79	0.841	0.469	1290			0.479	<0.010	0.11	0.11	0.0037
LBGC-Debris-US	3/19/2021 11:45	ZM8868	M	C118061				263																		
LBGC-Debris-US	3/28/2021 14:00	ZN9520	M	C120093				335																		
LBGC-Debris-US	4/1/2021 12:05	ZO4129	M	C121132				1860																		
LBGC-Debris-US	4/6/2021 13:15	ZO9476	M	C122250				2340																		
LBGC-Debris-US	4/29/2021 14:00	ZS2294	M	C128584				34700																		
LBGC-Debris-US	5/8/2021 11:40	ZT6591	M	C130995			1060	17000																		
LBGC-Debris-US	5/12/2021 14:40	ZU2128	M	C131927				16700																		
LBGC-Debris-US	5/18/2021 11:20	ZV2805	M	C133850				>20000																		
LBGC-Debris-US	5/27/2021 14:00	ZW4836	M	C136103			1350	2000																		
LBGC-Debris-US	6/3/2021 14:15	ZX7155	M	C138404				5890																		
LBGC-Debris-US	6/12/2021 15:40	ZZ1990	M	C141056				1320																		
LBGC-Debris-US	6/18/2021 13:00	AAC478	M	C142867			1020	2790																		
LBGC-Debris-US	6/24/2021 10:25	AAQ178	M	C144970				954																		
LBGC-Debris-US	7/3/2021 14:45	ABE029	M	C147272				14.9																		
LBGC-Debris-US	7/10/2021 14:50	ABP531	M	C149429			892	6.1																		
LBGC-Debris-US	7/17/2021 11:35	ACC248	M	C151542				197																		
LBGC-Debris-US	7/22/2021 10:25	ACL555	M	C152988				2370																		
LBGC-Debris-US	8/7/2021 17:15	ADM466	M	C157545				2640																		
LBGC-Debris-US	8/22/2021 17:00	AEI417	M	C161433			730	7100																		
LBGC-Debris-US	8/26/2021 16:15	AER562	M	C163145				68.0																		

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBGC-Debris-US	9/12/2021 15:20	AFV420	M	C168037			956	2.9																		
LBGC-Debris-US	9/17/2021 13:15	AGG312	M	C169799				8.1																		
LBGC-Debris-US	10/24/2021 15:00	AIZ354	M	C181544			896	<0.98																		
LBGC-Debris-US	10/28/2021 10:20	AJL911	M	C183658				2.5																		
LBGC-OUT	3/19/2021 12:20	ZM8869	M	C118061				128																		
LBGC-OUT	3/28/2021 14:20	ZN9523	M	C120093				598																		
LBGC-OUT	4/1/2021 12:15	ZO4130	M	C121132				117																		
LBGC-OUT	4/6/2021 13:25	ZO9477	M	C122250				48.6																		
LBGC-OUT	4/29/2021 14:10	ZS2295	M	C128584				18300																		
LBGC-OUT	5/8/2021 11:10	ZT6590	M	C130995			980	15500																		
LBGC-OUT	5/12/2021 14:00	ZU2127	M	C131927				11900																		
LBGC-OUT	5/18/2021 12:05	ZV2806	M	C133850				12200																		
LBGC-OUT	5/27/2021 14:20	ZW4837	M	C136103			1370	5280																		
LBGC-OUT	6/3/2021 13:20	ZX7154	M	C138404				4240																		
LBGC-OUT	6/12/2021 15:50	ZZ1991	M	C141056				695																		
LBGC-OUT	6/18/2021 12:40	AAC477	M	C142867			973	1280																		
LBGC-OUT	6/24/2021 11:30	AAQ179	M	C144970				154																		
LBGC-OUT	7/3/2021 13:25	ABE028	M	C147272				16.9																		
LBGC-OUT	7/10/2021 15:00	ABP532	M	C149429			880	8.3																		
LBGC-OUT	7/17/2021 12:50	ACC249	M	C151542				222																		
LBGC-OUT	7/22/2021 10:40	ACL556	M	C152988				1010																		
LBGC-OUT	8/7/2021 16:05	ADM465	M	C157545				1280																		
LBGC-OUT	8/22/2021 16:50	AEI418	M	C161433			830	6110																		
LBGC-OUT	8/26/2021 14:55	AER561	M	C163145				9.3																		
LBGC-OUT	9/12/2021 15:30	AFV421	M	C168037			896	16.6																		
LBGC-OUT	9/17/2021 12:05	AGG311	M	C169799				22.5																		
LBGC-OUT	10/24/2021 15:20	AIZ355	M	C181544			896	<1.0																		
LBGC-OUT	10/28/2021 10:55	AJL912	M	C183658				1.3																		
MWTF-PAG-POND	1/6/2021 7:00	ZD0207	M	C100919	8.19			12		323																
MWTF-PAG-POND	1/13/2021 9:05	ZD7921	M	C102466	8.20			28		298																
MWTF-PAG-POND	1/16/2021 9:10	ZE4103	M	C103710	8.36			23		329																
MWTF-PAG-POND	2/10/2021 7:30	ZH5701	M	C108783	8.14			75		297																
MWTF-PAG-POND	2/17/2021 8:30	ZI2103	M	C110147	8.15			100		260																
MWTF-PAG-POND	2/25/2021 9:00	ZJ5659	M	C112156	7.79			30		234																
MWTF-PAG-POND	3/3/2021 9:00	ZK6879	M	C114008	8.25			69		223																
MWTF-PAG-POND	3/10/2021 9:05	ZL6784	M	C115704	8.18			53	257	247																
MWTF-PAG-POND	3/17/2021 9:05	ZM5401	M	C117370	8.24			190	259	249																
MWTF-PAG-POND	3/24/2021 9:00	ZN4130	M	C119033	8.28			75	220	199																
MWTF-PAG-POND	3/31/2021 7:00	ZO2644	M	C120786	8.61			110	197	175																
MWTF-PAG-POND	4/7/2021 9:05	ZO9398	M	C122214	8.49			23	253	255																
MWTF-PAG-POND	4/14/2021 9:05	ZP7263	M	C123955	8.88			130	283	256																
MWTF-PAG-POND	4/21/2021 7:00	ZQ7688	M	C125899	8.67			1700	180	164																
MWTF-PAG-POND	4/28/2021 9:15	ZR8166	M	C127754	8.55			67	165	141																
MWTF-PAG-POND	5/5/2021 9:05	ZS8920	M	C129714	8.62			18	197	187																
MWTF-PAG-POND	5/12/2021 9:05	ZU0684	M	C131710	8.61			27	213	199																
MWTF-PAG-POND	5/19/2021 8:45	ZV2958	M	C133889	8.64			95	219	180																
MWTF-PAG-POND	5/26/2021 8:45	ZW0042	M	C135196	8.42			180	270	252																
MWTF-PAG-POND	6/1/2021 8:05	ZX2962	M	C137634	9.00			78	130	104																
MWTF-PAG-POND	6/9/2021 9:15	ZY5024	M	C139832	8.83			35	179	167																
MWTF-PAG-POND	6/16/2021 9:10	ZZ8821	M	C142309	9.91			67	86.9	63.1																
MWTF-PAG-POND	6/23/2021 9:00	AAK290	M	C144096	9.56			3900	420																	
MWTF-PAG-POND	6/30/2021 9:10	AAY996	M	C146526	8.61			140	136	94.7																
MWTF-PAG-POND	7/7/2021 9:10	ABJ035	M	C148208	8.65			81	173	148																
MWTF-PAG-POND	7/14/2021 9:00	ABT742	M	C150153	8.55			26	224	80.6																
MWTF-PAG-POND	7/14/2021 9:25	ACG114	M	C152141	8.38			100	315	292																
MWTF-PAG-POND	7/28/2021 9:10	ACU801	M	C154587	8.55			200	166	151																
MWTF-PAG-POND	8/4/2021 9:10	ADE503	M	C156226	9.97			85	72.6	43.9																
MWTF-PAG-POND	8/11/2021 9:15	ADP908	M	C158213	8.90			78	162	125																
MWTF-PAG-POND	8/18/2021 9:00	ADZ879	M	C160258	8.45			30	182	182																
MWTF-PAG-POND	8/25/2021 9:10	AEN303	M	C162336	8.24			39	575	524																
MWTF-PAG-POND	9/1/2021 9:10	AFA893	M	C164810	8.26			28	301	276																
MWTF-PAG-POND	9/8/2021 9:10	AFL367	M	C166567	8.44			8.3	230	212																
MWTF-PAG-POND	9/15/2021 9:10	AGA403	M	C168915	8.21			69	294	138																
MWTF-PAG-POND	9/22/2021 9:10	AGO150	M	C171030	8.39			28	197	182																
MWTF-PAG-POND	9/29/2021 9:05	AHB517	M	C173306	8.01			17	204	204																
MWTF-PAG-POND	10/13/2021 9:10	AIB250	M	C177602	8.64			47	123	96.8																
MWTF-PAG-POND	10/20/2021 9:05	AIR351	M	C180292	8.59			95	157	116																
MWTF-PAG-POND	10/27/2021 9:05	AJF092	M	C182468	8.29			16	217	220																
MWTF-PAG-POND	11/3/2021 8:50	AJU897	M	C184917	8.36			53	192	176																

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWTF-PAG-POND	11/10/2021 9:00	AKL845	M	C187287	8.53			120	183	143																
MWTF-PAG-POND	11/17/2021 8:50	AKV482	M	C188716	8.49			99	171	155																
MWTF-PAG-POND	11/24/2021 8:50	ALZ944	M	C194563	8.44			12	153	164																
MWTF-PAG-POND	12/1/2021 9:00	ALV046	M	C193508	8.21			11	210	194																
MWTF-PAG-POND	12/8/2021 9:15	ALF842	M	C190633	8.16			120	243	232																
MWTF-PAG-POND	12/15/2021 9:00	ALX789	M	C194026	8.16			27	267	243																
MWTF-PAG-POND	12/22/2021 8:50	AMM562	M	C196867	7.83			1600	517	362																
MWTF-CELL-3	1/6/2021 7:10	ZD0208	M	C100919	8.16			3.7	159	167																
MWTF-CELL-3	1/13/2021 9:15	ZD7922	M	C102466	7.99			6.6	162	157																
MWTF-CELL-3	1/16/2021 9:15	ZE4104	M	C103710	7.67			3.7	201	193																
MWTF-CELL-3	2/10/2021 7:20	ZH5702	M	C108783	7.82			5.3	167	160																
MWTF-CELL-3	2/17/2021 8:20	ZI2104	M	C110147	7.61			4.4	147	155																
MWTF-CELL-3	2/25/2021 9:10	ZJ5660	M	C112156	6.74			4.9	157	152																
MWTF-CELL-3	3/3/2021 9:10	ZK6880	M	C114008	7.83			5.4	134	146																
MWTF-CELL-3	3/10/2021 9:15	ZL6785	M	C115704	7.85			7.4	154	158																
MWTF-CELL-3	3/17/2021 9:15	ZM5402	M	C117370	7.81			8.6	142	144																
MWTF-CELL-3	3/24/2021 9:10	ZN4131	M	C119033	7.88			6.9	136	134																
MWTF-CELL-3	3/31/2021 7:10	ZO2645	M	C120786	7.76			6.5	120	116																
MWTF-CELL-3	4/7/2021 9:15	ZO9399	M	C122214	7.48			5.3	167	169																
MWTF-CELL-3	4/14/2021 9:15	ZP7264	M	C123955	8.17			6.8	234	231																
MWTF-CELL-3	4/21/2021 7:10	ZQ7689	M	C125899	7.89			4.1	189	184																
MWTF-CELL-3	4/28/2021 9:30	ZR8167	M	C127754	7.90			5.0	131	127																
MWTF-CELL-3	5/5/2021 9:15	ZS8921	M	C129714	8.05			8.0	112	109																
MWTF-CELL-3	5/12/2021 9:15	ZU0685	M	C131710	8.15			6.7	125	111																
MWTF-CELL-3	5/19/2021 8:55	ZV2959	M	C133889	8.03			10	95.0	94.7																
MWTF-CELL-3	5/26/2021 8:50	ZW0043	M	C135196	8.04			12	151	150																
MWTF-CELL-3	6/1/2021 8:10	ZX2963	M	C137634	10.6			6.3	145	142																
MWTF-CELL-3	6/9/2021 9:05	ZY5025	M	C139832	7.89			2.9	117	118																
MWTF-CELL-3	6/16/2021 9:15	ZZ8822	M	C142309	8.20			<1.0	108	108																
MWTF-CELL-3	6/23/2021 9:10	AAK291	M	C144096	7.67			5.8	126	124																
MWTF-CELL-3	6/30/2021 9:15	AAY997	M	C146526	8.01			1.6	112	104																
MWTF-CELL-3	7/7/2021 9:15	ABJ036	M	C148208	7.96			2.5	80.6	75.2																
MWTF-CELL-3	7/14/2021 9:00	ACG115	M	C152141	8.08			6.0	77.6	69.3																
MWTF-CELL-3	7/14/2021 9:30	ABT743	M	C150153	8.11			7.7	75.2	67.3																
MWTF-CELL-3	7/28/2021 9:15	ACU802	M	C154587	7.41			5.1	288	141																
MWTF-CELL-3	8/4/2021 9:15	ADE504	M	C156226	7.93			3.2	158	159																
MWTF-CELL-3	8/11/2021 9:20	ADP909	M	C158213	7.54			3.9	201	194																
MWTF-CELL-3	8/18/2021 9:10	ADZ880	M	C160258	8.04			3.5	125	114																
MWTF-CELL-3	8/25/2021 9:15	AEN304	M	C162336	7.35			4.3	365	385																
MWTF-CELL-3	9/1/2021 9:15	AFA894	M	C164810	7.11			<1.0	360	357																
MWTF-CELL-3	9/8/2021 9:10	AFL368	M	C166567	7.83			<1.0	205	190																
MWTF-CELL-3	9/15/2021 9:00	AGA404	M	C168915	8.18			8.9	141	145																
MWTF-CELL-3	9/22/2021 9:15	AGO151	M	C171030	7.92			5.3	128	122																
MWTF-CELL-3	9/29/2021 9:15	AHB518	M	C173306	7.42			8.6	99.8	100																
MWTF-CELL-3	10/6/2021 8:25	AHO703	M	C175648	7.76			16	88.9	89.1																
MWTF-CELL-3	10/13/2021 9:00	AIB251	M	C177602	7.96			3.5	79.4	65.5																
MWTF-CELL-3	10/20/2021 9:15	AIR352	M	C180292	8.03			4.9	63.3	61.7																
MWTF-CELL-3	10/27/2021 9:15	AJF093	M	C182468	7.01			5.3	88.8	92.6																
MWTF-CELL-3	11/3/2021 8:55	AJU898	M	C184917	6.99			5.2	113	110																
MWTF-CELL-3	11/10/2021 9:00	AKL846	M	C187287	7.35			8.6	86.0	83.2																
MWTF-CELL-3	11/17/2021 8:55	AKV483	M	C188716	7.97			7.9	88.3	97.9																
MWTF-CELL-3	11/24/2021 8:55	ALZ945	M	C194563	7.78			13	88.7	106																
MWTF-CELL-3	12/1/2021 9:20	ALV047	M	C193508	7.16			7.7	87.9	84.2																
MWTF-CELL-3	12/8/2021 9:10	ALF841	M	C190633	7.05			8.5	131	126																
MWTF-CELL-3	12/15/2021 9:10	ALX791	M	C194026	6.75			8.9	133	131																
MWTF-CELL-3	12/22/2021 8:55	AMM563	M	C196867	6.64			2.7	148	139																
MWTF-CELL-3	12/29/2021 8:30	AMO192	M	C197186	6.65			6.9	138	131																
MWTF-CELL-1-PIPE	1/6/2021 7:05	ZD0209	M	C100919				290																		
MWTF-CELL-1-PIPE	1/13/2021 9:10	ZD7923	M	C102466				180																		
MWTF-CELL-1-PIPE	1/16/2021 9:05	ZE4105	M	C103710				250																		
MWTF-CELL-1-PIPE	2/10/2021 7:35	ZH5703	M	C108783				310																		
MWTF-CELL-1-PIPE	2/17/2021 8:40	ZI2105	M	C110147				150																		
MWTF-CELL-1-PIPE	2/25/2021 9:05	ZJ5661	M	C112156				170																		
MWTF-CELL-1-PIPE	3/3/2021 9:05	ZK6881	M	C114008				41																		
MWTF-CELL-1-PIPE	3/10/2021 9:10	ZL6786	M	C115704				62																		
MWTF-CELL-1-PIPE	3/17/2021 9:10	ZM5403	M	C117370				66																		
MWTF-CELL-1-PIPE	3/24/2021 9:05	ZN4132	M	C119033				62																		
MWTF-CELL-1-PIPE	3/31/2021 7:05	ZO2646	M	C120786				48																		
MWTF-CELL-1-PIPE	4/7/2021 9:10	ZO9400	M	C122214				130																		

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWTF-CELL-1-PIPE	4/14/2021 9:10	ZP7265	M	C123955				110																		
MWTF-CELL-1-PIPE	4/21/2021 7:05	ZQ7690	M	C125899				980																		
MWTF-CELL-1-PIPE	4/28/2021 9:20	ZR8168	M	C127754				170																		
MWTF-CELL-1-PIPE	5/5/2021 9:10	ZS8922	M	C129714				23																		
MWTF-CELL-1-PIPE	5/12/2021 9:10	ZU0686	M	C131710				52																		
MWTF-CELL-1-PIPE	5/19/2021 8:50	ZV2960	M	C133889				27																		
MWTF-CELL-1-PIPE	5/26/2021 8:55	ZW0044	M	C135196				1600																		
MWTF-CELL-1-PIPE	6/1/2021 8:15	ZX2964	M	C137634				25																		
MWTF-CELL-1-PIPE	6/9/2021 9:10	ZY5026	M	C139832				88																		
MWTF-CELL-1-PIPE	6/16/2021 9:05	ZZ8823	M	C142309				87																		
MWTF-CELL-1-PIPE	6/23/2021 9:15	AAK292	M	C144096				1600																		
MWTF-CELL-1-PIPE	6/30/2021 9:05	AAY998	M	C146526				64																		
MWTF-CELL-1-PIPE	7/7/2021 9:05	ABJ037	M	C148208				63																		
MWTF-CELL-1-PIPE	7/14/2021 9:15	ABT744	M	C150153				640																		
MWTF-CELL-1-PIPE	7/14/2021 9:30	ACG116	M	C152141				170																		
MWTF-CELL-1-PIPE	7/28/2021 9:05	ACU803	M	C154587				47																		
MWTF-CELL-1-PIPE	8/4/2021 9:05	ADE505	M	C156226				45																		
MWTF-CELL-1-PIPE	8/11/2021 9:20	ADP910	M	C158213				79																		
MWTF-CELL-1-PIPE	8/18/2021 9:05	ADZ881	M	C160258				92																		
MWTF-CELL-1-PIPE	8/25/2021 9:05	AEN305	M	C162336				68																		
MWTF-CELL-1-PIPE	9/1/2021 9:05	AFA895	M	C164810				260																		
MWTF-CELL-1-PIPE	9/8/2021 9:10	AFL369	M	C166567				250																		
MWTF-CELL-1-PIPE	9/15/2021 9:15	AGA405	M	C168915				220																		
MWTF-CELL-1-PIPE	9/22/2021 9:05	AGO152	M	C171030				150																		
MWTF-CELL-1-PIPE	9/29/2021 9:10	AHB519	M	C173306				250																		
MWTF-CELL-1-PIPE	10/13/2021 9:00	AIB252	M	C177602				160																		
MWTF-CELL-1-PIPE	10/20/2021 9:10	AIR353	M	C180292				19																		
MWTF-CELL-1-PIPE	10/27/2021 9:10	AJF094	M	C182468				280																		
MWTF-CELL-1-PIPE	11/3/2021 8:45	AJU899	M	C184917				92																		
MWTF-CELL-1-PIPE	11/10/2021 9:00	AKL847	M	C187287				250																		
MWTF-CELL-1-PIPE	11/17/2021 8:45	AKV484	M	C188716				280																		
MWTF-CELL-1-PIPE	11/24/2021 8:45	ALZ947	M	C194563				200																		
MWTF-CELL-1-PIPE	12/1/2021 9:30	ALV048	M	C193508				230																		
MWTF-CELL-1-PIPE	12/8/2021 10:00	ALF843	M	C190633				42																		
MWTF-CELL-1-PIPE	12/15/2021 9:05	ALX790	M	C194026				310																		
MWTF-CELL-1-PIPE	12/22/2021 8:45	AMM561	M	C196867				2200																		
PR-IDZ	1/10/2021 15:45	ZD6082	M	C102115				2.9															<0.010	0.060	0.060	
PR-IDZ	1/14/2021 9:10	ZD9467	M	C102853				2.6															<0.010	0.057	0.057	
PR-IDZ	1/16/2021 16:20	ZE3034	M	C103544				<1.0															<0.010	0.071	0.071	
PR-IDZ	1/22/2021 1:20	ZE9297	M	C104704				2.1															<0.010	0.054	0.054	
PR-IDZ	1/28/2021 13:55	ZF8631	M	C106327				4.6																		
PR-IDZ	2/6/2021 12:00	ZH3140	M	C108285				7.2																		
PR-IDZ	2/14/2021 10:39	ZI0122	M	C109675				7.1																		
PR-IDZ	2/18/2021 14:40	ZI6457	M	C110759				1.5																		
PR-IDZ	2/26/2021 13:30	ZJ8526	M	C112618				5.1																		
PR-IDZ	3/6/2021 11:30	ZL3538	M	C115040	7.71	199	134	7.3	94.4	94.9	83.1	<1.0	101	<1.0	<1.0	1.02	0.057	0.231	17.7			<0.015	<0.010	0.052	0.052	<0.0030
PR-IDZ	3/13/2021 14:45	ZM2424	M	C116756				3.5																		
PR-IDZ	3/20/2021 16:45	ZN1537	M	C118497				7.1																		
PR-IDZ	3/25/2021 16:10	ZN6327	M	C119610			131	4.2																		
PR-IDZ	4/3/2021 14:25	ZO6453	M	C121575	7.46	197	110	6.2	94.5	95.7	82.2	<1.0	100	<1.0	<1.0	1.56	0.054	<0.010	18.0			0.022	<0.010	0.061	0.061	<0.0030
PR-IDZ	4/5/2021 14:40	ZO7520	M	C121801	7.29	193	114	5.2	94.5	94.5	81.6	<1.0	99.5	<1.0	<1.0	1.24	0.059	<0.010	18.0			0.021	<0.010	0.061	0.061	<0.0030
PR-IDZ	4/6/2021 15:30	ZO9479	M	C122250	7.80	197	142	3.0	93.1	95.6	86.7	<1.0	106	<1.0	<1.0	0.75	0.055	<0.010	18.4			0.018	<0.010	0.050	0.050	<0.0030
PR-IDZ	4/7/2021 15:45	ZP0885	M	C122580	7.86	198	164	6.0	99.2	98.3	86.1	<1.0	105	<1.0	<1.0	0.76	0.056	<0.010	17.5			0.032	<0.010	0.042	0.042	0.0034
PR-IDZ	4/16/2021 12:10	ZQ1484	M	C124799			118	18.8																		
PR-IDZ	4/22/2021 11:15	ZR1316	M	C126529			180	24.4																		
PR-IDZ	5/3/2021 11:15	ZS6024	M	C129096				35.7																		
PR-IDZ	5/8/2021 15:40	ZT6589	M	C130995			128	78.7																		
PR-IDZ	5/14/2021 11:05	ZU4956	M	C132327				39.2																		
PR-IDZ	5/21/2021 11:30	ZV5662	M	C134400				40.9																		
PR-IDZ	5/27/2021 12:20	ZW4851	M	C136103			160	156																		
PR-IDZ	6/3/2021 12:10	ZX7153	M	C138404				171																		
PR-IDZ	6/9/2021 14:45	ZY6857	M	C140198				101																		
PR-IDZ	6/17/2021 13:50	AAC470	M	C142866			160	38.3																		
PR-IDZ	6/24/2021 15:50	AAQ181	M	C144970				21.0																		
PR-IDZ	6/30/2021 11:55	AAZ004	M	C146528	7.68	195	152	40.7	109	101	93.7	<1.0	114	<1.0	<1.0	1.06	<0.050	<0.010	16.5			0.020	<0.010	0.067	0.067	<0.0030
PR-IDZ	7/7/2021 12:30	ABK533	M	C148516	8.10	204	92	11.7	102	104	103	<1.0	125	<1.0	<1.0	<0.50	<0.050	<0.010	17.6			<0.015	<0.010	0.068	0.068	<0.0030
PR-IDZ	7/8/2021 12:30	ABM763	M	C148925			72	12.1																		
PR-IDZ	7/14/2021 15:05	ABX616	M	C150851	7.25	196	80	5.5	96.6	101	87.7	<1.0	107	<1.0	<1.0	<0.50	0.076	<0.010	15			0.031	<0.010	0.064	0.064	<0.0030
PR-IDZ	7/15/2021 16:55	ABY393	M	C150960				4.4																		

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
PR-IDZ	7/21/2021 16:40	ACH924	M	C152478	7.72	205	108	12.3	98.4	102	97.5	<1.0	119	<1.0	<1.0	<0.50	0.066	<0.010	16			<0.015	<0.010	0.065	0.065	<0.0030
PR-IDZ	7/27/2021 12:00	ACT045	M	C154246	7.90	196	104	4.1	96.5	94.2	96.3	<1.0	117	<1.0	<1.0	1.12	<0.050	<0.010	15.6			<0.015	<0.010	0.077	0.077	<0.0030
PR-IDZ	7/31/2021 13:40	ADA376	M	C155508			128	<1.0																		
PR-IDZ	8/11/2021 14:00	ADR992	M	C158615	7.16	210	124	5.3	107	105	98.2	<1.0	120	<1.0	<1.0	1.21	<0.050	<0.010	18.7			0.143	<0.010	0.054	0.054	<0.0030
PR-IDZ	8/18/2021 17:00	AED521	M	C160793	7.19	199	112	3.9	103	102	86.9	<1.0	106	<1.0	<1.0	1.39	<0.050	<0.010	16.8			0.081	<0.010	0.061	0.061	<0.0030
PR-IDZ	8/25/2021 16:00	AEP247	M	C162703	7.22	225	116	19.7	105	104	92.7	<1.0	113	<1.0	<1.0	<0.50	0.052	<0.010	19.5			0.059	<0.010	0.051	0.051	<0.0030
PR-IDZ	9/1/2021 14:40	AFC998	M	C165103	7.19	212	148	4.0	111	98.5	92.1	<1.0	112	<1.0	<1.0	0.87	<0.050	<0.010	18.7			0.046	<0.010	0.12	0.12	<0.0030
PR-IDZ	9/8/2021 12:20	AFO062	M	C167059	7.05	198	116	3.0	104	97.5	86.9	<1.0	106	<1.0	<1.0	1.11	<0.050	<0.010	16.4			0.020	<0.010	0.055	0.055	<0.0030
PR-IDZ	9/15/2021 11:45	AGD170	M	C169361	8.03	191	84	3.0	97.6	96.6	82.0	<1.0	100	<1.0	<1.0	1.11	<0.050	<0.010	15.4			<0.015	<0.010	0.070	0.070	<0.0030
PR-IDZ	9/19/2021 14:55	AGJ669	M	C170331	7.76	190	72	3.1	100	97.1	94.1	<1.0	115	<1.0	<1.0	0.52	0.095	<0.010	15.3			0.019	<0.010	<0.010	<0.010	0.0031
PR-IDZ	9/22/2021 12:15	AGR069	M	C171568	7.97	191	120	4.7	103	97.0	80.8	<1.0	98.6	<1.0	<1.0	1.12	<0.050	<0.010	15.2			<0.015	<0.010	0.063	0.063	<0.0030
PR-IDZ	9/29/2021 13:50	AHF735	M	C174181	7.90	193	84	3.1	100	107	80.2	<1.0	97.9	<1.0	<1.0	1.15	<0.050	<0.010	16.4			0.082	<0.010	0.058	0.058	<0.0030
PR-IDZ	10/6/2021 12:50	AHR788	M	C176098	7.45	191	100	2.5	97.8	91.4	79.9	<1.0	97.5	<1.0	<1.0	1.31	<0.050	<0.010	18.5			0.019	<0.010	0.076	0.076	<0.0030
PR-IDZ	10/13/2021 12:25	AIE378	M	C178189	7.73	178	112	4.9	90.1	91.4	87.9	<1.0	107	<1.0	<1.0	<0.50	<0.050	0.036	14.0			0.023	<0.010	0.047	0.047	0.0032
PR-IDZ	10/20/2021 14:00	AIT537	M	C180689	7.82	185	156	2.96	86.3	86.9	92.5	<1.0	113	<1.0	<1.0	<0.50	<0.050	<0.010	14.7			0.024	<0.010	0.075	0.075	<0.0030
PR-IDZ	10/27/2021 14:05	AJH728	M	C182990				3.9																		
PR-IDZ	11/6/2021 12:25	AKD995	M	C186250	8.08	192	112	2.9	96.0	90.4	81.8	<1.0	99.7	<1.0	<1.0	0.66	<0.050	<0.010	15.2			<0.015	<0.010	0.072	0.072	0.0034
PR-IDZ	11/10/2021 16:00	AKN276	M	C187468	8.02	182	112	2.50	90.8	85.0	78.0	<1.0	95.1	<1.0	<1.0	<0.50	<0.050	<0.010	14.2			<0.015	<0.010	0.083	0.083	<0.0030
PR-IDZ	11/17/2021 12:50	AKY312	M	C189131				6.1																		
PR-IDZ	11/25/2021	FJ2101334-004	M	FJ2101334	8.03	186	96	5.2	91.6	101	83.3	<1.0	102	<1.0	<1.0	<0.50	0.042	<0.050	14.2			0.0118	<0.0010	0.0824	0.0824	<0.0010
PR-IDZ	12/2/2021 13:30	FJ2101375-004	M	FJ2101375	8.14		131	3.5	94.1	93.1	91.7	<1.0	112	<1.0	<1.0	0.36	0.047	<0.050	17.9			<0.0050	<0.0010	0.104	0.104	<0.0010
PR-IDZ	12/7/2021 12:40	FJ2101420-003	M	FJ2101420	8.07	188	106	8.6	97.5	91.6	80.1	<1.0	97.7	<1.0	<1.0	0.16	0.036	<0.050	14.1			<0.0050	<0.0010	0.0789		<0.0010
PR-IDZ	12/15/2021 15:30	FJ2101472-004	M	FJ2101472	8.12	188	116	2.7	93.4	98.0	86.2	<1.0	105	<1.0	<1.0	<0.50	0.041	<0.050	14.7			<0.0050	<0.0010	0.0791	0.0791	<0.0010
PR-IDZ	12/23/2021 14:15	FJ2101512-003	M	FJ2101512	8.01	197	114	8.0	101	96.7	82.5	<1.0	101	<1.0	<1.0	<0.50	0.042	<0.050	14.3			<0.0050	<0.0010	0.0760	0.0760	<0.0010
PR-IDZ	12/30/2021 14:45	FJ2200029-002	M	FJ2200029	7.94	190	118	2.6	104	96.7		<1.0				0.16	0.034	<0.050	14.7			<0.0050	<0.0010	0.0788		<0.0010
PR-Isolation-Zone	1/12/2021 9:00	ZD9466	M	C102853				2.5															<0.010	0.073	0.073	
PR-Isolation-Zone	1/16/2021 16:15	ZE3033	M	C103544				1.6															<0.010	0.087	0.087	
PR-Isolation-Zone	1/22/2021 13:30	ZE9300	M	C104704				<1.0																		
PR-Isolation-Zone	1/28/2021 13:40	ZF8630	M	C106327				3.2																		
PR-Isolation-Zone	2/6/2021 11:50	ZH3139	M	C108285				10.1																		
PR-Isolation-Zone	2/14/2021 10:45	ZI0123	M	C109675				15.5																		
PR-Isolation-Zone	2/18/2021 14:30	ZI6456	M	C110759				10.1																		
PR-Isolation-Zone	2/26/2021 12:50	ZJ8525	M	C112618				9.1																		
PR-Isolation-Zone	3/6/2021 12:15	ZL3539	M	C115040				2.0																		
PR-Isolation-Zone	3/13/2021 14:30	ZM2423	M	C116756				3.1																		
PR-Isolation-Zone	3/20/2021 16:20	ZN1536	M	C118497				7.1																		
PR-Isolation-Zone	3/25/2021 17:00	ZN6326	M	C119610			142	2.3																		
PR-Isolation-Zone	4/4/2021 12:10	ZO6465	M	C121580	7.99	358	232	5.7	140	141	125	<1.0	152	<1.0	<1.0	4.43	0.083	0.055	55.1			0.042	<0.010	0.047	0.047	<0.0030
PR-Isolation-Zone	4/6/2021 15:05	ZO9473	M	C122250	8.03	244	132	2.9	111	112	102	<1.0	124	<1.0	<1.0	1.34	0.083	<0.010	24.6			0.027	<0.010	0.033	0.033	0.0039
PR-Isolation-Zone	4/7/2021 15:25	ZP0884	M	C122580	7.94	231	148	5.3	115	115	101	<1.0	123	<1.0	<1.0	1.05	0.083	<0.010	21.2			0.022	<0.010	0.029	0.029	0.0036
PR-Isolation-Zone	4/16/2021 11:50	ZQ1483	M	C124799			110	3.2																		
PR-Isolation-Zone	4/22/2021 11:00	ZR1317	M	C126529			232	2.5																		
PR-Isolation-Zone	5/3/2021 11:00	ZS6023	M	C129096				1.4																		
PR-Isolation-Zone	5/8/2021 15:20	ZT6588	M	C130995			160	2.7																		
PR-Isolation-Zone	5/14/2021 10:45	ZU4955	M	C132327				1.4																		
PR-Isolation-Zone	5/21/2021 10:30	ZV5661	M	C134400				<1.0																		
PR-Isolation-Zone	5/27/2021 12:00	ZW4843	M	C136103			148	<1.0																		
PR-Isolation-Zone	6/3/2021 11:00	ZX7152	M	C138404				1.7																		
PR-Isolation-Zone	6/9/2021 14:30	ZY6856	M	C140198				<1.0																		
PR-Isolation-Zone	6/17/2021 13:30	AAC469	M	C142866			196	1.3																		
PR-Isolation-Zone	6/24/2021 15:35	AAQ180	M	C144970				1.8																		
PR-Isolation-Zone	6/30/2021 11:45	AAZ009	M	C146528				1.0																		
PR-Isolation-Zone	7/8/2021 13:00	ABM764	M	C148925			112	<1.0																		
PR-Isolation-Zone	7/15/2021 16:30	ABY392	M	C150960				<1.0																		
PR-Isolation-Zone	7/21/2021 16:15	ACH934	M	C152481				42.9																		
PR-Isolation-Zone	7/31/2021 13:20	ADA375	M	C155508			164	2.8																		
PR-Isolation-Zone	8/11/2021 13:30	ADR993	M	C158615			116	6.8																		
PR-Isolation-Zone	8/18/2021 12:20	AED523	M	C160793			176	13.3																		
PR-Isolation-Zone	8/25/2021 17:35	AEP249	M	C162703				1.6																		
PR-Isolation-Zone	9/1/2021 16:45	AFD000	M	C165103				<1.0																		
PR-Isolation-Zone	9/8/2021 11:50	AFO063	M	C167059			152	1.1																		
PR-Isolation-Zone	9/15/2021 11:05	AGD166	M	C169361				<1.0																		
PR-Isolation-Zone	9/22/2021 11:20	AGR071	M	C171568				1.2																		
PR-Isolation-Zone	9/29/2021 13:00	AHI613	M	C174181			112	<1.0																		
PR-Isolation-Zone	10/6/2021 13:10	AHR790	M	C176098				<1.0																		
PR-Isolation-Zone	10/13/2021 12:40	AIE381	M	C178189				<1.0																		
PR-Isolation-Zone	10/20/2021 13:00	AIT540	M	C180689			132	1.5																		
PR-Isolation-Zone	10/27/2021 15:00	AJH729	M	C182990				1.99																		
PR-Isolation-Zone	11/3/2021 12:55	AJX287	M	C185315				<1.0																		

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
PR-Isolation-Zone	11/10/2021 13:00	AKN279	M	C187468			144	<1.0																		
PR-US-R5A	5/11/2021 13:55	ZU0126	M	C131574	7.93	210	152	151	131	113	97.8	<1.0	119	<1.0	<1.0	1.33	0.070	<0.010	15.3			0.035	<0.010	0.13	0.13	0.0039
PR-US-R5A	5/12/2021 13:25	ZU2105	M	C131920	8.03	222	136	174	143	119	102	<1.0	124	<1.0	<1.0	1.83	0.067	<0.010	14.6			0.029	<0.010	0.10	0.10	0.0038
PR-US-R5A	5/13/2021 13:25	ZU4965	M	C132331	7.98	223	136	116	130	112	105	<1.0	127	<1.0	<1.0	0.76	0.071	<0.010	14.5			0.034	<0.010	0.10	0.10	0.0031
PR-US-R5A	7/27/2021 13:20	ACT047	M	C154246	7.90	196	104	3.5	96.2	93.0	103	<1.0	125	<1.0	<1.0	0.86	0.051	<0.010	16.0			0.030	<0.010	0.072	0.072	<0.0030
PR-US-R5A	8/11/2021 14:50	ADR991	M	C158615	7.34	448	252	3.1	230	245	154	<1.0	188	<1.0	<1.0	3.02	0.050	0.040	86.4			0.134	<0.010	0.037	0.037	0.0051
PR-US-R5A	6/30/2021 13:30	AAZ008	M	C146528	7.81	187	148	10.1	101	<0.50	87.2	<1.0	106	<1.0	<1.0	1.22	0.051	<0.010	15.3			0.024	<0.010	0.076	0.076	<0.0030
PR-US-R5A	7/7/2021 14:00	ABK534	M	C148516	8.07	198	84	7.1	93.7	102	90.5	<1.0	110	<1.0	<1.0	0.78	<0.050	<0.010	16.5			0.091	<0.010	0.064	0.064	<0.0030
PR-US-R5A	7/14/2021 11:05	ABX617	M	C150851	7.50	192	96	3.5	92.3	98.0	96.7	<1.0	118	<1.0	<1.0	<0.50	<0.050	<0.010	14			0.026	<0.010	0.065	0.065	<0.0030
PR-US-R5A	7/21/2021 12:50	ACH923	M	C152478	7.47	197	92	17.1	94.2	96.8	97.8	<1.0	119	<1.0	<1.0	<0.50	<0.050	<0.010	15			<0.015	<0.010	0.064	0.064	<0.0030
PR-US-R5A	8/18/2021 13:10	AED522	M	C160793	7.34	262	92	3.1	137	129	97.1	<1.0	118	<1.0	<1.0	0.97	<0.050	0.011	38.0			0.018	<0.010	0.032	0.032	<0.0030
PR-US-R5A	8/25/2021 13:20	AEP246	M	C162703	7.25	335	156	34.3	145	145	119	<1.0	145	<1.0	<1.0	1.19	0.056	0.011	49.1			0.041	<0.010	0.041	0.041	0.0031
PR-US-R5A	9/1/2021 13:30	AFC997	M	C165103	7.23	308	232	3.7	149	138	114	<1.0	139	<1.0	<1.0	1.29	<0.050	0.013	49.4			<0.015	<0.010	0.034	0.034	<0.0030
PR-US-R5A	9/8/2021 13:20	AFO061	M	C167059	7.05	203	116	<1.0	105	99.1	88.3	<1.0	108	<1.0	<1.0	1.12	<0.050	<0.010	17.6			<0.015	<0.010	0.038	0.038	<0.0030
PR-US-R5A	9/15/2021 13:50	AGD169	M	C169361	7.93	482	308	4.5	231	223	167	<1.0	203	<1.0	<1.0	2.36	<0.050	0.025	85.9			0.023	<0.010	0.039	0.039	<0.0030
PR-US-R5A	9/19/2021 12:35	AGJ668	M	C170331	7.68	186	96	1.8	97.2	96.7	96.4	<1.0	118	<1.0	<1.0	0.72	<0.050	<0.010	14.5			<0.015	<0.010	0.066	0.066	<0.0030
PR-US-R5A	9/22/2021 13:25	AGR070	M	C171568	7.88	216	128	13.1	110	104	98.5	<1.0	120	<1.0	<1.0	1.24	<0.050	<0.010	19.2			<0.015	<0.010	0.065	0.065	<0.0030
PR-US-R5A	9/29/2021 15:40	AHF736	M	C174181	7.97	188	92	4.4	96.7	105	78.7	<1.0	96.0	<1.0	<1.0	0.96	<0.050	<0.010	15.4			<0.015	<0.010	0.048	0.048	<0.0030
PR-US-R5A	10/6/2021 14:55	AHR787	M	C176098	7.10	182	84	17.7	98.8	90.0	77.7	<1.0	94.7	<1.0	<1.0	0.97	<0.050	<0.010	16.2			<0.015	<0.010	0.067	0.067	<0.0030
PR-US-R5A	10/13/2021 14:00	AIE380	M	C178189	7.78	173	92	5.9	85.7	89.7	87.2	<1.0	106	<1.0	<1.0	<0.50	<0.050	0.028	13.2			<0.015	<0.010	0.045	0.045	<0.0030
PR-US-R5A	10/20/2021 15:50	AIT538	M	C180689	7.81	183	124	2.9	88.0	88.5	86.1	<1.0	105	<1.0	<1.0	<0.50	<0.050	<0.010	14.5			<0.015	<0.010	0.072	0.072	<0.0030
PR-US-R5A	11/10/2021 15:00	AKN277	M	C187468	8.01	179	116	2.9	90.2	83.8	76.7	<1.0	93.5	<1.0	<1.0	<0.50	<0.050	<0.010	14.0			<0.015	<0.010	0.082	0.082	0.0031
PR-US-R5A	11/25/2021	FJ2101334-006	M	FJ2101334	8.02	184	98	3.7	86.6	101	83.0	<1.0	101	<1.0	<1.0	<0.50	0.042	<0.050	13.9			<0.0050	<0.0010	0.0776	0.0776	<0.0010
PR-US-R5A	12/2/2021 16:00	FJ2101375-005	M	FJ2101375	8.25		235	7.4	232	194	219	<1.0	267	<1.0	<1.0	1.38	0.053	<0.050	67.0			0.0096	<0.0010	0.0874	0.0874	0.0028
PR-US-R5A	12/23/2021 15:00	FJ2101512-004	M	FJ2101512	8.21	185	108	19.9	98.9	98.1	79.4	<1.0	96.9	<1.0	<1.0	<0.50	0.043	<0.050	14.0			<0.0050	<0.0010	0.0763	0.0763	0.0011
R5a_MOB_US	7/27/2021 13:00	ACT046	M	C154246	8.20	247	200	24.9	128	120	127	<1.0	155	<1.0	<1.0	0.80	0.106	<0.010	12.5			0.022	<0.010	<0.010	<0.010	0.0034
RBAC-Sump-BT	5/2/2021 14:25	ZS6049	M	C129102	8.19	1380	828	29.3	182	174	375	<1.0	457	<1.0	<1.0	60.4	0.496	0.734	252			0.416	0.055	1.6	1.6	0.0091
RBAC-Sump-BT	7/24/2021 13:30	ACO404	M	C153513	8.21	926	600	147	210	189	377	<1.0	459	<1.0	<1.0	38.1	0.234	0.393	67.7			0.036	<0.010	0.91	0.91	0.0055
RBAC-Sump-BT	9/4/2021 14:40	AFH293	M	C165785	7.97	827	518	2.8	218	189	347	<1.0	423	<1.0	<1.0	38.1	0.150	0.451	40.8			0.038	<0.0050	1.02	1.02	<0.0030
RBAC-Sump-BT	10/12/2021 13:50	AIB247	M	C177600	7.66	481	276	2.5	114	107	129	<1.0	157	<1.0	<1.0	10.3	0.177	0.219	103			0.048	<0.010	0.15	0.15	<0.0030
RBDT-Sump	6/29/2021 16:00	AAY931	M	C146501	8.69	1520	760	19.4	117	103	343	13.4	385	16.1	<1.0	29.9	0.608	0.432	352			2.10	0.60	0.77	1.4	0.901
RSEM-L5E-P2-EOP	6/30/2021 0:40	AAZ005	M	C146528	8.31	1480	1040	2.1	378	358	152	<1.0	185	<1.0	<1.0	36.6	0.314	0.528	573			0.068	0.026	1.3	1.4	<0.0030
RSEM-L5E-P2-EOP	7/1/2021 12:15	ABB247	M	C146903	8.30	1680	1220	2.1	364	336	175	<1.0	214	<1.0	<1.0	45.9	0.326	0.581	657			0.059	0.035	1.7	1.7	<0.0030
RSEM-L5E-P2-EOP	7/2/2021 11:10	ABB256	M	C146905	8.31	1800	1280	1.7	346	360	166	<1.0	202	<1.0	<1.0	49.4	0.344	0.644	717			0.069	0.041	1.9	1.9	<0.0030
RSEM-L5E-P2-EOP	7/9/2021 12:30	ABM750	M	C148923	8.34	2020	1250	1.8	329	335	163	1.2	196	1.4	<1.0	50.9	0.387	0.715	747			0.118	0.047	1.8	1.9	<0.0030
RSEM-L5E-P2-EOP	7/10/2021 14:00	ABP529	M	C149429	8.33	2040	1340	1.4	342	325	168	2.5	199	3.0	<1.0	49.9	0.317	0.741	841			0.095	0.051	2.0	2.0	0.0033
RSEM-L5E-P2-EOP	7/11/2021 12:00	ABP675	M	C149459	8.38	2160	1420	6.1	333	324	172	3.2	202	3.8	<1.0	55.3	0.326	0.796	780			0.088	0.056	2.1	2.2	<0.0030
RSEM-L5E-P2-EOP	7/12/2021 6:30	ABP855	M	C149486	8.39	2190	1420	2.8	323	324	193	2.9	228	3.5	<1.0	56.4	0.362	0.834	751			0.091	0.057	2.1	2.2	<0.0030
RSEM-L5E-P2-EOP	7/13/2021 11:00	ABU092	M	C150243	8.46	2270	1560	2.1	318	336	206	4.5	241	5.4	<1.0	55	0.411	0.843	840			0.086	0.057	2.3	2.3	<0.0030
RSEM-L5E-P2-EOP	7/14/2021 12:20	ABX612	M	C150851	8.46	2330	1440	<1.0	299	327	201	3.5	237	4.2	<1.0	57	0.438	0.858	850			0.079	0.056	2.4	2.4	<0.0030
RSEM-L5E-P2-EOP	7/14/2021 12:30	ABX613	D	C150851	8.44	2280	1560	<1.0	302	317	203	3.8	239	4.5	<1.0	57	0.415	0.764	860			0.106	0.057	2.4	2.4	<0.0030
RSEM-L5E-P2-EOP	7/15/2021 12:25	ABY389	M	C150960	8.41	2350	1690	<1.0	296	306	201	3.1	237	3.7	<1.0	58	0.425	0.771	930			0.169	0.055	2.5	2.5	<0.0030
RSEM-L5E-P2-EOP	7/16/2021 10:35	ABZ188	M	C151029	8.42	2390	1720	4.0	293	302	218	3.4	258	4.1	<1.0	59	0.467	0.792	950			0.095	0.057	2.6	2.6	<0.0030
RSEM-L5E-P2-EOP	7/17/2021 12:20	ACC244	M	C151542	8.42	2470	1530	2.5	328	300	226	3.1	267	3.8	<1.0	61	0.403	0.909	970			0.110	0.054	2.6	2.7	0.0315
RSEM-L5E-P2-EOP	7/18/2021 15:50	ACC420	M	C151549	8.49	2530	1610	4.5	321	297	254	4.5	299	5.4	<1.0	61	0.462	0.963	1000			0.096	0.050	2.7	2.8	<0.0030
RSEM-L5E-P2-EOP	7/19/2021 11:55	ACF040	M	C151946	8.43	2530	1780	5.9	291	294	250	4.1	295	5.0	<1.0	64	0.403	0.951	910			0.083	0.046	2.6	2.7	<0.0030
RSEM-L5E-P2-EOP	7/20/2021 10:45	ACH819	M	C152456	8.37	2520	1700	1.0	324	297	239	2.4	285	2.9	<1.0	62	0.427	0.964	920			0.094	0.047	2.7	2.7	<0.0030
RSEM-L5E-P2-EOP	7/21/2021 11:20	ACH930	M	C152481	8.40	2500	1690	3.5	314	308	238	3.0	283	3.6	<1.0	69.0	0.418	0.965	1080			0.074	0.044	2.6	2.7	<0.0030
RSEM-L5E-P2-EOP	7/22/2021 12:35	ACL550	M	C152988	8.34	2400	1680	16.8	365	345	201	1.6	242	1.9	<1.0	61.7	0.412	0.941	936			0.079	0.042	3.6	3.7	<0.0030
RSEM-L5E-P2-EOP	7/23/2021 12:30	ACL703	M	C153012	8.25	2370	1480	13.7	349	351	186	<1.0	227	<1.0	<1.0	60.8	0.402	0.902	998			0.104	0.042	3.6	3.7	<0.0030
RSEM-L5E-P2-EOP	8/23/2021 13:00	AEL593	M	C161925	7.97	2230	1610	3.2	443	394	132	<1.0	161	<1.0	<1.0	53.8	0.370	0.779	937			0.088	0.027	2.9	2.9	<0.0030
RSEM-L5E-P2-EOP	8/24/2021 13:25	AEN132	M	C162291	7.67	2180	1590	1.9	441	433	112	<1.0	136	<1.0	<1.0	44.4	0.358	0.735	950			0.063	0.027	3.0	3.0	<0.0030
RSEM-L5E-P2-EOP	8/24/2021 13:35	AEN133	D	C162291	7.65	2200	1560	2.7	449	435	112	<1.0	136	<1.0	<1.0	42.3	0.362	0.738	940			0.078	0.028	2.8	2.9	<0.0030
RSEM-L5E-P2-EOP	8/25/2021 11:00	AEP243	M	C162703	7.82	2210	1540	5.0	437	403	111	<1.0	135	<1.0	<1.0	44.3	0.360	0.678	927			0.036	0.028	2.8	2.9	<0.0030
RSEM-L5E-P2-EOP	8/26/2021 15:45	AER559	M	C163145	7.83	2170	1530	1.6	469	428	111	<1.0	135	<1.0	<1.0	42.8	0.349	0.740	945			0.086	0.028	3.0	3.0	<0.0030
RSEM-L5E-P2-EOP	9/5/2021 10:55	AFI822	M	C166081	7.92	2410	1720	<1.0	466	447	139	<1.0	170	<1.0	<1.0	51.6	0.374	0.771	1050			0.022	0.025	3.2	3.2	<0.0030
RSEM-L5E-P2-EOP	9/6/2021 10:05	AFI721	M	C166063	7.97	2460	1760	<1.0	478	439	145	<1.0	177	<1.0	<1.0	53.2	0.380	0.805	1050			0.032	0.024	3.1	3.2	<0.0030
RSEM-L5E-P2-EOP	9/7/2021 15:30	AFL347	M	C166557	8.35	2440	1740	<1.0	501	443	134	1.3	161	1.5	<1.0	52.1	0.384	0.778	1060			0.042	0.024	3.0	3.1	<0.0030
RSEM-L5E-P2-EOP	9/8/2021 15:40	AFO059	M	C167059	8.03	2430	1740	<1.0	513	468	140	<1.0	170	<1.0	<1.0	55.1	0.397	0.757	1050			0.030	0.024	2.9	2.9	<0.0030
RSEM-L5E-P2-EOP	9/9/2021 16:20	AFQ847	M	C167445	8.34	2450	1540	<1.0	506	458	142	1.3	170	1.6	<1.0	54.4	0.316	0.770	1000			0.413	0.024	3.0	3.0	<0.0030
RSEM-L5E-P2-EOP	9/10/2021 12:20	AFQ883	M	C167449	8.27	2460	1550	<1.0	500	431	139	<1.0	169	<1.0	<1.0	52.4	0.312	0.775	1040			0.197	0.023	2.9	2.9	<0.0030
RSEM-L5E-P2-EOP	9/11/2021 16:00	AFV355	M	C168029	8.16	2400	1720	1.7	510	456	154	<1.0	188	<1.0	<1.0	51.7	0.368	0.740	977			0.088	0.025	2.9	2.9	<0.0030
RSEM-L5E-P2-EOP	9/12/2021 10:30	AFV419	M	C168037	8.25	2400	1720	<1.0	499	449	134	<1.0	164	<1.0	<1.0	53.5	0.387	0.793	1060			0.037	0.026	2.8	2.9	<0.0030
RSEM-L5E-P2-EOP	9/13/2021 6:20	AFV246	M	C168020	8.16	2350	1690	<1.0	508	448	133	<1.0	163	<1.0	<1.0	49.2	0.318	0.726	1050			0.026	0.025	2.8	2.9	<0.0030
RSEM-L5E-P2-EOP	9/14/2021 12:05	AGB019	M	C169017	8.29	2460	1670	1.2	497	499	162	<1.0	197	<1.0	<1.0	52.1	0.419	0.694	1060			0.059	0.028	2.6	2.7	<0.0030
RSEM-L5E-P2-EOP	9/15/2021 14:50	AGD167	M	C169361	8.36	2530	1760	<1.0	475	502	152	2.1	180	2.5	<1.0	55.8	0.367	0.785	1130			0.295	0.029	2.6	2.6	<0.0030
RSEM-L5E-P2-EOP	9/16/2021 15:30	AGG332	M	C169805	8.41	2630	1750	<1.0	486	460	163	3.2	191	3.8	<1.0	61.2	0.379	0.888	1130			0.024	0.030	2.6	2.6	<0.0030
RSEM-L5E-P2-EOP	9/17/2021 12:30	AGG310	M	C169799	8.39	2730	2040	4.5	477	474	171	3.1	201	3.8	<1.0	65.9	0.392	0.932	1180			0.039	0.031	2.6	2.7	0.0031
RSEM-L5E-P2-EOP	9/18/2021 16:30	AGJ637	M	C170329	8.35	2900	2080	<1.0	452	436	228	1.9	274	2.3	<1.0	71.0	0.448	1.01	1210			0.070	0.031	2.7	2.8	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-P2-EOP	9/19/2021 11:55	AGJ667	M	C170331	8.35	2970	2100	<1.0	468	428	199	1.8	238	2.2	<1.0	72.6	0.448	1.04	1220			0.021	0.030	2.8	2.8	<0.0030
RSEM-L5E-P2-EOP	9/20/2021 14:10	AGM223	M	C170680	8.36	2980	2120	1.5	471	432	220	1.6	265	1.9	<1.0	67.8	0.450	1.02	1220			0.022	0.031	2.5	2.6	<0.0030
RSEM-L5E-P2-EOP	9/22/2021 14:45	AGR067	M	C171568	8.40	3040	2180	3.0	474	424	222	2.3	265	2.8	<1.0	73.4	0.388	1.08	1250			0.064	0.026	2.6	2.6	<0.0030
RSEM-L5E-P2-EOP	9/23/2021 13:30	AGT567	M	C171954	8.40	3020	2180	1.3	449	433	192	3.5	226	4.3	<1.0	74.5	0.406	0.792	1340			0.023	0.021	2.4	2.5	<0.0030
RSEM-L5E-P2-EOP	9/24/2021 11:40	AGV852	M	C172263	8.41	3070	2240	4.0	436	443	201	3.5	236	4.2	<1.0	80.6	1.20	1.14	1330			<0.015	0.0198	2.36	2.38	<0.0030
RSEM-L5E-P2-EOP	9/24/2021 11:50	AGV853	D	C172263	8.42	3070	2220	4.8	423	442	203	3.8	238	4.5	<1.0	81.9	1.20	1.15	1270			<0.015	0.0204	2.37	2.39	<0.0030
RSEM-L5E-P2-EOP	9/25/2021 11:35	AGX498	M	C172580	8.10	3070	2220	10.7	405	416	234	<1.0	286	<1.0	<1.0	73.6	0.440	1.12	1320			0.021	0.019	2.2	2.2	<0.0030
RSEM-L5E-P2-SP	4/5/2021 16:15	ZO7521	M	C121801	7.71	646	430	6.1	255	270	113	<1.0	138	<1.0	<1.0	8.81	0.212	0.067	193			0.290	0.032	1.9	1.9	0.0057
RSEM-L5E-P2-SP	4/28/2021 15:50	ZS0317	M	C128230	8.27	728	480	<1.0	306	294	123	<1.0	150	<1.0	<1.0	13.0	0.214	0.112	250			0.089	0.023	1.8	1.8	<0.0030
RSEM-L5E-P2-SP	5/4/2021 14:30	ZS9944	M	C129944	8.23	809	580	3.3	301	292	88.5	<1.0	108	<1.0	<1.0	16.8	0.213	0.168	277			0.082	0.025	1.8	1.9	<0.0030
RSEM-L5E-P2-SP	5/6/2021 12:40	ZT3105	M	C130484	8.32	815	600	3.3	312	306	115	<1.0	141	<1.0	<1.0	17.5	0.212	0.156	264			0.204	0.025	1.8	1.8	<0.0030
RSEM-L5E-P2-SP	5/13/2021 14:25	ZU4939	M	C132324	8.25	815	620	1.7	304	327	114	<1.0	139	<1.0	<1.0	17.3	0.195	0.163	284			0.108	0.021	1.6	1.6	<0.0030
RSEM-L5E-P2-SP	5/20/2021 14:45	ZV5701	M	C134406	8.21	935	612	1.8	342	318	113	<1.0	138	<1.0	<1.0	21.7	0.215	0.214	344			0.077	0.021	1.8	1.8	<0.0030
RSEM-L5E-P2-SP	5/29/2021 12:50	ZW9129	M	C136816	8.21	948	636	2.7	323	337	116	<1.0	141	<1.0	<1.0	21.8	0.215	0.228	323			0.040	0.018	1.5	1.5	<0.0030
RSEM-L5E-P2-SP	6/5/2021 15:30	ZY0224	M	C138844	7.85	985	648	<1.0	339	331	129	<1.0	158	<1.0	<1.0	21.9	0.252	0.255	340			0.044	0.019	1.4	1.4	<0.0030
RSEM-L5E-P2-SP	6/10/2021 10:25	ZY8798	M	C140527	8.08	1190	708	<1.0	321	324	143	<1.0	175	<1.0	<1.0	28.5	0.233	0.352	429			0.102	0.020	1.6	1.6	<0.0030
RSEM-L5E-P2-SP	6/14/2021 9:45	ZZ2008	M	C141059	8.35	1350	1040	<1.0	338	323	127	1.2	152	1.5	<1.0	33.4	0.258	0.417	495			0.052	0.021	1.8	1.8	0.0055
RSEM-L5E-P2-SP	6/20/2021 12:00	AAF491	M	C143330	8.35	1420	984	1.9	352	338	129	<1.0	158	<1.0	<1.0	35.8	0.297	0.488	518			0.856	0.021	1.5	1.6	<0.0030
RSEM-L5E-P2-SP	6/22/2021 10:40	AAL814	M	C144319	8.38	1420	972	3.2	335	332	128	1.5	153	1.8	<1.0	36.0	0.263	0.535	550			0.032	0.023	1.7	1.7	<0.0030
RSEM-L5E-P2-SP	6/23/2021 11:40	AAO116	M	C144722	8.39	1460	976	3.2	338	378	126	1.8	150	2.1	<1.0	36.9	0.260	0.585	548			0.028	0.022	1.6	1.6	<0.0030
RSEM-L5E-P2-SP	6/24/2021 11:10	AAQ174	M	C144970	8.32	1440	944	5.1	332	293	144	<1.0	176	<1.0	<1.0	37.4	0.265	0.538	534			0.022	0.023	1.6	1.6	0.0036
RSEM-L5E-P2-SP	6/25/2021 11:20	AAP484	M	C144894	8.36	1440	1000	3.5	342	299	140	<1.0	171	<1.0	<1.0	36.4	0.275	0.491	525			0.031	0.023	1.4	1.4	0.0033
RSEM-L5E-P2-SP	6/26/2021 13:30	AAU429	M	C145599	8.40	1440	1000	5.2	334	382	169	1.9	202	2.2	<1.0	36.1	0.294	0.435	527			0.036	0.025	1.4	1.4	<0.0030
RSEM-L5E-P2-SP	6/27/2021 10:40	AAU316	M	C145583	8.40	1440	980	2.3	342	385	138	2.0	164	2.3	<1.0	36.3	0.293	0.439	533			0.592	0.025	1.4	1.4	<0.0030
RSEM-L5E-P2-SP	6/28/2021 10:45	AAX133	M	C146134	8.41	1460	996	4.7	348	372	150	2.1	178	2.5	<1.0	36.0	0.282	0.443	518			0.025	0.025	1.3	1.4	<0.0030
RSEM-L5E-P2-SP	6/29/2021 11:45	AAZ024	M	C146532	8.32	1460	1030	3.3	379	353	155	<1.0	189	<1.0	<1.0	36.3	0.299	0.523	567			0.517	0.025	1.3	1.3	<0.0030
RSEM-L5E-P2-SP	7/3/2021 13:55	ABE026	M	C147272	8.25	1840	1320	<1.0	348	344	162	<1.0	198	<1.0	<1.0	50.4	0.368	0.703	727			0.084	0.043	2.0	2.0	0.0031
RSEM-L5E-P2-SP	7/4/2021 10:00	ABD988	M	C147267	8.28	1890	1210	<1.0	369	384	176	<1.0	214	<1.0	<1.0	48.6	0.356	0.708	740			0.078	0.044	2.0	2.0	<0.0030
RSEM-L5E-P2-SP	7/5/2021 11:40	ABG202	M	C147674	8.33	1880	1330	1.7	359	349	162	1.4	194	1.7	<1.0	47.1	0.364	0.733	733			0.067	0.043	1.9	2.0	<0.0030
RSEM-L5E-P2-SP	7/6/2021 15:20	ABJ181	M	C148228	8.36	1920	1350	4.1	336	339	180	1.6	215	2.0	<1.0	47.2	0.368	0.748	745			0.054	0.042	2.1	2.1	<0.0030
RSEM-L5E-P2-SP	7/7/2021 15:30	ABK535	M	C148516	8.46	1990	1310	<1.0	341	339	192	3.6	225	4.3	<1.0	49.1	0.319	0.707	748			0.057	0.040	2.0	2.0	<0.0030
RSEM-L5E-P2-SP	7/8/2021 17:00	ABM765	M	C148925	8.32	1990	1320	2.4	376	339	181	<1.0	220	<1.0	<1.0	52.4	0.370	0.723	756			0.105	0.043	2.0	2.1	<0.0030
RSEM-L5E-P2-SP	7/24/2021 10:35	ACO402	M	C153513	8.33	2400	1460	6.6	369	339	236	1.7	283	2.0	<1.0	64.2	0.394	0.883	969			0.086	0.043	3.8	3.9	<0.0030
RSEM-L5E-P2-SP	7/25/2021 11:00	ACO185	M	C153467	8.28	2380	1500	4.8	350	349	204	<1.0	249	<1.0	<1.0	62.2	0.383	0.870	964			0.052	0.043	3.8	3.8	<0.0030
RSEM-L5E-P2-SP	7/26/2021 11:30	ACN522	M	C153324	8.35	2360	1740	5.0	352	374	222	1.8	267	2.1	<1.0	62.5	0.427	0.880	970			0.037				<0.0030
RSEM-L5E-P2-SP	7/27/2021 15:40	ACT048	M	C154246	8.41	2420	1670	7.2	399	361	205	3.4	242	4.1	<1.0	64.6	0.392	0.875	976			0.043	0.042	3.8	3.8	<0.0030
RSEM-L5E-P2-SP	7/28/2021 16:00	ACV592	M	C154699	8.45	2440	1710	1.7	398	370	214	4.0	252	4.8	<1.0	58.8	0.388	0.864	982			0.024	0.044	3.8	3.8	<0.0030
RSEM-L5E-P2-SP	7/30/2021 11:40	ACY656	M	C155288	8.40	2430	1650	6.6	395	383	199	2.8	236	3.3	<1.0	58	0.333	0.845	950			0.058	0.044	3.8	3.9	<0.0030
RSEM-L5E-P2-SP	8/1/2021 14:00	ADC694	M	C155924	8.33	2410	1600	2.1	393	357	173	3.6	203	4.3	<1.0	61.1	0.367	0.877	970			0.060	0.042	3.7	3.8	<0.0030
RSEM-L5E-P2-SP	8/5/2021 15:30	ADK138	M	C157133	8.35	2350	1700	3.6	411	459	201	2.5	239	3.0	<1.0	63.7	0.481	0.873	969			0.087	0.038	3.7	3.7	<0.0030
RSEM-L5E-P2-SP	8/6/2021 10:40	ADK125	M	C157131	8.03	2330	1630	8.1	395	379	170	<1.0	207	<1.0	<1.0	61.9	0.403	0.856	948			0.067	0.039	3.6	3.6	<0.0030
RSEM-L5E-P2-SP	8/7/2021 16:20	ADM460	M	C157545	8.27	2320	1600	6.3	393	366	155	<1.0	189	<1.0	<1.0	61.0	0.399	0.826	956			0.029	0.035	3.6	3.6	<0.0030
RSEM-L5E-P2-SP	8/8/2021 10:45	ADN230	M	C157651	8.34	2340	1540	4.1	392	372	165	3.3	193	4.0	<1.0	60.1	0.403	0.841	949			0.042	0.034	3.6	3.7	<0.0030
RSEM-L5E-P2-SP	8/9/2021 10:15	ADM370	M	C157523	8.29	2350	1690	2.8	402	362	166	2.2	197	2.7	<1.0	61.9	0.395	0.784	948			0.050	0.033	3.6	3.6	<0.0030
RSEM-L5E-P2-SP	8/10/2021 15:30	ADP902	M	C158211	8.41	2410	1740	3.1	383	376	177	3.1	208	3.8	<1.0	59.2	0.725	0.942	989			0.021	0.032	3.5	3.5	<0.0030
RSEM-L5E-P2-SP	8/12/2021 15:30	ADU541	M	C159104	7.92	324	200	<1.0	157	170	196	<1.0	239	<1.0	<1.0	2.51	0.073	0.023	30.5			<0.015	<0.010	0.040	0.040	0.0031
RSEM-L5E-P2-SP	8/14/2021 15:30	ADW203	M	C159435	8.28	2420	1580	3.3	389	390	159	<1.0	194	<1.0	<1.0	63.5	0.389	0.958	984			0.037	0.027	3.2	3.2	<0.0030
RSEM-L5E-P2-SP	8/16/2021 15:20	ADY265	M	C159861	8.25	2400	1510	2.7	415	379	144	<1.0	176	<1.0	<1.0	62.8	0.396	0.836	984			0.075	0.028	3.2	3.2	<0.0030
RSEM-L5E-P2-SP	8/18/2021 15:20	AED519	M	C160793	8.41	2370	1820	3.9	385	379	138	5.3	155	6.4	<1.0	62.4	0.394	0.931	987			0.064	0.028	2.9	3.0	<0.0030
RSEM-L5E-P2-SP	8/20/2021 12:20	AEF525	M	C161059	7.99	2360	1410	<1.0	385	366	127	<1.0	155	<1.0	<1.0	61.6	0.377	0.951	976			0.063	0.026	2.8	2.8	<0.0030
RSEM-L5E-P2-SP	8/21/2021 16:20	AEI351	M	C161420	7.51	2360	1420	1.5	341	375	130	<1.0	159	<1.0	<1.0	63.1	0.383	0.924	988			0.135	0.027	2.6	2.7	<0.0030
RSEM-L5E-P2-SP	8/22/2021 9:40	AEI413	M	C161433	7.58	2300	1530	4.2	375	377	101	<1.0	124	<1.0	<1.0	59.1	0.351	0.861	953			0.053	0.024	2.6	2.6	<0.0030
RSEM-L5E-P2-SP	8/27/2021 12:10	AER549	M	C163144	7.85	2150	1550	<1.0	506	426	110	<1.0	134	<1.0	<1.0	40.1	0.355	0.678	958			0.128	0.028	3.1	3.1	<0.0030
RSEM-L5E-P2-SP	8/28/2021 14:55	AEV125	M	C163811	7.97	2180	1450	1.5	479	451	145	<1.0	177	<1.0	<1.0	47.4	0.355	0.659	941			0.022	0.029	3.0	3.0	<0.0030
RSEM-L5E-P2-SP	8/29/2021 14:50	AEV013	M	C163786	7.57	2260	1620	<1.0	487	460	192	<1.0	235	<1.0	<1.0	48.1	0.358	0.717	978			0.054	0.028	3.0	3.0	<0.0030
RSEM-L5E-P2-SP	8/30/2021 14:20	AEX830	M	C164176	7.59	2340	1720	<1.0	459	441	180	<1.0	219	<1.0	<1.0	49.8	0.355	0.769	998			0.123	0.025	3.1	3.1	<0.0030
RSEM-L5E-P2-SP	8/31/2021 12:20	AFA834	M	C164798	8.25	2390	1700	<1.0	458	437	128	<1.0	156	<1.0	<1.0	50.9	0.432	0.803	994			0.027	0.024	3.1	3.1	<0.0030
RSEM-L5E-P2-SP	9/1/2021 11:40	AFC993	M	C165103	7.90	2380	1700	<1.0	460	442	141	<1.0	172	<1.0	<1.0	51.3	0.364	0.761	1010			0.024	0.024	3.1	3.2	<0.0030
RSEM-L5E-P2-SP	9/2/2021 16:10	AFF609	M	C165563	8.14	2400	1770	1.3	458	444	142	<1.0	174	<1.0	<1.0	57.5	0.387	0.788	1020			0.070	0.025	3.1	3.1	<0.0030
RSEM-L5E-P2-SP	9/3/2021 12:10	AFF867	M	C165588	8.02	2410	1850	<1.0	443	468	145	<1.0	177	<1.0	<1.0	56.7	0.358	0.806	1010			0.137	0.025	3.2	3.2	<0.0030
RSEM-L5E-P2-SP	9/4/2021 12:05	AFH291	M	C165785	7.81	2400	1770	2.0	499	457	144	<1.0	176	<1.0	<1.0	52.8	0.370	0.750	1000			0.035	0.0223	3.06	3.08	<0.0030
RSEM-L5E-P2-SP	9/21/2021 10:10	AGO666	M	C171134	8.38	2940	2020	1.7	492	429	190	2.9	224	3.5	<1.0	70.7	0.392	1.06	1240			0.020	0.028	2.7	2.7	<0.0030
RSEM-L5W-P2-EOP	8/25/2021 11:25	AEP244	M	C162703	8.41	3050	2090	<1.0	336	341	219	5.4	254	6.5	<1.0	74.3	0.420	1.09	1260			0.089	0.044	3.0	3.1	<0.0030
RSEM-L5W-P2-EOP	8/26/2021 15:20	AER558	M	C163145	8.42	3040	2110	<1.0	341	323	223	6.2	257	7.5	<1.0	72.6	0.414	1.17	1250			0.112	0.044	3.1	3.2	<0.0030
RSEM-L5W-P2-EOP	8/27/2021 12:25	AER550	M	C163144	8.16	3050	2160	1.1	344	323	222	<1.0	271	<1.0	<1.0	69.2	0.422	1.13	1270			0.040	0.046	3.2	3.2	0.0032
RSEM-L5W-P2-EOP	8/28/2021 15:10	AEV126	M	C163811	7.91	3120	2130	1.6	346	333	259	<1.0	315	<1.0	<1.0	82.0	0.421	1.16	1280			0.035	0.047	3.1	3.1	<0.0030
RSEM-L5W-P2-EOP	8/29/2021 15:05	AEV014	M	C163786	7.85	3120	2260	<1.0	348	325	286	<1.0	349	<1.0	<1.0	79.6	0.417	1.15	1270			0.026	0.048	3.1	3.1	<0.0030
RSEM-L5W-P2-EOP	8/30/2021 14:40	AEX831	M	C164176	8.21	3190	2360	<1.0	358	327	276	<1.0	337	<1.0	<1.0	77.9	0.425	1.12	1250			0.167	0.048	3.2	3.3	<0.0030
RSEM-L5W-P2-EOP	8/31/2021 12:35	AFA835	M	C164798	8.28	3170	2240	<1.0	360	338	221	<1.0	269	<1.0	<1.0	77.3	0.397	1.14	1280			0.030	0.048	3.2	3.3	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5W-P2-EOP	9/1/2021 11:50	AFC994	M	C165103	8.38	3120	2200	1.9	358	339	221	2.4	264	2.9	<1.0	75.9	0.401	1.17	1270			0.055	0.048	3.3	3.3	<0.0030
RSEM-L5W-P2-EOP	9/2/2021 16:20	AFF610	M	C165563	8.41	3140	2230	<1.0	361	336	220	5.6	254	6.7	<1.0	83.4	0.429	1.15	1280			0.034	0.047	3.3	3.3	<0.0030
RSEM-L5W-P2-EOP	9/3/2021 12:25	AFF868	M	C165588	8.39	3130	2320	<1.0	350	346	219	5.8	254	6.9	<1.0	83.0	0.433	1.15	1400			0.075	0.048	3.3	3.3	<0.0030
RSEM-L5W-P2-EOP	9/4/2021 12:25	AFH292	M	C165785	8.15	3120	2250	<1.0	364	353	218	<1.0	266	<1.0	<1.0	76.2	0.430	1.09	1300			0.048	0.0456	3.23	3.27	<0.0030
RSEM-L5W-P2-EOP	9/5/2021 11:15	AFI823	M	C166081	8.28	3140	2230	<1.0	351	344	220	<1.0	269	<1.0	<1.0	77.1	0.414	1.18	1280			0.049	0.048	3.3	3.4	<0.0030
RSEM-L5W-P2-EOP	9/6/2021 10:20	AFI722	M	C166063	8.29	3150	2220	1.6	379	355	219	<1.0	267	<1.0	<1.0	77.3	0.431	1.19	1300			0.049	0.047	3.4	3.5	<0.0030
RSEM-L5W-P2-SP	4/28/2021 16:00	ZS0318	M	C128230	8.32	1630	1110	4.3	314	316	126	<1.0	153	<1.0	<1.0	47.7	0.298	0.717	629			0.282	0.14	4.4	4.5	<0.0030
RSEM-L5W-P2-SP	5/20/2021 14:55	ZV5702	M	C134406	8.42	2530	1790	2.5	267	278	190	2.4	226	2.9	<1.0	82.1	0.356	1.10	986			0.407	0.095	4.5	4.6	<0.0030
RSEM-L5W-P2-SP	5/29/2021 13:00	ZW9130	M	C136816	8.40	2410	1610	10.7	286	302	223	2.9	265	3.5	<1.0	68.7	0.355	1.04	914			0.291	0.077	4.3	4.4	<0.0030
RSEM-L5W-P2-SP	6/5/2021 15:40	ZY0225	M	C138844	8.43	2800	1930	3.8	278	276	260	4.1	307	4.9	<1.0	83.5	0.462	1.17	1030			0.443	0.10	4.6	4.7	<0.0030
RSEM-L5W-P2-SP	6/10/2021 10:40	ZY8801	M	C140527	8.50	2870	1740	1.9	259	252	274	6.0	319	7.2	<1.0	80.0	0.421	1.19	1090			0.479	0.10	4.8	4.9	<0.0030
RSEM-L5W-P2-SP	6/14/2021 10:00	ZZ2011	M	C141059	8.45	2920	2160	1.1	273	258	245	4.4	288	5.2	<1.0	82.6	0.442	1.15	1110			0.408	0.096	4.9	4.9	<0.0030
RSEM-L5W-P2-SP	6/20/2021 12:20	AAF492	M	C143330	8.47	2870	2100	1.8	282	279	239	5.3	279	6.4	<1.0	85.0	0.525	1.25	1100			0.245	0.091	4.8	4.9	<0.0030
RSEM-L5W-P2-SP	6/23/2021 11:55	AAO117	M	C144722	8.51	2820	1880	6.1	264	297	242	5.6	282	6.8	<1.0	73.8	0.442	0.994	1090			0.184	0.087	4.7	4.7	<0.0030
RSEM-L5W-P2-SP	6/25/2021 11:35	AAP485	M	C144894	8.44	2790	1950	11.1	264	293	242	4.2	285	5.1	<1.0	80.0	0.462	1.05	1050			0.165	0.087	4.6	4.7	0.0033
RSEM-L5W-P2-SP	6/26/2021 13:40	AAU430	M	C145599	8.47	2680	1860	7.4	267	291	243	4.7	285	5.7	<1.0	76.9	0.473	0.963	996			0.145	0.081	4.4	4.5	<0.0030
RSEM-L5W-P2-SP	6/28/2021 10:55	AAX134	M	C146134	8.43	2670	1830	6.3	260	312	230	4.3	270	5.2	<1.0	74.6	0.442	1.01	979			0.112	0.075	4.2	4.3	<0.0030
RSEM-L5W-P2-SP	6/29/2021 11:55	AAZ025	M	C146532	8.36	2710	1960	2.6	270	261	231	2.6	275	3.2	<1.0	77.3	0.486	1.16	1060			0.115	0.079	4.3	4.4	<0.0030
RSEM-L5W-P2-SP	6/30/2021 0:50	AAZ006	M	C146528	8.23	2070	1490	2.5	331	313	186	<1.0	227	<1.0	<1.0	57.7	0.386	0.841	805			0.082	0.039	2.7	2.8	<0.0030
RSEM-L5W-P2-SP	7/1/2021 12:30	ABB248	M	C146903	8.33	2190	1560	3.3	313	305	211	1.2	255	1.4	<1.0	62.4	0.474	0.846	870			0.121	0.045	2.9	3.0	<0.0030
RSEM-L5W-P2-SP	7/3/2021 14:05	ABE027	M	C147272	8.27	2470	1760	1.6	298	305	226	<1.0	276	<1.0	<1.0	70.8	0.459	1.05	995			0.154	0.079	3.5	3.6	<0.0030
RSEM-L5W-P2-SP	7/4/2021 10:15	ABD989	M	C147267	8.30	2600	1750	1.5	311	300	238	<1.0	290	<1.0	<1.0	74.1	0.459	1.13	996			0.195	0.12	3.6	3.7	0.0037
RSEM-L5W-P2-SP	7/5/2021 11:55	ABG203	M	C147674	8.35	2740	1900	<1.0	288	281	268	1.7	323	2.0	<1.0	77.9	0.500	1.38	1040			0.278	0.14	3.8	4.0	<0.0030
RSEM-L5W-P2-SP	7/6/2021 15:00	ABJ182	M	C148228	8.41	2730	1940	1.5	262	275	244	3.8	288	4.6	<1.0	75.1	0.522	1.21	1050			0.303	0.13	3.9	4.0	<0.0030
RSEM-L5W-P2-SP	7/7/2021 16:00	ABK536	M	C148516	8.48	2810	1840	2.9	268	278	247	5.8	288	7.0	<1.0	76.5	0.418	1.20	1030			0.170	0.11	3.8	3.9	<0.0030
RSEM-L5W-P2-SP	7/8/2021 17:20	ABM766	M	C148925	8.40	2640	1680	4.2	290	290	231	2.8	275	3.3	<1.0	71.5	0.433	1.05	976			0.148	0.086	3.5	3.5	<0.0030
RSEM-L5W-P2-SP	7/9/2021 12:00	ABM749	M	C148923	8.29	2370	1500	1.6	361	311	200	<1.0	244	<1.0	<1.0	62.5	0.433	0.922	905			0.103	0.054	2.9	3.0	<0.0030
RSEM-L5W-P2-SP	7/10/2021 14:30	ABP530	M	C149429	8.38	2690	1740	1.9	293	278	224	3.7	264	4.5	<1.0	73.7	0.382	1.11	873			0.135	0.091	3.4	3.5	0.0032
RSEM-L5W-P2-SP	7/11/2021 12:30	ABP676	M	C149459	8.35	2510	1630	2.1	302	300	209	2.6	249	3.2	<1.0	65.8	0.373	1.02	741			0.099	0.060	3.0	3.1	<0.0030
RSEM-L5W-P2-SP	7/13/2021 11:10	ABU093	M	C150243	8.43	2680	1860	3.6	300	307	268	3.3	320	3.9	<1.0	69	0.483	1.06	1000			0.111	0.068	3.3	3.4	0.0054
RSEM-L5W-P2-SP	7/15/2021 12:40	ABY390	M	C150960	8.43	2680	1820	1.5	292	289	248	3.8	294	4.6	<1.0	68	0.438	0.907	1300			0.084	0.052	3.1	3.2	0.0325
RSEM-L5W-P2-SP	7/17/2021 12:35	ACC245	M	C151542	8.40	2550	1560	3.1	329	303	261	3.5	310	4.2	<1.0	61	0.449	0.944	990			0.028	0.016	2.8	2.8	0.0035
RSEM-L5W-P2-SP	7/19/2021 12:05	ACF041	M	C151946	8.38	2680	1760	11.6	294	293	236	3.1	281	3.8	<1.0	68	0.413	1.02	940			0.052	0.029	3.0	3.1	<0.0030
RSEM-L5W-P2-SP	7/21/2021 11:30	ACH931	M	C152481	8.36	2640	1800	4.5	312	312	241	2.0	289	2.4	<1.0	69.0	0.410	1.03	1080			0.071	0.028	2.9	2.9	<0.0030
RSEM-L5W-P2-SP	7/23/2021 12:40	ACL704	M	C153012	8.22	2490	1720	3.2	345	329	199	<1.0	243	<1.0	<1.0	66.7	0.394	1.01	927			0.024	0.016	3.3	3.3	<0.0030
RSEM-L5W-P2-SP	7/24/2021 10:45	ACO403	M	C153513	8.36	2620	1840	3.9	364	314	251	2.1	301	2.6	<1.0	72.0	0.394	1.01	1030			0.042	0.029	3.2	3.2	<0.0030
RSEM-L5W-P2-SP	7/25/2021 11:10	ACO186	M	C153467	8.35	2580	1810	2.3	329	335	247	1.7	297	2.1	<1.0	69.9	0.394	0.968	1010			0.037	0.024	3.4	3.4	<0.0030
RSEM-L5W-P2-SP	7/26/2021 11:45	ACN523	M	C153324	8.34	2600	1850	2.3	404	313	245	1.4	296	1.7	<1.0	71.3	0.481	1.00	1030			0.059				<0.0030
RSEM-L5W-P2-SP	7/27/2021 16:00	ACT049	M	C154246	8.36	2660	1920	5.3	414	326	231	2.4	276	2.9	<1.0	74.0	0.373	1.00	1050			0.064	0.030	3.5	3.6	<0.0030
RSEM-L5W-P2-SP	7/28/2021 16:20	ACV593	M	C154699	8.47	2730	1890	3.7	357	326	241	5.1	281	6.2	<1.0	69.7	0.338	1.02	1050			0.066	0.034	3.4	3.4	<0.0030
RSEM-L5W-P2-SP	7/30/2021 12:00	ACY657	M	C155288	8.44	2760	1900	2.1	338	347	237	4.6	278	5.5	<1.0	69	0.336	1.02	1100			0.039	0.039	3.4	3.4	<0.0030
RSEM-L5W-P2-SP	8/1/2021 14:30	ADC695	M	C155924	8.43	2770	1900	<1.0	353	327	217	6.1	249	7.4	<1.0	74.1	0.377	1.05	1110			0.042	0.042	3.3	3.3	<0.0030
RSEM-L5W-P2-SP	8/5/2021 15:50	ADK139	M	C157133	8.41	2850	2010	<1.0	348	324	258	3.4	306	4.1	<1.0	79.8	0.453	1.09	1120			0.089	0.045	3.3	3.3	<0.0030
RSEM-L5W-P2-SP	8/6/2021 10:50	ADK126	M	C157131	8.40	2830	1980	3.7	349	330	252	3.4	300	4.0	<1.0	78.8	0.453	1.08	1100			0.116	0.048	3.4	3.4	<0.0030
RSEM-L5W-P2-SP	8/7/2021 16:40	ADM461	M	C157545	8.45	2870	1990	2.9	343	319	220	7.0	251	8.4	<1.0	78.7	0.423	1.07	1140			0.058	0.046	3.4	3.4	<0.0030
RSEM-L5W-P2-SP	8/8/2021 10:55	ADN231	M	C157651	8.44	2860	1940	1.8	328	329	217	4.6	253	5.5	<1.0	80.2	0.423	1.07	1120			0.051	0.046	3.4	3.4	<0.0030
RSEM-L5W-P2-SP	8/9/2021 10:30	ADM371	M	C157523	8.44	2870	2020	1.6	336	333	218	7.1	249	8.5	<1.0	81.3	0.425	1.07	1200			0.056	0.047	3.4	3.4	<0.0030
RSEM-L5W-P2-SP	8/10/2021 15:50	ADP903	M	C158211	8.48	2980	2180	2.0	332	334	239	5.4	278	6.5	<1.0	81.0	0.778	1.15	1180			0.044	0.047	3.3	3.4	0.0035
RSEM-L5W-P2-SP	8/12/2021 15:50	ADU542	M	C159104	8.47	2970	2110	2.1	324	358	275	4.8	324	5.8	<1.0	81.2	0.429	1.24	1200			0.096	0.046	3.3	3.4	<0.0030
RSEM-L5W-P2-SP	8/14/2021 15:50	ADW204	M	C159435	8.43	3060	2100	2.3	359	349	223	5.7	258	6.8	<1.0	83.8	0.430	1.25	1250			0.046	0.045	3.3	3.3	<0.0030
RSEM-L5W-P2-SP	8/16/2021 15:50	ADY266	M	C159861	8.35	3080	2080	1.7	360	333	225	5.9	260	7.1	<1.0	85.1	0.430	1.11	1240			0.103	0.047	3.3	3.4	<0.0030
RSEM-L5W-P2-SP	8/18/2021 15:40	AED520	M	C160793	8.44	3100	2350	2.3	351	328	226	7.1	258	8.6	<1.0	84.6	0.453	1.25	1240			0.058	0.048	3.2	3.3	<0.0030
RSEM-L5W-P2-SP	8/20/2021 12:40	AEF526	M	C161059	8.35	3130	1950	<1.0	341	348	228	3.8	269	4.6	<1.0	85.6	0.434	1.28	1250			0.155	0.047	3.2	3.2	<0.0030
RSEM-L5W-P2-SP	8/21/2021 16:40	AEI352	M	C161420	8.49	3160	2020	<1.0	325	338	220	7.8	249	9.4	<1.0	86.1	0.438	1.28	1250			0.180	0.047	3.2	3.2	<0.0030
RSEM-L5W-P2-SP	8/22/2021 10:00	AEI414	M	C161433	8.44	3040	2060	2.3	393	338	212	6.9	242	8.3	<1.0	81.0	0.414	1.19	1210			0.060	0.042	3.1	3.1	<0.0030
RSEM-L5W-P2-SP	8/23/2021 13:30	AEL594	M	C161925	8.37	2940	1900	1.0	353	362	233	2.5	278	3.0	<1.0	80.0	0.393	1.16	1140			0.089	0.039	3.1	3.1	<0.0030
RSEM-L5W-P2-SP	8/24/2021 13:45	AEN134	M	C162291	8.31	2990	2160	3.8	357	335	215	2.6	256	3.1	<1.0	73.0	0.418	1.09	1220			0.136	0.042	3.1	3.1	<0.0030
RSEM-L5W-P2-SP	9/7/2021 16:00	AFL348	M	C166557	8.44	3130	2290	1.5	381	347	205	4.0	240	4.8	<1.0	76.7	0.425	1.07	1310			0.038	0.045	3.3	3.3	<0.0030
RSEM-L5W-P2-SP	9/8/2021 16:00	AFO060	M	C167059	8.31	3160	2250	<1.0	403	377	216	2.3	258	2.7	<1.0	80.5	0.443	1.00	1330			0.029	0.047	3.2	3.2	<0.0030
RSEM-L5W-P2-SP	9/9/2021 15:50	AFQ848	M	C167445	8.45	3210	2080	1.2	385	355	214	4.7	249	5.6	<1.0	79.5	0.348	1.10	1300			0.046	0.046	3.2	3.3	<0.0030
RSEM-L5W-P2-SP	9/10/2021 12:00	AFQ884	M	C167449	8.44	3200	2060	<1.0	407	347	214	3.8	252	4.6	<1.0	78.6	0.349	1.11	1320			0.042	0.046	3.2	3.2	<0.0030
RSEM-L5W-P2-SP	9/11/2021 15:30	AFV356	M	C168029	8.42	3160	2230	<1.0	403	353	214	3.1	254	3.7	<1.0	79.3	0.444	1.17	1270			0.035	0.045	3.2	3.3	<0.0030
RSEM-L5W-P2-SP	9/15/2021 15:10	AGD168	M	C169361	8.36	3090	2170	3.7	424	424	210	2.5	251	3.0	<1.0	79.8	0.392	1.05	1360			0.070	0.035	3.0	3.0	<0.0030
RSEM-L6-EOP	4/30/2021 7:00	ZS2246	M	C128573	7.95	767	492	78.5	248	226	63.2	<1.0	77.1	<1.0	<1.0	41.6	0.333	0.392	248			0.079	0.014	0.33	0.35	<0.0030
RSEM-L6-SP	4/14/2021 13:00	ZP9472	M	C124397	7.41	623	404	3.3	193	177	72.8	<1.0	88.8	<1.0	<1.0	40.7	0.252	0.359	165			0.410	0.029	0.49	0.52	<0.0030
RSEM-L6-SP	4/29/2021 16:00	ZS2245	M	C128573	7.95	629	384	31.7	254	236	144	<1.0	176	<1.0	<1.0	26.4	0.264	0.225	146			0.308	<0.010	0.38	0.38	0.0035
RSEM-L6-SP	8/25/2021 17:10	AEP248	M	C162703	6.79	1120	740	2.2	403	421	47.0	<1.0	57.4	<1.0	<1.0	74.0	0.287	0.931	392			0.041	0.011	0.36	0.37	<0.0030
RSEM-L6-SP	8/26/2021 17:00	AER560	M	C163145	6.82	1130	732	<1.0	417	422	47.1	<1.0	57.5	<1.0	<1.0	74.3	0.295	0.969	398			0.049	0.011	0.29	0.30	0.0055
RSEM-L6-SP	8/27/2021 9:45	AER551	M	C163144	6.70	1140	772	<1.0	407	407	46.2	<1.0	56.4	<1.0	<1.0	73.0	0.295	0.969	391			0.054	<0.010	0.086	0.086	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	10/27/2021 15:50	AJH727	M	C182990	6.99	1210	816	1.1	436	470	46.5	<1.0	56.7	<1.0	<1.0	84.3	0.297	1.06	464			<0.015	<0.010	0.098	0.098	0.0033
RSEM-L6-SP	11/9/2021 12:30	AKJ864	M	C187047	7.85	1270	900	2.9	498	455	54.5	<1.0	66.5	<1.0	<1.0	81.8	0.320	1.16	485			0.022	<0.010	0.012	0.012	<0.0030
RSEM-R5A-P2-A-SP	5/5/2021 14:40	ZT3124	M	C130491	8.22	632	432	5.2	190	191	85.4	<1.0	104	<1.0	<1.0	15.5	0.316	0.239	204			0.056	0.021	0.95	0.97	<0.0030
RSEM-R5A-P2-B-SP	5/5/2021 15:00	ZT3125	M	C130491	8.24	611	316	5.9	156	152	85.0	<1.0	104	<1.0	<1.0	11.3	0.310	0.216	192			0.228	0.074	0.83	0.90	<0.0030
RSEM-R5A-P2-C-SP	5/14/2021 11:50	ZU4953	M	C132327	8.22	677	452	8.4	159	158	96.2	<1.0	117	<1.0	<1.0	11.0	0.353	0.253	190			0.212	0.068	0.81	0.87	<0.0030
RSEM-R5A-P2-C-SP	5/19/2021 15:15	ZV3577	M	C134016	8.31	668	428	18.9	164	162	96.3	<1.0	118	<1.0	<1.0	11.1	0.393	0.244	199			0.022	0.054	0.90	0.95	0.0031
RSEM-R5A-P2-D-SP	5/14/2021 12:05	ZU4954	M	C132327	8.25	645	400	6.3	159	167	91.8	<1.0	112	<1.0	<1.0	11.3	0.327	0.243	187			0.059	0.057	0.82	0.87	<0.0030
RSEM-R5A-P2-D-SP	5/19/2021 15:25	ZV3578	M	C134016	8.36	629	412	10.3	163	152	94.1	<1.0	115	<1.0	<1.0	10.7	0.378	0.247	193			0.031	0.040	0.76	0.80	0.0039
RSEM-R5A-P2-D-SP	8/26/2021 13:30	AER556	M	C163145	7.05	1560	1120	6.8	418	402	70.0	<1.0	85.4	<1.0	<1.0	17.4	0.387	0.398	690			0.127	0.059	5.7	5.8	<0.0030
RSEM-R5B-P2-Sump	5/2/2021 15:05	ZS6050	M	C129102	8.25	811	468	9.3	316	321	214	<1.0	261	<1.0	<1.0	21.1	0.238	0.177	190			0.097	0.011	0.53	0.54	<0.0030
RSEM-R5B-P2-Sump	5/12/2021 12:30	ZU2126	M	C131927	8.36	792	448	7.4	301	345	206	2.1	246	2.5	<1.0	21.5	0.179	0.187	194			0.028	<0.010	0.38	0.38	<0.0030
RSEM-R5B-P2-Sump	5/18/2021 12:30	ZV2800	M	C133850	8.41	789	496	4.4	311	302	208	2.5	248	3.0	<1.0	21.2	0.206	0.190	197			0.031	<0.010	0.20	0.20	<0.0030
RSEM-R5B-P2-Sump	6/2/2021 14:30	ZX5272	M	C138096	8.33	858	544	9.0	308	301	213	1.1	257	1.3	<1.0	25.6	0.196	0.202	205			0.028	<0.010	0.061	0.061	0.0041
RSEM-R5B-P2-Sump	6/10/2021 13:30	ZY8802	M	C140527	8.43	902	552	9.5	328	313	229	4.1	270	4.9	<1.0	28.0	0.173	0.221	228			0.078	<0.010	0.013	0.013	0.0032
RSEM-R5B-P2-Sump	6/23/2021 13:15	AAO118	M	C144722	8.44	912	552	8.4	333	296	193	3.4	227	4.1	<1.0	29.5	0.201	0.245	246			0.083	<0.010	<0.050	<0.050	<0.0030
RSEM-R5B-P2-Sump	7/11/2021 13:30	ABP677	M	C149459	8.41	976	560	10.1	360	350	231	3.7	273	4.4	<1.0	37.2	0.240	0.254	244			0.033	<0.010	<0.010	<0.010	0.0037
RSEM-R5B-P2-Sump	7/15/2021 13:50	ABY391	M	C150960	8.38	967	604	2.3	332	333	203	<1.0	248	<1.0	<1.0	33	0.248	0.248	270			0.052	<0.010	<0.010	<0.010	<0.0030
RSEM-R5B-P2-Sump	7/22/2021 13:25	ACL551	M	C152988	8.34	1050	672	21.7	365	360	241	2.0	290	2.4	<1.0	32.0	0.241	0.283	287			0.051	0.010	0.11	0.12	0.0031
RSEM-R5B-P2-Sump	7/28/2021 15:00	ACV591	M	C154699	8.41	1030	688	5.0	369	349	223	3.1	264	3.8	<1.0	32.5	0.214	0.274	290			0.043	<0.010	<0.010	<0.010	<0.0030
RSEM-R5B-P2-Sump	8/12/2021 14:30	ADU543	M	C159104	8.25	1090	696	4.3	391	412	199	<1.0	242	<1.0	<1.0	71.9	0.226	0.797	312			0.144	<0.010	<0.050	<0.050	<0.0030
RSEM-R5B-P2-Sump	8/18/2021 14:30	AED524	M	C160793	8.25	1060	700	1.5	421	397	169	<1.0	206	<1.0	<1.0	65.5	0.226	0.692	288			0.041	<0.010	<0.050	<0.050	<0.0030
RSEM-R5B-P2-Sump	8/25/2021 12:50	AEP245	M	C162703	8.03	1280	784	4.1	459	453	149	<1.0	182	<1.0	<1.0	84.3	0.410	1.18	392			0.139	<0.010	0.18	0.18	<0.0030
RSEM-R5B-P2-Sump	9/1/2021 12:55	AFC996	M	C165103	8.29	1220	796	7.89	449	425	150	<1.0	183	<1.0	<1.0	76.4	0.369	0.969	365			0.079	<0.010	0.060	0.060	<0.0030
RSEM-R5B-P2-Sump	9/8/2021 14:00	AFO064	M	C167059	8.10	1150	744	2.7	458	423	160	<1.0	195	<1.0	<1.0	67.8	0.360	0.927	332			0.019	<0.010	<0.10	<0.10	<0.0030
RSEM-R5B-P2-Sump	9/14/2021 14:05	AGB020	M	C169017	8.17	1120	692	7.9	427	422	177	<1.0	216	<1.0	<1.0	64.3	0.329	0.781	340			0.019	<0.010	<0.050	<0.050	<0.0030
RSEM-R5B-P2-Sump	9/23/2021 14:35	AGT569	M	C171954	8.32	1050	656	8.5	400	408	213	<1.0	260	<1.0	<1.0	51.2	0.342	0.608	288			<0.015	<0.010	<0.050	<0.050	<0.0030
RSEM-R5B-P2-Sump	10/7/2021 12:40	AHU814	M	C176559	8.32	944	572	13.8	358	359	203	<1.0	248	<1.0	<1.0	41.6	0.198	0.424	207			0.017	<0.010	<0.010	<0.010	0.0032
RSEM-R5B-P2-Sump	10/14/2021 12:35	AIG811	M	C178651	8.23	892	544	1.7	352	359	235	<1.0	286	<1.0	<1.0	33.6	0.207	0.326	212			<0.015	<0.010	<0.010	<0.010	<0.0030
RSEM-R5B-P2-Sump	10/20/2021 16:20	AIT539	M	C180689	8.25	852	524	5.8	372	351	239	<1.0	291	<1.0	<1.0	34.7	0.179	0.334	184			<0.015	<0.010	0.082	0.082	0.0030
RSEM-R5B-P2-Sump	10/27/2021 11:10	AJH726	M	C182990	8.18	828	524	4.5	344	350	213	<1.0	260	<1.0	<1.0	33.1	0.151	0.365	183			<0.015	<0.010	0.069	0.069	<0.0030
RSEM-R5B-P2-Sump	11/2/2021 11:35	AJU791	M	C184881	8.10	926	568	61.1	434	423	311	<1.0	380	<1.0	<1.0	30.0	0.168	0.370	157			<0.015	<0.010	0.77	0.77	<0.0030
RSEM-R5B-P2-Sump	11/14/2021 14:00	AKS794	M	C188243	8.04	1010	640	90.1	480	417	290	<1.0	353	<1.0	<1.0	30.7	0.183	0.371	224			0.037	<0.010	0.44	0.44	0.0046
RSEM-R5B-P2-Sump	11/16/2021 11:20	AKV422	M	C188704	8.05	968	624	54.1	443	423	290	<1.0	354	<1.0	<1.0	27.7	0.179	0.301	217			0.043	<0.010	0.42	0.42	0.0035
RSEM-R6E-EOP	1/1/2021 15:00	ZC6627	M	C100093	8.19	849	484	1.2	322	352	264	<1.0	323	<1.0	<1.0	34.1	0.280	0.472	140			0.165	0.0100	0.631	0.641	<0.0030
RSEM-R6E-EOP	1/2/2021 16:05	ZC7219	M	C100230	7.76	824	512	<1.0	324	339	342	<1.0	417	<1.0	<1.0	34.6	0.231	0.475	133			0.187	0.012	0.619	0.630	0.0050
RSEM-R6E-EOP	1/3/2021 8:45	ZC7222	M	C100232	7.85	831	504	<1.0	337	346	315	<1.0	384	<1.0	<1.0	36.1	0.230	0.483	143			0.199	0.011	0.605	0.616	0.0044
RSEM-R6E-EOP	1/4/2021 18:10	ZC8853	M	C100618	7.72	831	608	1.1	313	335	316	<1.0	385	<1.0	<1.0	35.4	0.222	0.469	141			0.059	<0.010	0.525	0.525	0.0038
RSEM-R6E-EOP	1/5/2021 11:35	ZC8847	M	C100616	7.64	836	556	<1.0	329	333	313	<1.0	381	<1.0	<1.0	34.8	0.224	0.476	140			0.258	<0.010	0.515	0.515	0.0043
RSEM-R6E-EOP	1/5/2021 11:45	ZC8848	D	C100616	7.69	835	552	<1.0	338	339	313	<1.0	381	<1.0	<1.0	35.7	0.225	0.472	139			0.236	<0.010	0.515	0.515	0.0039
RSEM-R6E-EOP	1/6/2021 13:30	ZD1294	M	C101203	7.97	857	528	1.5	329	332	329	<1.0	402	<1.0	<1.0	34.6	0.235	0.463	146			0.275	<0.010	0.375	0.375	0.0031
RSEM-R6E-EOP	1/7/2021 12:50	ZD2458	M	C101487	7.78	862	548	1.4	343	343	322	<1.0	393	<1.0	<1.0	33.0	0.238	0.453	147			0.225	0.012	0.469	0.482	0.0037
RSEM-R6E-EOP	1/7/2021 13:00	ZD2459	D	C101487	7.79	866	556	1.9	336	346	328	<1.0	400	<1.0	<1.0	33.5	0.237	0.458	148			0.211	0.012	0.461	0.473	0.0039
RSEM-R6E-EOP	1/8/2021 13:10	ZD2449	M	C101485	7.79	861	536	1.9	329	346	324	<1.0	395	<1.0	<1.0	32.0	0.230	0.438	146			0.198	0.016	0.464	0.479	0.0035
RSEM-R6E-EOP	1/9/2021 14:10	ZD4126	M	C101792	8.03	854	492	1.6	320	340	333	<1.0	406	<1.0	<1.0	28.4	0.242	0.426	141			0.232	0.010	0.490	0.500	<0.0030
RSEM-R6E-EOP	1/10/2021 12:40	ZD4122	M	C101791	8.13	843	524	1.3	315	339	334	<1.0	408	<1.0	<1.0	26.5	0.241	0.409	133			0.220	<0.010	0.485	0.485	0.0032
RSEM-R6E-EOP	1/10/2021 12:50	ZD4123	D	C101791	8.12	844	492	1.4	322	339	331	<1.0	404	<1.0	<1.0	25.7	0.238	0.408	132			0.217	<0.010	0.477	0.477	0.0031
RSEM-R6E-EOP	1/11/2021 14:10	ZD5674	M	C102082	8.09	830	476	2.3	316	322	335	<1.0	409	<1.0	<1.0	27.2	0.237	0.391	125			0.207	<0.010	0.440	0.440	0.0038
RSEM-R6E-EOP	1/12/2021 13:00	ZD8125	M	C102522	7.92	831	512	1.3	312	316	304	<1.0	371	<1.0	<1.0	26.4	0.241	0.377	121			0.188	<0.010	0.465	0.465	<0.0030
RSEM-R6E-EOP	1/12/2021 13:10	ZD8126	D	C102522	7.92	826	516	1.1	323	317	338	<1.0	412	<1.0	<1.0	25.7	0.238	0.380	122			0.190	<0.010	0.440	0.440	<0.0030
RSEM-R6E-EOP	1/13/2021 13:40	ZD9241	M	C102779	7.77	844	492	1.1	316	332	329	<1.0	401	<1.0	<1.0	24.8	0.223	0.354	119			0.178	<0.010	0.453	0.453	0.0046
RSEM-R6E-EOP	1/14/2021 10:10	ZD9430	M	C102840	7.90	833	440	1.9	324	326	330	<1.0	403	<1.0	<1.0	24.4	0.220	0.347	115			0.165	<0.010	0.449	0.449	0.0044
RSEM-R6E-EOP	1/14/2021 10:20	ZD9432	D	C102840	7.84	837	480	1.0	316	324	332	<1.0	405	<1.0	<1.0	23.9	0.220	0.356	115			0.166	<0.010	0.449	0.449	0.0044
RSEM-R6E-EOP	1/15/2021 13:05	ZE0828	M	C103125	8.12	828	460	3.2	316	319	328	<1.0	400	<1.0	<1.0	24.1	0.223	0.341	120			0.221	<0.010	0.437	0.437	0.0038
RSEM-R6E-EOP	1/16/2021 10:55	ZE2983	M	C103538	7.78	803	468	<1.0	308	313	319	<1.0	390	<1.0	<1.0	23.3	0.214	0.336	118			0.151	<0.010	0.441	0.441	<0.0030
RSEM-R6E-EOP	1/17/2021 13:20	ZE3021	M	C103542	7.87	794	444	2.3	300	306	316	<1.0	385	<1.0	<1.0	23.1	0.211	0.331	114			0.107	<0.010	0.435	0.435	0.0034
RSEM-R6E-EOP	1/17/2021 13:30	ZE3022	D	C103542	7.64	790	472	1.3	299	306	319	<1.0	389	<1.0	<1.0	22.4	0.211	0.333	115			0.149	<0.010	0.440	0.440	<0.0030
RSEM-R6E-EOP	1/18/2021 10:20	ZE2900	M	C103523	7.84	796	456	1.3	300	304	319	<1.0	389	<1.0	<1.0	22.7	0.210	0.329	113			0.147	<0.010	0.429	0.429	<0.0030
RSEM-R6E-EOP	1/19/2021 12:20	ZE5958	M	C104146	8.16	789	392	2.7	297	311	315	<1.0	384	<1.0	<1.0	23.6	0.225	0.332	116			0.149	<0.010	0.383	0.383	<0.0030
RSEM-R6E-EOP	1/20/2021 12:15	ZE6017	M	C104156	8.10	813	424	<1.0	299	318	323	<1.0	394	<1.0	<1.0	24.3	0.228	0.330	114			0.153	<0.010	0.372	0.372	0.0044
RSEM-R6E-EOP	1/21/2021 15:10	ZE9301	M	C104705	7.96	803	456	<1.0	289	298	310	<1.0	378	<1.0	<1.0	22.0	0.210	0.307	110			0.132	<0.010	0.44	0.44	0.0042
RSEM-R6E-EOP	1/21/2021 15:20	ZE9303	D	C104705	8.05	788	420	1.3	295	299	310	<1.0	379	<1.0	<1.0	20.3	0.225	0.318	110			0.135	<0.010	0.45	0.45	0.0033
RSEM-R6E-EOP	1/22/2021 13:00	ZE9298	M	C104704	8.15	818	428	1.0	302	296	331	<1.0	404	<1.0	<1.0	21.2	0.225	0.320	110			0.125	<0.010	0.47	0.47	0.0037
RSEM-R6E-EOP	1/23/2021 15:45	ZF1596	M	C105086	8.07	796	428	<1.0	291	295	334	<1.0	407	<1.0	<1.0	21.6	0.213	0.323	106			0.111	<0.010	0.455	0.455	0.0032
RSEM-R6E-EOP	1/24/2021 13:45	ZF1581	M	C105082	8.19	808	416	<1.0	294	308	332	<1.0	405	<1.0	<1.0	24.4	0.215	0.329	121			0.101	<0.010	0.458	0.458	<0.0030
RSEM-R6E-EOP	1/25/2021 9:50	ZF1640	M	C105090	8.19	815	436	<1.0	297	307	312	<1.0	381	<1.0	<1.0	24.7	0.217	0.328	119			0.041	<0.010	0.470	0.470	0.0037
RSEM-R6E-EOP	1/26/2021 13:20	ZF4771	M	C105637	7.80	819	456	1.1	315	313	333	<1.0	406	<1.0	<1.0	24.7	0.219	0.341	118			0.115	<0.010	0.434	0.434	<0.0030
RSEM-R6E-EOP	1/26/2021 13:30	ZF4772	D	C105637	7.71	820	452	<1.0	318	304	309	<1.0	377	<1.0	<1.0	24.5	0.215	0.343	117			0.133	<0.010	0.435	0.435	<0.0030
RSEM-R6E-EOP	1/27/2021 15:30	ZF6161	M	C105925	7.89	805	460	<1.0	314	316	330	<1.0	402	<1.0	<1.0	24.6	0.212	0.353	112			0.118	<0.010	0.46	0.46	<0.0030
RSEM-R6E-EOP	1/28/2021 15:30	ZF8627	M	C106327	8.17	805	464	1.5	296	305	280	<1.0	342	<1.0	<1.0	24.7	0.247	0.368	118			0.030	<0.010	0.40	0.40	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	1/28/2021 15:40	ZF8628	D	C106327	7.77	808	468	1.4	291	303	328	<1.0	400	<1.0	<1.0	24.7	0.212	0.367	115			0.124	0.018	0.38	0.40	<0.0030
RSEM-R6E-EOP	1/29/2021 13:05	ZF8823	M	C106336	8.31	794	472	1.6	289	306	280	<1.0	341	<1.0	<1.0	26.0	0.230	0.387	115			0.119	<0.010	0.45	0.45	<0.0030
RSEM-R6E-EOP	1/30/2021 13:45	ZG1727	M	C106702	8.08	793	484	1.3	306	308	275	<1.0	336	<1.0	<1.0	25.8	0.223	0.388	111			0.120	<0.010	0.420	0.420	<0.0030
RSEM-R6E-EOP	1/30/2021 13:55	ZG1728	D	C106702	8.18	793	512	<1.0	310	304	271	<1.0	330	<1.0	<1.0	25.6	0.225	0.384	111			0.118	<0.010	0.426	0.426	<0.0030
RSEM-R6E-EOP	1/31/2021 12:25	ZG1721	M	C106699	8.14	793	492	1.4	310	300	273	<1.0	334	<1.0	<1.0	25.8	0.224	0.371	109			0.112	<0.010	0.409	0.409	<0.0030
RSEM-R6E-EOP	2/1/2021 14:15	ZG3586	M	C106954	8.06	788	520	<1.0	292	313	275	<1.0	336	<1.0	<1.0	26.4	0.221	0.395	113			0.115	<0.010	0.390	0.390	<0.0030
RSEM-R6E-EOP	2/1/2021 14:25	ZG3587	D	C106954	8.12	790	512	1.3	295	316	273	<1.0	332	<1.0	<1.0	26.2	0.225	0.398	113			0.124	<0.010	0.383	0.383	<0.0030
RSEM-R6E-EOP	2/2/2021 13:35	ZG6913	M	C107364	8.11	788	468	<1.0	289	312	268	<1.0	327	<1.0	<1.0	27.2	0.221	0.401	118			0.106	<0.010	0.385	0.385	<0.0030
RSEM-R6E-EOP	2/6/2021 13:20	ZH3138	M	C108285	8.15	782	520	<1.0	310	282	265	<1.0	324	<1.0	<1.0	26.2	0.230	0.397	118			0.049	<0.010	0.38	0.38	0.0033
RSEM-R6E-EOP	2/7/2021 13:15	ZH3206	M	C108294	8.20	789	532	1.3	296	282	264	<1.0	322	<1.0	<1.0	26.7	0.228	0.403	122			0.044	<0.010	0.45	0.45	0.0046
RSEM-R6E-EOP	2/9/2021 15:40	ZH7146	M	C109072	8.21	804	496	3.5	291	301	270	<1.0	330	<1.0	<1.0	26.3	0.238	0.439	116			0.070	<0.010	0.462	0.462	0.0048
RSEM-R6E-EOP	2/10/2021 13:00	ZH7145	M	C109071	8.25	804	524	1.5	298	305	275	<1.0	335	<1.0	<1.0	26.4	0.234	0.405	118			0.076	<0.010	0.465	0.465	0.0051
RSEM-R6E-EOP	2/11/2021 16:45	ZH8474	M	C109352	7.86	843	488	<1.0	308	293	332	<1.0	405	<1.0	<1.0	27.3	0.228	0.400	120			0.056	<0.010	0.44	0.44	0.0055
RSEM-R6E-EOP	2/12/2021 10:40	ZH8472	M	C109351	7.86	851	460	<1.0	302	295	333	<1.0	407	<1.0	<1.0	27.9	0.234	0.405	125			0.052	<0.010	0.44	0.44	0.0049
RSEM-R6E-EOP	2/13/2021 13:30	ZH8989	M	C109471	7.75	804	484	<1.0	288	290	262	<1.0	319	<1.0	<1.0	27.2	0.220	0.417	122			0.098	<0.0050	0.469	0.469	0.0038
RSEM-R6E-EOP	2/14/2021 9:45	ZI0120	M	C109675	7.82	816	500	<1.0	292	293	266	<1.0	324	<1.0	<1.0	27.5	0.238	0.408	122			0.046	<0.010	0.457	0.457	0.0034
RSEM-R6E-EOP	2/19/2021 12:45	ZI6370	M	C110747	7.92	836	464	1.8	298	301	284	<1.0	346	<1.0	<1.0	28.2	0.242	0.432	121			0.103	<0.010	0.43	0.43	<0.0030
RSEM-R6E-EOP	2/20/2021 11:30	ZI8655	M	C111165	8.06	807	472	1.0	286	284	272	<1.0	331	<1.0	<1.0	29.0	0.232	0.418	127			0.095	0.013	0.40	0.41	
RSEM-R6E-EOP	2/21/2021 13:30	ZI8310	M	C111114	8.13	805	504	<1.0	288	278	270	<1.0	330	<1.0	<1.0	27.4	0.234	0.414	123			0.109	0.013	0.36	0.37	0.0040
RSEM-R6E-EOP	2/22/2021 15:20	ZJ0342	M	C111442	8.15	759	464	4.0	255	287	304	<1.0	371	<1.0	<1.0	26.9	0.243	0.405	110			0.041	0.015	0.31	0.32	<0.0030
RSEM-R6E-EOP	2/22/2021 15:30	ZJ0343	D	C111442	7.50	767	384	4.3	263	267	308	<1.0	376	<1.0	<1.0	27.4	0.257	0.411	114			0.040	<0.010	0.31	0.31	0.0032
RSEM-R6E-EOP	2/23/2021 14:55	ZJ2756	M	C111785	7.52	763	672	2.7	255	258	284	<1.0	347	<1.0	<1.0	28.4	0.248	0.417	108			0.042	<0.010	0.34	0.34	<0.0030
RSEM-R6E-EOP	2/24/2021 13:50	ZJ5662	M	C112157	7.72	753	476	2.7	287	266	297	<1.0	362	<1.0	<1.0	30.1	0.232	0.453	109			0.054	0.010	0.36	0.37	<0.0030
RSEM-R6E-EOP	2/24/2021 14:00	ZJ5663	D	C112157	7.79	755	496	2.0	263	268	302	<1.0	369	<1.0	<1.0	29.8	0.229	0.453	110			0.061	<0.010	0.37	0.37	<0.0030
RSEM-R6E-EOP	2/25/2021 12:20	ZJ8555	M	C112624	7.72	739	436	2.1	257	256	287	<1.0	350	<1.0	<1.0	31.1	0.240	0.464	106			0.047	0.013	0.42	0.43	0.0036
RSEM-R6E-EOP	2/28/2021 13:00	ZK2233	M	C113095	7.62	752	440	3.9	257	253	253	<1.0	309	<1.0	<1.0	38.6	0.245	0.519	107			0.198	0.016	0.58	0.60	<0.0030
RSEM-R6E-EOP	3/1/2021 9:50	ZK1994	M	C113051	7.68	732	416	1.5	248	260	253	<1.0	309	<1.0	<1.0	36.1	0.235	0.505	104			0.148	0.013	0.45	0.46	<0.0030
RSEM-R6E-EOP	3/2/2021 15:45	ZK8062	M	C114225	7.76	754	400	<1.0	258	259	263	<1.0	321	<1.0	<1.0	35.8	0.248	0.497	108			0.150	0.011	0.435	0.446	<0.0030
RSEM-R6E-EOP	3/3/2021 15:30	ZK8060	M	C114224	7.77	757	420	1.7	255	265	300	<1.0	367	<1.0	<1.0	34.9	0.234	0.501	108			0.056	0.012	0.41	0.42	<0.0030
RSEM-R6E-EOP	3/4/2021 14:00	ZL0407	M	C114582	7.97	751	364	1.1	258	258	235	<1.0	287	<1.0	<1.0	34.6	0.257	0.488	107			0.125	0.012	0.42	0.43	<0.0030
RSEM-R6E-EOP	3/5/2021 12:40	ZL0413	M	C114584	8.07	751	404	<1.0	263	254	234	<1.0	285	<1.0	<1.0	35.5	0.261	0.489	104			0.132	0.012	0.42	0.44	<0.0030
RSEM-R6E-EOP	3/6/2021 9:30	ZL3535	M	C115040	7.88	715	411	13.3	240	241	204	<1.0	249	<1.0	<1.0	38.3	0.257	0.564	110			0.180	0.015	0.321	0.336	<0.0030
RSEM-R6E-EOP	3/7/2021 13:20	ZL3596	M	C115055	8.00	593	360	12.7	197	198	143	<1.0	174	<1.0	<1.0	24.5	0.179	0.255	133			0.120	0.011	0.142	0.153	<0.0030
RSEM-R6E-EOP	3/8/2021 12:00	ZL3597	M	C115055	7.94	622	355	4.1	204	205	144	<1.0	176	<1.0	<1.0	30.7	0.193	0.318	134			0.123	0.013	0.180	0.192	<0.0030
RSEM-R6E-EOP	3/9/2021 14:40	ZL6925	M	C115720	7.98	599	416	4.3	205	206	141	<1.0	172	<1.0	<1.0	29.9	0.188	0.275	130			0.112	0.016	0.17	0.19	<0.0030
RSEM-R6E-EOP	3/10/2021 12:45	ZL8187	M	C115987	8.16	626	382	2.3	204	205	137	<1.0	167	<1.0	<1.0	30.1	0.180	0.302	130			0.104	0.015	0.21	0.23	<0.0030
RSEM-R6E-EOP	3/11/2021 12:50	ZL8465	M	C116050	7.98	602	276	1.0	205	205	141	<1.0	172	<1.0	<1.0	30.0	0.201	0.294	130			0.032	0.015	0.25	0.26	<0.0030
RSEM-R6E-EOP	3/13/2021 13:50	ZM2421	M	C116756	8.11	600	364	<1.0	202	212	141	<1.0	171	<1.0	<1.0	29.1	0.201	0.297	132			0.078	0.013	0.24	0.25	<0.0030
RSEM-R6E-EOP	3/15/2021 11:40	ZM4113	M	C117045	7.97	614	373	3.5	213	210	143	<1.0	174	<1.0	<1.0	35.1	0.217	0.345	129			0.055	0.016	0.17	0.19	<0.0030
RSEM-R6E-EOP	3/15/2021 11:50	ZM4114	D	C117045	8.05	616	364	3.5	215	206	141	<1.0	172	<1.0	<1.0	34.6	0.216	0.343	129			0.124	0.016	0.17	0.19	<0.0030
RSEM-R6E-EOP	3/16/2021 13:30	ZM5656	M	C117434	7.92	606	320	4.4	203	202	135	<1.0	165	<1.0	<1.0	32.9	0.220	0.340	123			0.050	0.015	0.22	0.23	<0.0030
RSEM-R6E-EOP	3/17/2021 14:10	ZM7317	M	C117752	8.10	605	366	2.4	195	199	130	<1.0	159	<1.0	<1.0	33.6	0.188	0.349	127			0.105	0.015	0.18	0.20	<0.0030
RSEM-R6E-EOP	3/17/2021 14:20	ZM7318	D	C117752	7.97	600	364	1.3	196	200	131	<1.0	160	<1.0	<1.0	33.9	0.179	0.347	127			0.057	0.015	0.19	0.20	<0.0030
RSEM-R6E-EOP	3/18/2021 12:40	ZM8873	M	C118063	7.93	615	374	4.5	209	205	126	<1.0	153	<1.0	<1.0	38.6	0.221	0.378	131			0.049	0.020	0.23	0.25	<0.0030
RSEM-R6E-EOP	3/19/2021 13:05	ZM8864	M	C118061	7.91	612	358	4.4	200	202	117	<1.0	143	<1.0	<1.0	41.9	0.231	0.403	127			0.162	0.023	0.23	0.26	<0.0030
RSEM-R6E-EOP	3/19/2021 13:15	ZM8865	D	C118061	8.01	607	368	1.9	204	202	120	<1.0	146	<1.0	<1.0	42.5	0.228	0.406	129			0.157	0.022	0.25	0.28	<0.0030
RSEM-R6E-EOP	3/20/2021 15:35	ZN1534	M	C118497	7.89	606	350	4.0	199	205	113	<1.0	138	<1.0	<1.0	51.9	0.265	0.522	122			0.261	0.029	0.34	0.37	<0.0030
RSEM-R6E-EOP	3/21/2021 11:45	ZN1581	M	C118513	7.92	603	320	2.3	199	202	109	<1.0	133	<1.0	<1.0	49.5	0.258	0.512	117			0.295	0.026	0.36	0.39	<0.0030
RSEM-R6E-EOP	3/21/2021 11:55	ZN1582	D	C118513	7.96	602	304	1.9	202	203	111	<1.0	135	<1.0	<1.0	50.8	0.257	0.518	117			0.226	0.025	0.36	0.38	<0.0030
RSEM-R6E-EOP	3/22/2021 10:50	ZN1161	M	C118411	7.85	596	350	1.4	202	199	109	<1.0	132	<1.0	<1.0	52.0	0.267	0.519	116			0.296	0.026	0.39	0.41	<0.0030
RSEM-R6E-EOP	3/23/2021 13:10	ZN5253	M	C119350	7.98	600	370	1.3	204	210	108	<1.0	131	<1.0	<1.0	51.4	0.220	0.538	113			0.184	0.024	0.40	0.42	0.0076
RSEM-R6E-EOP	3/24/2021 11:45	ZN5256	M	C119352	7.82	597	345	<1.0	205	207	105	<1.0	128	<1.0	<1.0	53.4	0.224	0.544	111			0.200	0.025	0.42	0.44	0.0030
RSEM-R6E-EOP	3/26/2021 11:50	ZN6315	M	C119607	7.89	605	354	1.7	205	196	108	<1.0	132	<1.0	<1.0	56.4	0.230	0.561	113			0.186	0.020	0.48	0.50	0.0090
RSEM-R6E-EOP	3/27/2021 13:30	ZN9494	M	C120087	7.87	614	348	1.7	194	202	94.3	<1.0	115	<1.0	<1.0	48.6	0.229	0.563	108			0.228	0.025	0.41	0.44	<0.0030
RSEM-R6E-EOP	3/28/2021 10:50	ZN9521	M	C120093	7.95	624	342	<1.0	203	204	113	<1.0	138	<1.0	<1.0	53.1	0.246	0.586	117			0.205	0.027	0.40	0.43	0.0033
RSEM-R6E-EOP	3/29/2021 10:30	ZN9580	M	C120108	8.08	640	364	1.4	208	208	116	<1.0	142	<1.0	<1.0	57.1	0.250	0.630	100			0.235	0.026	0.51	0.53	0.0036
RSEM-R6E-EOP	3/30/2021 13:15	ZO2683	M	C120790	7.89	629	358	1.2	212	212	115	<1.0	140	<1.0	<1.0	55.6	0.239	0.595	112			0.203	0.020	0.52	0.54	<0.0030
RSEM-R6E-EOP	3/31/2021 16:30	ZO4116	M	C121130	7.82	620	351	1.7	208	210	116	<1.0	141	<1.0	<1.0	59.6	0.240	0.626	98.6			0.217	0.027	0.49	0.52	<0.0030
RSEM-R6E-EOP	4/1/2021 11:10	ZO4122	M	C121132	7.99	632	338	2.8	213	216	120	<1.0	146	<1.0	<1.0	65.6	0.244	0.676	96.4			0.254	0.028	0.52	0.55	<0.0030
RSEM-R6E-EOP	4/1/2021 11:20	ZO4123	D	C121132	7.98	628	348	2.7	210	211	121	<1.0	148	<1.0	<1.0	63.0	0.245	0.675	95.8			0.252	0.028	0.48	0.51	<0.0030
RSEM-R6E-EOP	4/2/2021 12:30	ZO4864	M	C121238	8.08	580	338	4.0	193	200	114	<1.0	140	<1.0	<1.0	57.0	0.240	0.612	95.1			0.239	0.0256	0.492	0.518	<0.0030
RSEM-R6E-EOP	4/3/2021 13:00	ZO6449	M	C121575	7.95	567	304	<1.0	191	193	109	<1.0	133	<1.0	<1.0	53.7	0.267	0.562	90.5			0.252	0.024	0.47	0.49	<0.0030
RSEM-R6E-EOP	4/4/2021 12:40	ZO6463	M	C121580	7.89	570	324	5.3	187	187	108	<1.0	131	<1.0	<1.0	45.5	0.269	0.515	99.5			0.222	0.027	0.43	0.46	<0.0030
RSEM-R6E-EOP	4/5/2021 12:30	ZO7516	M	C121801	7.99	586	402	6.5	160	160	113	<1.0	138	<1.0	<1.0	24.7	0.253	0.288	144			0.249	0.031	0.29	0.32	<0.0030
RSEM-R6E-EOP	4/5/2021 12:40	ZO7517	D	C121801	8.04	586	356	4.9	159	160	113	<1.0	138	<1.0	<1.0	25.1	0.253	0.290	143			0.240	0.031	0.29	0.33	0.0036
RSEM-R6E-EOP	4/6/2021 14:20	ZO9474	M	C122250	8.16	581	360	3.5	160	159	116	<1.0	142	<1.0	<1.0	25.0	0.251	0.298	142			0.585	0.028	0.27	0.30	<0.0030
RSEM-R6E-EOP	4/7/2021 14:30	ZP0880	M	C122580	7.95	572	312	1.7	158	157	112	<1.0	137	<1.0	<1.0	24.8	0.243	0.290	143			0.324	0.027	0.26	0.29	<0.0030
RSEM-R6E-EOP	4/8/2021 12:00	ZP1742	M	C122796	8.11	560	292	<1.0	147	152	110	<1.0	134	<1.0	<1.0	23.3	0.233	0.290	132			0.183	0.027	0.26	0.28	<0.0030
RSEM-R6E-EOP	4/9/2021 13:20	ZP1764	M	C122801	8.00	554	372	2.4	150	149	109	<1.0	133	<1.0	<1.0	23.6	0.226	0.296	133			0.170	0.026	0.27	0.29	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	4/10/2021 11:05	ZP3593	M	C123204	8.13	556	404	2.3	150	150	110	<1.0	134	<1.0	<1.0	25.2	0.219	0.304	133			0.184	0.026	0.27	0.29	<0.0030
RSEM-R6E-EOP	4/11/2021 12:30	ZP3856	M	C123260	8.08	554	424	1.7	154	150	111	<1.0	135	<1.0	<1.0	24.7	0.235	0.283	131			0.127	0.027	0.26	0.29	<0.0030
RSEM-R6E-EOP	4/11/2021 12:40	ZP3857	D	C123260	8.04	551	384	2.4	148	148	112	<1.0	137	<1.0	<1.0	24.7	0.233	0.274	131			0.220	0.024	0.26	0.28	<0.0030
RSEM-R6E-EOP	4/12/2021 10:40	ZP3853	M	C123259	8.04	558	404	2.3	149	150	113	<1.0	137	<1.0	<1.0	24.1	0.244	0.283	135			0.116	0.022	0.27	0.29	<0.0030
RSEM-R6E-EOP	4/13/2021 11:30	ZP9470	M	C124396	7.93	540	340	2.2	149	140	105	<1.0	128	<1.0	<1.0	24.1	0.212	0.293	131			0.081	0.019	0.24	0.26	0.0034
RSEM-R6E-EOP	4/14/2021 11:00	ZP9473	M	C124397	7.97	523	396	1.1	148	137	101	<1.0	123	<1.0	<1.0	24.1	0.213	0.284	126			0.066	0.018	0.31	0.33	0.0031
RSEM-R6E-EOP	4/15/2021 17:40	ZQ1505	M	C124804	8.12	556	308	5.7	157	150	126	<1.0	154	<1.0	<1.0	18.7	0.205	0.245	124			0.163	0.012	0.16	0.17	0.0038
RSEM-R6E-EOP	4/16/2021 10:40	ZQ1481	M	C124799	8.13	570	299	6.7	155	153	134	<1.0	163	<1.0	<1.0	16.4	0.196	0.211	127			0.199	0.012	0.15	0.16	<0.0030
RSEM-R6E-EOP	4/17/2021 11:30	ZQ3724	M	C125158	8.16	545	296	4.4	146	149	132	<1.0	161	<1.0	<1.0	15.6	0.194	0.203	121			0.148	0.011	0.12	0.14	<0.0030
RSEM-R6E-EOP	4/18/2021 10:45	ZQ3727	M	C125158	8.14	537	308	3.3	147	148	128	<1.0	156	<1.0	<1.0	15.8	0.193	0.197	122			0.117	<0.010	0.12	0.12	<0.0030
RSEM-R6E-EOP	4/19/2021 12:15	ZQ5794	M	C125554	8.08	542	308	4.7	151	146	128	<1.0	157	<1.0	<1.0	15.5	0.197	0.199	119			0.102	<0.010	0.11	0.11	<0.0030
RSEM-R6E-EOP	4/20/2021 10:45	ZQ9980	M	C126323	7.97	550	292	6.7	152	150	130	<1.0	159	<1.0	<1.0	15.6	0.198	0.189	128			0.088	<0.010	0.11	0.11	<0.0030
RSEM-R6E-EOP	4/21/2021 10:30	ZQ9983	M	C126323	8.04	561	224	5.9	148	154	135	<1.0	165	<1.0	<1.0	16.3	0.194	0.194	128			0.130	<0.010	0.12	0.12	<0.0030
RSEM-R6E-EOP	4/22/2021 9:45	ZR1312	M	C126529	8.06	568	492	8.7	165	162	136	<1.0	166	<1.0	<1.0	16.8	0.200	0.210	129			0.077	<0.010	0.18	0.18	<0.0030
RSEM-R6E-EOP	4/23/2021 9:45	ZR1315	M	C126529	8.09	573	412	5.3	172	164	135	<1.0	165	<1.0	<1.0	16.9	0.197	0.223	130			0.058	<0.010	0.20	0.20	0.0031
RSEM-R6E-EOP	4/24/2021 3:00	ZR4687	M	C127059	8.20	565	328	2.3	154	155	134	<1.0	164	<1.0	<1.0	17.2	0.204	0.218	122			0.083	<0.010	0.10	0.10	0.0030
RSEM-R6E-EOP	4/25/2021 14:30	ZR4685	M	C127059	8.25	570	368	3.6	156	157	133	<1.0	162	<1.0	<1.0	17.2	0.206	0.221	126			0.038	<0.010	0.081	0.081	0.0031
RSEM-R6E-EOP	4/26/2021 10:45	ZR5704	M	C127281	8.20	568	292	5.0	161	159	135	<1.0	164	<1.0	<1.0	18.3	0.209	0.241	127			0.048	<0.010	0.046	0.046	<0.0030
RSEM-R6E-EOP	4/27/2021 15:30	ZR7958	M	C127704	8.24	576	352	5.0	170	165	134	<1.0	164	<1.0	<1.0	18.3	0.211	0.225	124			0.043	<0.010	0.072	0.072	0.0033
RSEM-R6E-EOP	4/28/2021 12:40	ZS0315	M	C128230	8.29	558	312	4.1	162	166	139	<1.0	170	<1.0	<1.0	19.0	0.219	0.245	125			0.036	<0.010	0.089	0.089	0.0033
RSEM-R6E-EOP	4/29/2021 10:20	ZS2292	M	C128584	8.16	570	328	11.7	170	171	139	<1.0	169	<1.0	<1.0	19.3	0.242	0.243	125			0.072	<0.010	0.028	0.028	<0.0030
RSEM-R6E-EOP	4/30/2021 11:05	ZS2249	M	C128573	8.29	566	304	5.3	179	160	138	<1.0	169	<1.0	<1.0	19.7	0.244	0.254	128			0.036	<0.010	0.070	0.070	<0.0030
RSEM-R6E-EOP	5/3/2021 10:15	ZS6021	M	C129096	8.28	554	304	9.3	160	159	137	<1.0	167	<1.0	<1.0	19.3	0.248	0.241	119			0.035	<0.010	0.033	0.033	<0.0030
RSEM-R6E-EOP	5/4/2021 13:30	ZS9945	M	C129944	8.32	548	316	3.1	169	159	135	<1.0	165	<1.0	<1.0	19.8	0.211	0.277	116			0.043	<0.010	0.012	0.012	0.0035
RSEM-R6E-EOP	5/5/2021 12:50	ZT3122	M	C130491	8.34	553	396	5.6	173	165	136	1.1	164	1.3	<1.0	23.1	0.214	0.284	115			0.142	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/6/2021 15:20	ZT3103	M	C130484	8.36	556	332	9.4	177	166	132	1.7	157	2.0	<1.0	22.2	0.215	0.313	117			0.061	<0.010	<0.010	<0.010	0.0038
RSEM-R6E-EOP	5/7/2021 11:20	ZT3093	M	C130477	8.27	567	432	15.6	179	174	120	<1.0	146	<1.0	<1.0	24.8	0.207	0.329	121			0.053	<0.010	0.053	0.053	0.0032
RSEM-R6E-EOP	5/8/2021 12:50	ZT6586	M	C130995	8.34	564	232	3.9	164	170	135	<1.0	165	<1.0	<1.0	25.4	0.208	0.335	114			0.032	<0.010	0.017	0.017	<0.0030
RSEM-R6E-EOP	5/9/2021 13:20	ZT6966	M	C131057	8.27	555	308	4.8	167	174	128	<1.0	156	<1.0	<1.0	27.0	0.216	0.358	110			0.033	<0.010	0.013	0.013	<0.0030
RSEM-R6E-EOP	5/10/2021 5:10	ZT6907	M	C131048	8.28	565	304	2.5	167	171	132	<1.0	161	<1.0	<1.0	29.5	0.217	0.392	115			0.107	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	5/11/2021 10:30	ZU0196	M	C131591	8.26	562	304	2.9	181	176	129	<1.0	157	<1.0	<1.0	31.4	0.205	0.424	111			0.043	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	5/11/2021 10:40	ZU0197	D	C131591	8.25	558	312	3.1	177	178	130	<1.0	158	<1.0	<1.0	31.2	0.207	0.419	112			0.046	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	5/12/2021 10:50	ZU2124	M	C131927	8.31	567	308	1.6	171	189	128	<1.0	157	<1.0	<1.0	33.7	0.200	0.462	115			0.024	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/13/2021 10:20	ZU4935	M	C132324	8.26	566	340	1.3	166	179	126	<1.0	153	<1.0	<1.0	35.2	0.200	0.490	113			0.022	<0.010	0.012	0.012	0.0031
RSEM-R6E-EOP	5/13/2021 10:30	ZU4936	D	C132324	8.24	566	392	<1.0	170	181	127	<1.0	155	<1.0	<1.0	34.5	0.200	0.520	114			0.133	<0.010	0.010	0.010	<0.0030
RSEM-R6E-EOP	5/14/2021 10:00	ZU4951	M	C132327	8.33	577	288	<1.0	168	172	137	<1.0	167	<1.0	<1.0	33.3	0.224	0.475	110			0.034	<0.010	0.012	0.012	<0.0030
RSEM-R6E-EOP	5/15/2021 15:00	ZU7901	M	C132915	8.41	587	396	2.8	151	158	139	1.3	166	1.6	<1.0	33.9	0.244	0.494	112			0.028	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/16/2021 14:20	ZU7830	M	C132904	8.41	578	328	1.5	155	151	130	1.6	155	1.9	<1.0	34.9	0.250	0.485	111			0.052	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/17/2021 16:20	ZU9398	M	C133243	8.35	574	404	1.0	150	150	127	1.3	152	1.5	<1.0	34.9	0.240	0.483	112			0.033	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/18/2021 16:20	ZV2801	M	C133850	8.40	540	472	2.2	155	148	114	1.5	135	1.8	<1.0	34.3	0.246	0.492	108			0.111	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/19/2021 13:30	ZV3573	M	C134016	8.32	617	396	2.9	191	185	131	<1.0	159	<1.0	<1.0	56.1	0.233	0.849	112			0.040	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/19/2021 13:40	ZV3574	D	C134016	8.38	622	388	2.5	183	180	116	1.4	138	1.7	<1.0	57.7	0.246	0.831	109			0.029	<0.010	0.013	0.013	0.0040
RSEM-R6E-EOP	5/20/2021 12:00	ZV5698	M	C134406	8.26	735	416	1.1	223	221	104	<1.0	127	<1.0	<1.0	98.4	0.218	1.36	109			0.019	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/21/2021 11:20	ZV5663	M	C134400	8.18	732	440	<1.0	235	223	99.9	<1.0	122	<1.0	<1.0	89.1	0.215	1.41	117			0.025	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/22/2021 11:20	ZV6993	M	C134601	8.04	738	426	3.6	231	233	94.6	<1.0	115	<1.0	<1.0	108	0.220	1.53	122			0.051	<0.0050	<0.020	<0.020	<0.0030
RSEM-R6E-EOP	5/23/2021 14:40	ZV8626	M	C134923	8.29	746	408	<1.0	218	215	90.1	<1.0	110	<1.0	<1.0	112	0.185	1.59	117			0.028	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/24/2021 12:00	ZW1260	M	C135427	8.06	751	368	2.2	208	213	93.2	<1.0	114	<1.0	<1.0	112	0.194	1.64	117			0.056	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/25/2021 9:50	ZW1242	M	C135423	7.82	758	412	2.8	218	212	99.1	<1.0	121	<1.0	<1.0	116	0.188	1.66	115			0.031	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	5/26/2021 12:10	ZW4841	M	C136104	7.93	1070	778	3.2	351	368	90.7	<1.0	111	<1.0	<1.0	191	0.200	3.23	127			0.038	0.0078	0.127	0.135	<0.0030
RSEM-R6E-EOP	5/27/2021 11:30	ZW4834	M	C136103	7.96	1210	968	2.8	418	419	97.5	<1.0	119	<1.0	<1.0	230	0.210	3.61	137			0.044	0.0126	0.230	0.243	<0.0030
RSEM-R6E-EOP	5/28/2021 13:15	ZW4300	M	C136040	8.03	1230	804	1.3	417	423	96.4	<1.0	118	<1.0	<1.0	228	0.213	3.51	138			0.053	0.011	0.058	0.068	<0.0030
RSEM-R6E-EOP	5/29/2021 11:20	ZW9127	M	C136816	8.09	1190	732	1.9	396	415	95.8	<1.0	117	<1.0	<1.0	223	0.200	2.67	134			0.029	<0.010	0.14	0.14	<0.0030
RSEM-R6E-EOP	5/30/2021 10:30	ZW9154	M	C136825	8.03	1160	744	3.5	369	394	90.2	<1.0	110	<1.0	<1.0	218	0.203	2.67	136			0.049	<0.010	0.095	0.095	<0.0030
RSEM-R6E-EOP	5/31/2021 6:00	ZW9167	M	C136832	7.78	1150	760	2.7	362	383	92.6	<1.0	113	<1.0	<1.0	219	0.200	3.39	138			0.031	<0.010	0.084	0.084	<0.0030
RSEM-R6E-EOP	6/5/2021 10:40	ZY0220	M	C138844	6.79	1070	636	3.0	301	310	90.0	<1.0	110	<1.0	<1.0	208	0.231	2.99	142			0.025	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	6/5/2021 10:50	ZY0221	D	C138844	6.78	1060	624	3.5	304	304	60.5	<1.0	73.8	<1.0	<1.0	203	0.227	2.92	139			0.028	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	6/6/2021 10:40	ZY0252	M	C138850	6.81	1060	648	2.3	296	316	52.2	<1.0	63.7	<1.0	<1.0	203	0.231	2.95	141			0.017	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	6/7/2021 10:50	ZY3087	M	C139476	6.87	1010	732	<1.0	301	306	106	<1.0	129	<1.0	<1.0	185	0.232	2.66	148			0.050	<0.010	0.015	0.015	<0.0030
RSEM-R6E-EOP	6/7/2021 11:00	ZY3088	D	C139476	6.95	1000	720	1.5	305	298	106	<1.0	130	<1.0	<1.0	188	0.206	2.71	149			0.031	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/8/2021 11:30	ZY5038	M	C139835	6.95	993	448	<1.0	295	296	101	<1.0	123	<1.0	<1.0	169	0.238	2.37	147			0.245	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/9/2021 13:30	ZY6852	M	C140198	7.35	973	564	<1.0	296	290	98.7	<1.0	120	<1.0	<1.0	164	0.196	2.29	151			0.220	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/9/2021 13:40	ZY6853	D	C140198	7.33	979	576	<1.0	284	297	96.0	<1.0	117	<1.0	<1.0	163	0.201	2.32	153			0.367	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/10/2021 11:45	ZY8799	M	C140527	7.47	974	552	<1.0	288	285	95.4	<1.0	116	<1.0	<1.0	162	0.202	2.35	156			0.043	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	6/11/2021 14:00	ZY9642	M	C140675	7.35	969	556	<1.0	300	285	93.7	<1.0	114	<1.0	<1.0	162	0.215	2.37	154			0.026	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	6/11/2021 14:10	ZY9643	D	C140675	7.30	967	548	1.8	289	281	94.7	<1.0	116	<1.0	<1.0	162	0.307	2.39	159			0.030	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-EOP	6/15/2021 11:20	AAB013	M	C142607	8.00	937	596	<1.0	290	281	68.0	<1.0	83.0	<1.0	<1.0	153	0.208	2.23	154			0.028	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/16/2021 12:00	AAB002	M	C142604	8.09	941	536	<1.0	261	278	67.0	<1.0	81.8	<1.0	<1.0	148	0.217	2.13	158			0.066	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/17/2021 11:00	AAC467	M	C142866	8.12	948	592	4.2	304	298	78.3	<1.0	95.6	<1.0	<1.0	156	0.219	2.08	161			0.064	<0.010	0.010	0.010	<0.0030
RSEM-R6E-EOP	6/18/2021 12:00	AAC475	M	C142867	8.04	937	552	<1.0	304	298	74.7	<1.0	91.2	<1.0	<1.0	147	0.225	2.14	161			0.031	<0.010	0.037	0.037	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	6/19/2021 11:00	AAF584	M	C143352	8.13	926	588	2.3	273	295	68.8	<1.0	83.9	<1.0	<1.0	152	0.261	1.91	163			0.033	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/20/2021 10:00	AAF489	M	C143330	8.04	924	612	<1.0	316	291	58.3	<1.0	71.1	<1.0	<1.0	158	0.240	2.22	161			0.176	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	6/21/2021 5:40	AAF560	M	C143340	7.84	921	552	1.1	300	284	52.1	<1.0	63.6	<1.0	<1.0	158	0.217	2.22	162			0.036	<0.010	0.012	0.012	<0.0030
RSEM-R6E-EOP	7/17/2021 15:40	ACC247	M	C151542	7.52	902	372	1.2	251	245	98.1	<1.0	120	<1.0	<1.0	120	0.268	1.83	160			<0.015	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	7/18/2021 13:30	ACC415	M	C151549	7.68	894	488	3.3	262	250	106	<1.0	130	<1.0	<1.0	110	0.285	1.78	160			0.029	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	7/19/2021 15:15	ACF036	M	C151946	7.96	860	400	4.4	229	236	96.5	<1.0	118	<1.0	<1.0	110	0.241	1.75	160			0.038	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	7/20/2021 14:30	ACH813	M	C152456	7.51	839	460	2.3	252	232	94.8	<1.0	116	<1.0	<1.0	100	0.244	1.65	150			<0.015	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	7/20/2021 14:40	ACH814	D	C152456	7.86	844	456	2.1	250	233	95.1	<1.0	116	<1.0	<1.0	96	0.256	1.69	150			0.018	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	7/21/2021 15:40	ACH932	M	C152481	7.91	831	488	1.6	242	240	103	<1.0	125	<1.0	<1.0	110	0.253	1.65	165			0.034	<0.010	0.047	0.047	<0.0030
RSEM-R6E-EOP	7/22/2021 17:15	ACL553	M	C152988	7.94	1130	788	5.5	462	430	113	<1.0	138	<1.0	<1.0	140	0.350	1.98	236			0.054	0.044	0.69	0.73	<0.0030
RSEM-R6E-EOP	7/23/2021 11:30	ACL699	M	C153012	7.46	1070	752	3.5	426	412	97.6	<1.0	119	<1.0	<1.0	131	0.329	2.00	216			0.040	0.042	0.62	0.67	<0.0030
RSEM-R6E-EOP	7/23/2021 11:40	ACL700	D	C153012	7.58	1070	784	3.3	424	405	97.9	<1.0	119	<1.0	<1.0	135	0.326	2.05	248			0.050	0.042	0.63	0.67	<0.0030
RSEM-R6E-EOP	7/24/2021 14:40	ACO406	M	C153513	7.93	1040	708	2.1	412	380	102	<1.0	124	<1.0	<1.0	136	0.316	1.96	239			0.026	0.040	0.49	0.53	<0.0030
RSEM-R6E-EOP	7/25/2021 13:50	ACO188	M	C153467	7.89	1040	700	1.9	380	370	101	<1.0	124	<1.0	<1.0	133	0.317	1.92	236			0.026	0.036	0.51	0.54	<0.0030
RSEM-R6E-EOP	7/25/2021 14:00	ACO189	D	C153467	7.94	1040	720	1.9	382	374	95.3	<1.0	116	<1.0	<1.0	135	0.306	1.92	236			0.025	0.035	0.39	0.43	<0.0030
RSEM-R6E-EOP	7/26/2021 10:35	ACN520	M	C153324	7.72	1010	716	<1.0	369	366	102	<1.0	125	<1.0	<1.0	128	0.343	1.92	243			0.036				<0.0030
RSEM-R6E-EOP	7/27/2021 11:00	ACT043	M	C154246	7.88	1010	692	2.6	383	349	88.6	<1.0	108	<1.0	<1.0	133	0.316	1.83	242			<0.015	0.025	0.34	0.37	<0.0030
RSEM-R6E-EOP	7/28/2021 12:00	ACV589	M	C154699	7.61	999	656	<1.0	357	344	98.5	<1.0	120	<1.0	<1.0	124	0.307	1.84	248			0.048	0.018	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	8/2/2021 5:20	ADC744	M	C155936	6.88	904	524	<1.0	310	317	57.7	<1.0	70.4	<1.0	<1.0	120	0.293	1.82	235			0.043	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-EOP	8/5/2021 10:45	ADK133	M	C157133	6.97	875	552	2.1	311	283	63.7	<1.0	77.7	<1.0	<1.0	115	0.302	1.62	224			0.055	0.011	0.033	0.043	<0.0030
RSEM-R6E-EOP	8/5/2021 10:55	ADK134	D	C157133	6.84	878	528	2.3	309	284	54.1	<1.0	66.0	<1.0	<1.0	115	0.305	1.64	220			0.027	0.014	0.026	0.040	<0.0030
RSEM-R6E-EOP	8/6/2021 11:40	ADK122	M	C157131	7.24	1110	692	2.1	376	442	95.1	<1.0	116	<1.0	<1.0	182	0.343	2.63	216			0.101	0.035	0.37	0.41	<0.0030
RSEM-R6E-EOP	8/7/2021 11:35	ADM457	M	C157545	7.25	1310	916	3.4	566	469	80.0	<1.0	97.6	<1.0	<1.0	233	0.335	3.32	221			0.051	0.053	0.59	0.64	<0.0030
RSEM-R6E-EOP	8/8/2021 12:20	ADN227	M	C157651	7.55	1210	752	1.9	461	441	91.3	<1.0	111	<1.0	<1.0	211	0.314	2.92	194			0.060	0.047	0.48	0.53	<0.0030
RSEM-R6E-EOP	8/8/2021 12:30	ADN228	D	C157651	7.59	1210	740	1.8	453	436	93.0	<1.0	113	<1.0	<1.0	210	0.322	3.01	191			0.060	0.046	0.49	0.54	<0.0030
RSEM-R6E-EOP	8/9/2021 11:45	ADM367	M	C157523	7.68	1140	672	1.4	482	419	97.6	<1.0	119	<1.0	<1.0	198	0.303	2.51	179			0.058	0.041	0.45	0.49	<0.0030
RSEM-R6E-EOP	8/10/2021 10:40	ADP899	M	C158211	7.93	1110	824	<1.0	412	412	107	<1.0	131	<1.0	<1.0	188	0.576	2.63	177			0.061	0.041	0.42	0.46	<0.0030
RSEM-R6E-EOP	8/11/2021 12:30	ADR988	M	C158615	7.10	1040	668	1.8	399	381	103	<1.0	125	<1.0	<1.0	176	0.278	2.29	172			0.102	0.034	0.26	0.29	<0.0030
RSEM-R6E-EOP	8/12/2021 11:30	ADU538	M	C159104	7.12	1000	672	<1.0	372	397	92.1	<1.0	112	<1.0	<1.0	166	0.276	2.13	165			0.082	0.033	0.30	0.33	<0.0030
RSEM-R6E-EOP	8/13/2021 10:40	ADU545	M	C159105	7.29	961	624	<1.0	366	382	101	<1.0	123	<1.0	<1.0	158	0.268	2.21	159			0.128	0.030	0.23	0.26	<0.0030
RSEM-R6E-EOP	8/14/2021 11:00	ADW200	M	C159435	7.14	906	572	2.2	329	331	85.8	<1.0	105	<1.0	<1.0	143	0.269	1.97	153			0.051	0.023	<0.010	0.029	<0.0030
RSEM-R6E-EOP	8/15/2021 11:20	ADW427	M	C159489	7.08	846	528	2.7	334	305	85.0	<1.0	104	<1.0	<1.0	130	0.272	1.86	149			0.152	0.019	0.073	0.092	<0.0030
RSEM-R6E-EOP	8/16/2021 11:20	ADY262	M	C159861	7.18	816	404	<1.0	305	289	89.0	<1.0	109	<1.0	<1.0	119	0.270	1.63	140			0.046	0.018	<0.010	0.015	<0.0030
RSEM-R6E-EOP	8/17/2021 11:30	AED545	M	C160795	7.24	766	408	1.1	289	285	92.9	<1.0	113	<1.0	<1.0	101	0.260	1.46	132			0.065	0.013	0.032	0.045	<0.0030
RSEM-R6E-EOP	8/18/2021 11:00	AED516	M	C160793	7.52	711	672	2.7	275	264	103	<1.0	125	<1.0	<1.0	87.8	0.258	1.25	126			0.032	<0.010	0.023	0.023	<0.0030
RSEM-R6E-EOP	8/19/2021 13:40	AEF597	M	C161077	7.82	692	448	<1.0	232	254	99.2	<1.0	121	<1.0	<1.0	79.5	0.249	1.14	120			0.075	<0.010	<0.050	<0.050	0.0031
RSEM-R6E-EOP	8/20/2021 10:00	AEF522	M	C161059	7.37	659	380	<1.0	266	257	105	<1.0	128	<1.0	<1.0	77.1	0.248	1.07	119			0.059	<0.010	0.014	0.014	<0.0030
RSEM-R6E-EOP	8/21/2021 10:40	AEI348	M	C161420	7.59	642	452	<1.0	221	246	111	<1.0	135	<1.0	<1.0	70.3	0.245	0.906	116			0.078	<0.010	0.013	0.013	<0.0030
RSEM-R6E-EOP	8/22/2021 12:00	AEI410	M	C161433	7.59	1120	784	3.1	523	493	74.8	<1.0	91.2	<1.0	<1.0	179	0.367	2.70	208			0.098	0.025	0.54	0.56	<0.0030
RSEM-R6E-EOP	8/23/2021 11:00	AEL590	M	C161925	7.52	1180	820	1.6	491	491	106	<1.0	130	<1.0	<1.0	197	0.356	3.04	182			0.155	0.036	0.75	0.78	<0.0030
RSEM-R6E-EOP	8/24/2021 16:55	AEN129	M	C162291	7.31	1130	760	<1.0	480	484	96.5	<1.0	118	<1.0	<1.0	189	0.410	2.99	199			0.051	0.034	0.77	0.81	<0.0030
RSEM-R6E-EOP	8/25/2021 16:35	AEP240	M	C162703	7.60	1080	664	1.5	435	425	102	<1.0	124	<1.0	<1.0	160	0.405	2.26	198			0.061	0.031	0.69	0.72	<0.0030
RSEM-R6E-EOP	8/26/2021 10:10	AER552	M	C163145	7.61	1040	652	<1.0	432	420	118	<1.0	144	<1.0	<1.0	148	0.414	1.91	193			0.062	0.028	0.66	0.69	<0.0030
RSEM-R6E-EOP	8/26/2021 10:20	AER553	D	C163145	7.64	1040	660	<1.0	428	411	114	<1.0	139	<1.0	<1.0	148	0.412	1.95	191			0.063	0.029	0.71	0.74	<0.0030
RSEM-R6E-EOP	8/27/2021 10:15	AER546	M	C163144	7.80	962	592	<1.0	401	378	123	<1.0	150	<1.0	<1.0	121	0.394	1.82	189			0.066	0.025	0.54	0.56	<0.0030
RSEM-R6E-EOP	8/28/2021 10:50	AEV122	M	C163811	7.69	922	582	<1.0	370	352	193	<1.0	235	<1.0	<1.0	104	0.378	1.52	178			0.017	0.023	0.49	0.51	0.0034
RSEM-R6E-EOP	8/28/2021 11:00	AEV123	D	C163811	7.61	915	544	<1.0	358	350	193	<1.0	236	<1.0	<1.0	106	0.378	1.52	178			0.023	0.023	0.55	0.57	<0.0030
RSEM-R6E-EOP	8/29/2021 9:55	AEV010	M	C163786	7.43	884	440	1.6	351	339	139	<1.0	169	<1.0	<1.0	95.5	0.371	1.36	173			0.020	0.022	0.47	0.49	<0.0030
RSEM-R6E-EOP	8/30/2021 9:55	AEX827	M	C164176	7.40	825	604	<1.0	337	332	140	<1.0	170	<1.0	<1.0	81.7	0.355	1.19	168			<0.015	0.019	0.36	0.38	<0.0030
RSEM-R6E-EOP	8/30/2021 10:05	AEX828	D	C164176	7.38	852	560	<1.0	338	327	139	<1.0	170	<1.0	<1.0	81.2	0.357	1.20	169			0.032	0.019	0.36	0.38	<0.0030
RSEM-R6E-EOP	8/31/2021 16:35	AFA831	M	C164798	8.20	815	480	<1.0	320	311	136	<1.0	166	<1.0	<1.0	68.2	0.326	0.981	174			0.065	0.019	0.36	0.38	<0.0030
RSEM-R6E-EOP	9/1/2021 15:30	AFC990	M	C165103	8.25	781	472	<1.0	319	298	137	<1.0	168	<1.0	<1.0	60.9	0.319	0.917	171			0.053	0.015	0.25	0.26	<0.0030
RSEM-R6E-EOP	9/1/2021 15:40	AFC991	D	C165103	8.24	779	464	<1.0	319	301	135	<1.0	165	<1.0	<1.0	61.8	0.330	0.931	171			0.037	0.016	0.29	0.31	<0.0030
RSEM-R6E-EOP	9/2/2021 11:10	AFF606	M	C165563	7.84	777	540	<1.0	309	297	144	<1.0	175	<1.0	<1.0	64.7	0.338	0.890	168			0.056	0.014	0.20	0.21	<0.0030
RSEM-R6E-EOP	9/3/2021 11:05	AFF864	M	C165588	7.95	742	612	<1.0	293	288	145	<1.0	177	<1.0	<1.0	56.6	0.332	0.772	161			<0.015	0.012	0.13	0.14	<0.0030
RSEM-R6E-EOP	9/3/2021 11:15	AFF865	D	C165588	7.98	745	560	<1.0	287	292	138	<1.0	168	<1.0	<1.0	54.7	0.329	0.766	159			<0.015	0.012	0.14	0.15	<0.0030
RSEM-R6E-EOP	9/4/2021 16:10	AFH288	M	C165785	7.76	692	434	1.6	285	270	137	<1.0	167	<1.0	<1.0	47.2	0.300	0.728	150			0.025	0.0093	0.159	0.168	<0.0030
RSEM-R6E-EOP	9/5/2021 13:50	AFI819	M	C166081	7.91	694	432	1.0	272	258	142	<1.0	173	<1.0	<1.0	41.0	0.300	0.608	146			0.020	<0.010	0.073	0.073	<0.0030
RSEM-R6E-EOP	9/5/2021 14:00	AFI820	D	C166081	7.77	692	420	<1.0	271	258	143	<1.0	174	<1.0	<1.0	41.4	0.300	0.618	148			0.023	<0.010	0.076	0.076	<0.0030
RSEM-R6E-EOP	9/6/2021 12:15	AFI718	M	C166063	7.79	678	460	<1.0	264	259	144	<1.0	176	<1.0	<1.0	39.5	0.294	0.585	149			<0.015	<0.010	0.15	0.15	<0.0030
RSEM-R6E-EOP	9/7/2021 11:20	AFL344	M	C166557	8.29	655	404	<1.0	263	247	133	<1.0	163	<1.0	<1.0	37.2	0.283	0.525	143			0.019	<0.010	0.055	0.055	<0.0030
RSEM-R6E-EOP	9/8/2021 10:50	AFO056	M	C167059	7.67	640	368	<1.0	265	248	141	<1.0	172	<1.0	<1.0	36.4	0.294	0.486	133			0.022	<0.010	0.071	0.071	<0.0030
RSEM-R6E-EOP	9/9/2021 11:20	AFQ844	M	C167445	8.32	660	292	1.9	274	263	146	1.0	176	1.2	<1.0	37.4	0.237	0.442	138			0.084	<0.010	0.057	0.057	<0.0030
RSEM-R6E-EOP	9/10/2021 9:50	AFQ880	M	C167449	8.28	654	264	6.1	273	241	138	<1.0	168	<1.0	<1.0	36.7	0.234	0.459	138			0.080	<0.010	0.020	0.020	<0.0030
RSEM-R6E-EOP	9/11/2021 12:00	AFV352	M	C168029	8.23	653	384	<1.0	266	238	137	<1.0	167	<1.0	<1.0	37.1	0.288	0.485	139			<0.015	<0.010	0.059	0.059	<0.0030
RSEM-R6E-EOP	9/12/2021 13:00	AFV416	M	C168037	8.22	659	332	<1.0	258	230	138	<1.0	168	<1.0	<1.0	38.4	0.281	0.515	142			0.032	<0.010	0.035	0.035	<0.0030
RSEM-R6E-EOP	9/13/2021 5:00	AFV243	M	C168020	7.91	661	388	<1.0	270	230	144	<1.0	175	<1.0	<1.0	39.1	0.226	0.483	144			0.029	<0.010	0.037	0.037	<0.0030
RSEM-R6E-EOP	9/14/2021 16:30	AGB015	M	C169017	8.16	653	392	<1.0	253	249	145	<1.0	177	<1.0	<1.0	39.0	0.265	0.467	145			0.050	<0.010	0.019	0.019	<0.0030
RSEM-R6E-EOP	9/15/2021 10:20	AGD164	M	C169361	8.16	667	368	<1.0	263	251	164	<1.0	200	<1.0	<1.0	40.7	0.264	0.485	147			0.115	<0.010	0.030	0.030	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	9/16/2021 12:35	AGG327	M	C169805	8.24	676	372	<1.0	278	267	138	<1.0	169	<1.0	<1.0	43.6	0.269	0.529	152			0.025	<0.010	0.042	0.042	<0.0030
RSEM-R6E-EOP	9/16/2021 12:45	AGG328	D	C169805	8.29	683	400	<1.0	269	268	146	<1.0	178	<1.0	<1.0	41.8	0.242	0.527	151			0.023	<0.010	0.032	0.032	<0.0030
RSEM-R6E-EOP	9/17/2021 10:40	AGG307	M	C169799	8.21	695	428	<1.0	272	273	140	<1.0	170	<1.0	<1.0	43.1	0.268	0.535	151			0.015	<0.010	0.14	0.14	<0.0030
RSEM-R6E-EOP	9/18/2021 12:00	AGJ632	M	C170329	8.08	708	436	<1.0	292	285	197	<1.0	241	<1.0	<1.0	45.4	0.291	0.546	157			0.051	<0.010	0.063	0.063	<0.0030
RSEM-R6E-EOP	9/18/2021 12:10	AGJ633	D	C170329	8.15	710	436	<1.0	295	278	172	<1.0	210	<1.0	<1.0	46.1	0.303	0.544	152			0.046	<0.010	0.069	0.069	<0.0030
RSEM-R6E-EOP	9/19/2021 11:10	AGJ664	M	C170331	8.16	717	436	<1.0	292	288	186	<1.0	227	<1.0	<1.0	42.9	0.296	0.534	150			0.042	<0.010	0.082	0.082	<0.0030
RSEM-R6E-EOP	9/20/2021 10:20	AGM219	M	C170680	8.08	716	388	<1.0	300	280	192	<1.0	234	<1.0	<1.0	43.7	0.272	0.549	155			<0.015	<0.010	0.12	0.12	<0.0030
RSEM-R6E-EOP	9/20/2021 10:30	AGM220	D	C170680	8.14	722	436	<1.0	302	284	185	<1.0	226	<1.0	<1.0	42.2	0.287	0.538	148			0.043	<0.010	0.12	0.12	<0.0030
RSEM-R6E-EOP	9/21/2021 11:10	AGO663	M	C171134	8.24	702	408	<1.0	306	280	156	<1.0	191	<1.0	<1.0	40.7	0.250	0.536	149			<0.015	<0.010	0.041	0.041	<0.0030
RSEM-R6E-EOP	9/22/2021 10:45	AGR063	M	C171568	8.14	723	436	1.6	300	279	182	<1.0	223	<1.0	<1.0	41.4	0.241	0.541	150			<0.015	<0.010	0.12	0.12	<0.0030
RSEM-R6E-EOP	9/22/2021 10:55	AGR064	D	C171568	8.23	727	432	3.3	301	283	157	<1.0	192	<1.0	<1.0	40.1	0.249	0.535	150			<0.015	<0.010	0.13	0.13	<0.0030
RSEM-R6E-EOP	9/23/2021 16:25	AGT564	M	C171954	8.30	697	412	<1.0	274	272	152	<1.0	186	<1.0	<1.0	39.4	0.262	0.492	148			<0.015	<0.010	0.10	0.10	<0.0030
RSEM-R6E-EOP	9/24/2021 12:45	AGV849	M	C172263	8.33	668	442	2.0	281	283	160	1.8	191	2.2	<1.0	40.5	0.950	0.463	153			0.017	<0.0050	0.120	0.120	<0.0030
RSEM-R6E-EOP	9/25/2021 15:45	AGX495	M	C172580	8.19	651	408	2.1	281	278	195	<1.0	238	<1.0	<1.0	33.9	0.296	0.434	137			<0.015	<0.010	0.11	0.11	<0.0030
RSEM-R6E-EOP	9/26/2021 15:10	AGX363	M	C172552	8.13	627	372	<1.0	270	273	209	<1.0	256	<1.0	<1.0	30.1	0.230	0.378	115			<0.015	<0.010	0.11	0.11	<0.0030
RSEM-R6E-EOP	9/26/2021 15:20	AGX364	D	C172552	8.11	625	328	1.1	259	274	202	<1.0	247	<1.0	<1.0	30.4	0.220	0.368	117			<0.015	<0.010	0.11	0.11	<0.0030
RSEM-R6E-EOP	9/27/2021 11:30	AGZ867	M	C172958	8.11	609	384	2.8	285	280	170	<1.0	207	<1.0	<1.0	27.5	0.215	0.386	103			<0.015	<0.010	0.16	0.16	<0.0030
RSEM-R6E-EOP	9/28/2021 11:00	AHC015	M	C173431	8.04	656	420	1.4	302	311	172	<1.0	209	<1.0	<1.0	36.4	0.221	0.568	111			<0.015	<0.010	0.30	0.30	<0.0030
RSEM-R6E-EOP	9/29/2021 12:00	AHF732	M	C174181	8.17	654	348	<1.0	286	283	171	<1.0	209	<1.0	<1.0	39.5	0.225	0.555	106			<0.015	<0.010	0.28	0.28	<0.0030
RSEM-R6E-EOP	9/30/2021 11:00	AHF782	M	C174188	8.15	664	384	3.3	291	318	175	<1.0	214	<1.0	<1.0	41.1	0.228	0.504	111			<0.015	<0.010	0.29	0.29	0.0037
RSEM-R6E-EOP	10/1/2021 12:00	AHF785	M	C174189	8.14	666	412	<1.0	284	315	188	<1.0	230	<1.0	<1.0	38.2	0.224	0.480	113			0.054	<0.010	0.18	0.18	<0.0030
RSEM-R6E-EOP	10/2/2021 10:30	AHI562	M	C174687	8.16	667	404	1.95	284	338	192	<1.0	234	<1.0	<1.0	36.5	0.221	0.473	111			0.048	<0.010	0.22	0.22	<0.0030
RSEM-R6E-EOP	10/3/2021 12:00	AHI566	M	C174689	8.03	651	388	<1.0	275	313	182	<1.0	222	<1.0	<1.0	34.2	0.211	0.438	114			<0.015	<0.010	0.21	0.21	<0.0030
RSEM-R6E-EOP	10/4/2021 8:00	AHI553	M	C174685	8.07	638	384	<1.0	280	318	188	<1.0	229	<1.0	<1.0	32.9	0.213	0.418	110			0.073	<0.010	0.22	0.22	<0.0030
RSEM-R6E-EOP	10/5/2021 14:20	AHO714	M	C175650	8.05	625	352	<1.0	282	301	178	<1.0	217	<1.0	<1.0	30.7	0.225	0.398	109			<0.015	<0.010	0.33	0.33	<0.0030
RSEM-R6E-EOP	10/5/2021 14:30	AHO715	D	C175650	8.05	624	352	<1.0	290	281	179	<1.0	218	<1.0	<1.0	30.8	0.226	0.397	108			0.036	<0.010	0.27	0.27	<0.0030
RSEM-R6E-EOP	10/6/2021 11:20	AHR784	M	C176098	8.24	621	356	<1.0	286	263	191	<1.0	233	<1.0	<1.0	29.5	0.221	0.353	104			<0.015	<0.010	0.31	0.31	<0.0030
RSEM-R6E-EOP	10/7/2021 17:10	AHU809	M	C176559	8.08	611	380	1.9	281	257	173	<1.0	212	<1.0	<1.0	28.9	0.185	0.421	96.9			<0.015	<0.010	0.37	0.37	<0.0030
RSEM-R6E-EOP	10/7/2021 17:20	AHU810	D	C176559	8.06	607	392	0.99	285	259	172	<1.0	209	<1.0	<1.0	29.3	0.187	0.398	96.7			<0.015	<0.010	0.39	0.39	0.0035
RSEM-R6E-EOP	10/8/2021 10:45	AHU797	M	C176557	7.93	611	404	<1.0	286	264	170	<1.0	208	<1.0	<1.0	29.1	0.165	0.368	98.9			<0.015	<0.010	0.40	0.40	0.0030
RSEM-R6E-EOP	10/9/2021 11:40	AHX004	M	C176838	7.98	617	380	3.6	288	267	193	<1.0	235	<1.0	<1.0	26.2	0.200	0.348	105			<0.015	0.0051	0.407	0.412	<0.0030
RSEM-R6E-EOP	10/9/2021 11:50	AHX005	D	C176838	8.14	618	342	3.2	270	268	194	<1.0	237	<1.0	<1.0	25.8	0.210	0.328	96.1			<0.015	0.0053	0.406	0.411	<0.0030
RSEM-R6E-EOP	10/10/2021 12:40	AHX000	M	C176837	8.15	605	346	3.6	263	266	190	<1.0	232	<1.0	<1.0	25.3	0.200	0.325	104			0.052	<0.0050	0.416	0.416	0.0335
RSEM-R6E-EOP	10/11/2021 14:20	AHY659	M	C177084	8.09	590	328	<1.0	268	258	189	<1.0	231	<1.0	<1.0	25.7	0.166	0.334	90.1			<0.015	<0.010	0.48	0.48	<0.0030
RSEM-R6E-EOP	10/11/2021 14:30	AHY660	D	C177084	8.08	591	360	<1.0	274	259	186	<1.0	227	<1.0	<1.0	24.7	0.165	0.334	90.1			<0.015	<0.010	0.48	0.48	<0.0030
RSEM-R6E-EOP	10/12/2021 15:50	AIB243	M	C177600	8.11	590	348	<1.0	268	247	185	<1.0	226	<1.0	<1.0	23.6	0.174	0.414	91.1			<0.015	<0.010	0.46	0.46	<0.0030
RSEM-R6E-EOP	10/13/2021 11:30	AIE373	M	C178189	8.16	587	348	1.38	255	267	206	<1.0	252	<1.0	<1.0	24.3	0.229	0.291	92.8			<0.015	<0.010	0.45	0.45	0.0031
RSEM-R6E-EOP	10/13/2021 11:40	AIE374	D	C178189	8.17	589	348	1.7	245	262	192	<1.0	234	<1.0	<1.0	23.5	0.187	0.292	90.5			0.041	<0.010	0.50	0.50	<0.0030
RSEM-R6E-EOP	10/14/2021 10:40	AIG808	M	C178651	8.16	577	324	<1.0	243	238	199	<1.0	243	<1.0	<1.0	23.0	0.192	0.288	86.2			<0.015	<0.010	0.50	0.50	<0.0030
RSEM-R6E-EOP	10/15/2021 11:00	AII740	M	C178993	8.28	573	348	1.2	258	258	176	<1.0	215	<1.0	<1.0	22.2	0.210	0.271	82.7			<0.015	0.0067	0.440	0.447	0.0127
RSEM-R6E-EOP	10/15/2021 11:10	AII741	D	C178993	8.26	571	360	2.0	260	255	182	<1.0	222	<1.0	<1.0	22.2	0.120	0.276	87.8			<0.015	0.0066	0.440	0.447	0.0058
RSEM-R6E-EOP	10/16/2021 14:20	AIL330	M	C179338	8.15	557	360	<1.0	236	240	198	<1.0	241	<1.0	<1.0	23.9	0.191	0.268	83.0			0.017	<0.010	0.51	0.51	<0.0030
RSEM-R6E-EOP	10/17/2021 14:10	AIL266	M	C179325	8.10	559	348	<1.0	237	233	185	<1.0	225	<1.0	<1.0	22.3	0.193	0.264	79.6			0.017	<0.010	0.57	0.57	<0.0030
RSEM-R6E-EOP	10/17/2021 14:20	AIL267	D	C179325	8.15	562	336	<1.0	240	236	185	<1.0	225	<1.0	<1.0	23.5	0.192	0.268	81.4			0.019	<0.010	0.57	0.57	<0.0030
RSEM-R6E-EOP	10/18/2021 9:55	AIL342	M	C179344	8.06	548	340	<1.0	241	239	186	<1.0	226	<1.0	<1.0	24.1	0.188	0.273	79.9			0.018	<0.010	0.46	0.46	0.0041
RSEM-R6E-EOP	10/19/2021 12:00	AIR751	M	C180384	8.11	546	300	<1.0	254	234	195	<1.0	238	<1.0	<1.0	23.1	0.188	0.262	79.3			<0.015	<0.010	0.47	0.47	<0.0030
RSEM-R6E-EOP	10/20/2021 12:00	AIT534	M	C180689	8.09	573	336	<1.0	242	236	187	<1.0	229	<1.0	<1.0	22.9	0.180	0.256	79.8			<0.015	<0.010	0.47	0.47	<0.0030
RSEM-R6E-EOP	10/21/2021 12:00	AIW012	M	C181069	8.10	553	344	<1.0	248	239	185	<1.0	226	<1.0	<1.0	21.7	0.159	0.269	78.4			<0.015	<0.010	0.45	0.45	<0.0030
RSEM-R6E-EOP	10/22/2021 10:00	AIW017	M	C181072	8.15	551	320	<1.0	244	236	184	<1.0	225	<1.0	<1.0	23.4	0.160	0.275	79.9			<0.015	<0.010	0.44	0.44	<0.0030
RSEM-R6E-EOP	10/23/2021 10:30	AIZ371	M	C181550	7.93	573	328	<1.0	239	239	181	<1.0	221	<1.0	<1.0	24.3	0.160	0.300	87.7			<0.015	<0.010	0.45	0.45	0.0033
RSEM-R6E-EOP	10/24/2021 11:00	AIZ351	M	C181544	8.11	588	352	<1.0	242	243	183	<1.0	224	<1.0	<1.0	27.3	0.166	0.329	92.8			<0.015	<0.010	0.44	0.44	0.0031
RSEM-R6E-EOP	10/25/2021 5:30	AIZ358	M	C181547	8.13	645	400	<0.96	268	262	193	<1.0	236	<1.0	<1.0	31.2	0.176	0.371	107			<0.015	<0.010	0.42	0.42	0.0030
RSEM-R6E-EOP	10/26/2021 10:20	AJF136	M	C182473	8.18	677	400	1.1	269	282	195	<1.0	237	<1.0	<1.0	33.2	0.175	0.422	116			<0.015	<0.010	0.29	0.29	<0.0030
RSEM-R6E-EOP	10/26/2021 10:30	AJF137	D	C182473	8.12	672	392	42.3	273	284	194	<1.0	237	<1.0	<1.0	33.1	0.175	0.414	119			<0.015	<0.010	0.26	0.26	<0.0030
RSEM-R6E-EOP	10/27/2021 14:30	AJH724	M	C182990	8.23	684	424	1.7	266	282	195	<1.0	238	<1.0	<1.0	34.1	0.177	0.419	119			<0.015	<0.010	0.28	0.28	<0.0030
RSEM-R6E-EOP	10/28/2021 15:30	AJL907	M	C183658	8.30	670	424	2.27	268	260	193	<1.0	235	<1.0	<1.0	33.4	0.189	0.370	122			<0.015	<0.010	0.33	0.33	0.0033
RSEM-R6E-EOP	10/28/2021 15:40	AJL908	D	C183658	8.27	677	412	1.1	266	255	191	<1.0	233	<1.0	<1.0	32.0	0.192	0.379	116			<0.015	<0.010	0.31	0.31	<0.0030
RSEM-R6E-EOP	10/29/2021 11:10	AJL060	M	C183557	8.25	685	416	<1.0	275	258	191	<1.0	233	<1.0	<1.0	34.6	0.175	0.433	122			<0.015	<0.010	0.33	0.33	0.0030
RSEM-R6E-EOP	10/30/2021 11:50	AJO162	M	C184013	8.25	700	416	2.2	280	277	200	<1.0	244	<1.0	<1.0	35.4	0.098	0.464	120			<0.015	<0.010	0.39	0.39	<0.0030
RSEM-R6E-EOP	10/30/2021 12:00	AJO163	D	C184013	8.26	702	420	2.19	272	268	194	<1.0	237	<1.0	<1.0	35.2	0.114	0.444	119			<0.015	<0.010	0.30	0.30	0.0030
RSEM-R6E-EOP	10/31/2021 11:40	AJO160	M	C184012	8.27	717	428	1.32	272	271	204	<1.0	249	<1.0	<1.0	36.3	0.104	0.506	122			<0.015	<0.010	0.33	0.33	<0.0030
RSEM-R6E-EOP	11/1/2021 14:10	AJS226	M	C184600	8.22	722	416	1.3	275	258	209	<1.0	255	<1.0	<1.0	38.0	0.092	0.434	117			<0.015	<0.010	0.44	0.44	<0.0030
RSEM-R6E-EOP	11/1/2021 14:20	AJS227	D	C184600	8.24	724	424	1.0	278	257	209	<1.0	255	<1.0	<1.0	38.1	0.091	0.411	117			<0.015	<0.010	0.45	0.45	<0.0030
RSEM-R6E-EOP	11/2/2021 14:45	AJU789	M	C184881	8.19	744	424	<1.0	277	267	217	<1.0	265	<1.0	<1.0	40.0	0.102	0.558	121			<0.015	<0.010	0.56	0.56	0.0031
RSEM-R6E-EOP	11/3/2021 12:10	AJX282	M	C185315	8.23	731	432	<1.0	288	266	215	<1.0	262	<1.0	<1.0	41.6	0.178	0.536	121			0.021	<0.010	0.59	0.59	0.0031
RSEM-R6E-EOP	11/3/2021 12:20	AJX283	D	C185315	8.20	730	432	<1.0	294	270	214	<1.0	261	<1.0	<1.0	40.5	0.180	0.527	121			0.020	<0.010	0.56	0.56	0.0032
RSEM-R6E-EOP	11/4/2021 10:55	AKA061	M	C185756	8.15	727	416	<1.0	293	262	208	<1.0	254	<1.0	<1.0	41.1	0.173	0.535	119			<0.015	<0.010	0.67	0.67	<0.0030
RSEM-R6E-EOP	11/5/2021 11:05	AKA064	M	C185757	8.23	745	452	<1.0	294	275	218	<1.0	266	<1.0	<1.0	43.9	0.163	0.568	115			0.019	<0.010	0.81	0.81	<0.0030
RSEM-R6E-EOP	11/5/2021 11:15	AKA065	D	C185757	8.26	742	448	<0.96	292	268	219	<1.0	268	<1.0	<1.0	42.7	0.177	0.578	109			0.019	<0.010	0.77	0.77	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	11/6/2021 10:55	AKD992	M	C186250	8.04	772	464	<1.0	303	286	203	<1.0	248	<1.0	<1.0	55.5	0.177	0.788	118			0.027	0.018	0.79	0.81	0.0037
RSEM-R6E-EOP	11/7/2021 10:35	AKD997	M	C186252	8.15	818	496	<1.0	323	304	200	<1.0	244	<1.0	<1.0	65.3	0.191	1.02	124			0.033	0.024	0.84	0.87	0.0030
RSEM-R6E-EOP	11/7/2021 10:45	AKD998	D	C186252	8.20	819	488	<1.0	323	303	200	<1.0	245	<1.0	<1.0	65.0	0.192	0.972	124			0.030	0.024	0.85	0.87	0.0033
RSEM-R6E-EOP	11/8/2021 10:30	AKD974	M	C186247	8.21	872	520	1.43	341	323	193	<1.0	235	<1.0	<1.0	80.4	0.216	1.20	138			0.032	0.032	0.88	0.91	0.0032
RSEM-R6E-EOP	11/9/2021 11:30	AKJ862	M	C187047	8.22	875	544	<1.0	331	326	194	<1.0	236	<1.0	<1.0	71.0	0.225	1.18	144			0.032	0.029	1.4	1.5	<0.0030
RSEM-R6E-EOP	11/10/2021 12:00	AKN274	M	C187468	8.15	875	552	<1.0	346	323	204	<1.0	249	<1.0	<1.0	76.4	0.239	1.10	148			0.036	0.027	0.86	0.89	<0.0030
RSEM-R6E-EOP	11/11/2021 10:30	AKN227	M	C187460	8.05	869	552	<0.99	342	319	203	<1.0	248	<1.0	<1.0	74.0	0.237	1.06	147			0.035	0.025	0.83	0.85	<0.0030
RSEM-R6E-EOP	11/12/2021 10:30	AKN246	M	C187463	8.16	873	552	<0.99	335	317	209	<1.0	255	<1.0	<1.0	72.4	0.240	1.03	145			0.043	0.024	0.80	0.83	<0.0030
RSEM-R6E-EOP	11/13/2021 10:30	AKS759	M	C188237	8.12	877	512	<1.0	341	317	203	<1.0	248	<1.0	<1.0	72.6	0.233	1.06	145			0.063	0.026	0.90	0.93	<0.0030
RSEM-R6E-EOP	11/14/2021 10:30	AKS790	M	C188243	8.04	874	564	<0.99	349	323	205	<1.0	251	<1.0	<1.0	70.7	0.230	1.08	143			0.055	0.023	0.96	0.99	<0.0030
RSEM-R6E-EOP	11/15/2021 6:00	AKS804	M	C188248	8.08	875	536	<0.99	350	319	209	<1.0	255	<1.0	<1.0	69.5	0.243	1.06	145			0.067	0.024	0.83	0.85	0.0031
RSEM-R6E-EOP	11/16/2021 14:40	AKV418	M	C188704	8.13	874	548	<1.0	333	329	209	<1.0	255	<1.0	<1.0	69.9	0.253	1.06	146			0.069	0.026	0.91	0.93	<0.0030
RSEM-R6E-EOP	11/16/2021 14:50	AKV419	D	C188704	8.04	873	532	<0.99	334	333	207	<1.0	253	<1.0	<1.0	69.6	0.253	1.09	148			0.070	0.026	0.98	1.0	<0.0030
RSEM-R6E-EOP	11/17/2021 11:05	AKY309	M	C189131	8.16	874	548	<1.0	317	368	214	<1.0	261	<1.0	<1.0	88.7	0.261	0.986	162			0.078	0.024	0.95	0.98	<0.0030
RSEM-R6E-EOP	11/18/2021 10:30	AKZ640	M	C189345	8.14	871	544	1.1	308	351	214	<1.0	261	<1.0	<1.0	55.7	0.229	0.987	148			0.083	0.025	1.5	1.5	0.0033
RSEM-R6E-EOP	11/18/2021 10:40	AKZ641	D	C189345	8.10	866	556	<1.0	311	356	215	<1.0	262	<1.0	<1.0	67.4	0.232	1.01	145			0.078	0.025	0.98	1.0	0.0032
RSEM-R6E-EOP	11/19/2021 10:45	AKZ638	M	C189344	8.23	911	572	<1.0	331	345	220	<1.0	268	<1.0	<1.0	67.5	0.243	1.05	153			0.100	0.020	0.92	0.94	0.0030
RSEM-R6E-EOP	11/20/2021 10:10	ALR014	M	C192879	7.87	798	558	1.4	469	426	204	<1.0	249	<1.0	<1.0	60.4	0.245	0.957	150			0.101	0.025	0.81	0.83	<0.0030
RSEM-R6E-EOP	11/20/2021 10:20	ALR015	D	C192879	7.99	841	543	<1.0	516	572	226	<1.0	276	<1.0	<1.0	62.2	0.231	0.942	149			0.116	0.025	0.83	0.85	<0.0030
RSEM-R6E-EOP	11/21/2021 10:00	ALT347	M	C193212	7.94	819	525	<1.0	405	576	226	<1.0	276	<1.0	<1.0	55.6	0.232	0.849	138			0.113	0.025	0.94	0.97	<0.0030
RSEM-R6E-EOP	11/22/2021 10:35	ALQ579	M	C192775	8.04	834	512	<1.0	418	322	221	<1.0	269	<1.0	<1.0	50.9	0.238	0.932	134			0.137	0.025	0.92	0.94	<0.0030
RSEM-R6E-EOP	11/22/2021 10:45	ALQ580	D	C192775	8.16	834	520	<1.0	393	318	224	<1.0	273	<1.0	<1.0	50.3	0.231	0.909	133			0.128	0.022	0.82	0.84	<0.0030
RSEM-R6E-EOP	11/23/2021 10:05	ALN415	M	C192217	8.06	818	492	<1.0	398	471	223	<1.0	273	<1.0	<1.0	49.0	0.225	0.804	129			0.111	0.021	0.89	0.91	<0.0030
RSEM-R6E-EOP	11/24/2021 10:25	ALQ701	M	C192806	8.06	809	528	<1.0	312	325	226	<1.0	276	<1.0	<1.0	51.4	0.234	0.948	133			0.115	0.020	0.82	0.84	<0.0030
RSEM-R6E-EOP	11/24/2021 10:35	ALQ702	D	C192806	8.20	817	512	<1.0	311	325	227	<1.0	276	<1.0	<1.0	51.5	0.231	0.906	136			0.114	0.020	0.91	0.93	<0.0030
RSEM-R6E-EOP	11/25/2021	FJ2101334-001	M	FJ2101334	8.24	823	496	1.2	321	344	239	<1.0	292	<1.0	<1.0	51.7	0.229	0.783	134			0.0995	0.0164	0.794	0.810	<0.0010
RSEM-R6E-EOP	11/26/2021 10:00	FJ2101337-001	M	FJ2101337	8.20	836	530	1.2	346	336		<1.0	304	<1.0	<1.0	56.9	0.277	0.780	142			0.109	0.0182	0.820	0.838	<0.0010
RSEM-R6E-EOP	11/26/2021 10:10	FJ2101337-002	D	FJ2101337	8.19	838	512	1.2	343	343		<1.0	303	<1.0	<1.0	56.5	0.262	0.778	142			0.108	0.0177	0.808	0.826	<0.0010
RSEM-R6E-EOP	11/27/2021 10:30	FJ2101340-001	M	FJ2101340	8.20	867	546	<1.0	367	345	251	<1.0	306	<1.0	<1.0	60.0	0.274	0.850	152			0.124	0.0212	0.806	0.827	<0.0010
RSEM-R6E-EOP	11/28/2021 10:00	FJ2101338-001	M	FJ2101338	8.22	889	552	<1.0	352	354	248	<1.0	303	<1.0	<1.0	60.4	0.276	0.840	161			0.126	0.0237	0.884	0.908	<0.0010
RSEM-R6E-EOP	11/28/2021 10:10	FJ2101338-002	D	FJ2101338	8.22	882	590	<1.0	362	346	248	<1.0	303	<1.0	<1.0	60.3	0.276	0.834	161			0.127	0.0238	0.879	0.903	<0.0010
RSEM-R6E-EOP	11/29/2021 9:45	FJ2101339-001	M	FJ2101339	8.18	900	568	<1.0	372	371		<1.0	317	<1.0	<1.0	59.8	0.280	0.804	167			0.122	0.0238	0.916	0.940	<0.0010
RSEM-R6E-EOP	11/30/2021 12:00	FJ2101361-001	M	FJ2101361	8.08	952	573	<1.0	352	382	266	<1.0	324	<1.0	<1.0	57.6	0.321	0.774	175			0.104	0.0189	0.994	1.01	<0.0010
RSEM-R6E-EOP	12/1/2021 12:00	FJ2101362-001	M	FJ2101362	8.08	972	546	<1.0	394	374	266	<1.0	325	<1.0	<1.0	55.6	0.303	0.750	176			0.107	0.0202	1.05	1.07	0.0023
RSEM-R6E-EOP	12/2/2021 11:30	FJ2101375-001	M	FJ2101375	8.09		588	1.2	377	345	258	<1.0	315	<1.0	<1.0	51.8	0.272	0.677	191			0.0970	0.0158	1.08	1.10	0.0018
RSEM-R6E-EOP	12/3/2021 11:00	FJ2101374-001	M	FJ2101374	8.07		710	2.6	403	355	264	<1.0	322	<1.0	<1.0	52.8	0.267	0.681	205			0.0628	0.0174	0.953	0.970	0.0020
RSEM-R6E-EOP	12/4/2021 11:00	FJ2101385-001	M	FJ2101385	8.10	1090	618	1.2	411	429	281	<1.0	342	<1.0	<1.0	54.5	0.306	0.752	218			0.0565	0.0213	1.02	1.04	0.0015
RSEM-R6E-EOP	12/8/2021 11:00	FJ2101419-001	M	FJ2101419	8.19	1090	674	<1.0	447	448	312	<1.0	381	<1.0	<1.0	55.3	0.246	0.582	227			0.0389	0.0192	0.921	0.940	0.0011
RSEM-R6E-EOP	12/9/2021 10:05	FJ2101442-001	M	FJ2101442	8.07	1050	660	<1.0	464	410	272	<1.0	332	<1.0	<1.0	53.3	0.267	0.691	230			0.0616	0.0169	0.875	0.892	0.0014
RSEM-R6E-EOP	12/9/2021 10:15	FJ2101442-002	D	FJ2101442	8.09	1050	668	<1.0	451	435	274	<1.0	334	<1.0	<1.0	53.3	0.266	0.688	230			0.0631	0.0171	0.872	0.889	0.0014
RSEM-R6E-EOP	12/10/2021 10:45	FJ2101436-001	M	FJ2101436	8.10	1040	703	<1.0	456	426	271	<1.0	330	<1.0	<1.0	54.1	0.306	0.701	225			0.0540	0.0158	0.873	0.889	0.0014
RSEM-R6E-EOP	12/11/2021 13:40	FJ2101439-001	M	FJ2101439	8.06	1050	680	<1.0	457	432	272	<1.0	332	<1.0	<1.0	52.8	0.326	0.760	238			0.0665	0.0132	0.827	0.840	0.0016
RSEM-R6E-EOP	12/11/2021 13:50	FJ2101439-002	D	FJ2101439	8.06	1050	734	<1.0	456	428	281	<1.0	343	<1.0	<1.0	51.4	0.287	0.752	232			0.0712	0.0126	0.814	0.827	0.0014
RSEM-R6-EP-US-SD	3/17/2021 13:35	ZM7316	M	C117752	7.67	632	395	1720	246	220	61.0	<1.0	74.5	<1.0	<1.0	69.3	0.412	0.453	146			0.480	0.060	0.56	0.62	<0.0030
RSEM-R6-EP-US-SD	5/19/2021 11:30	ZV3571	M	C134016	8.38	784	624	29.1	272	259	181	2.8	213	3.3	<1.0	55.4	0.269	0.784	128			0.119	0.013	0.93	0.94	0.0031
RSEM-R6-EP-US-SD	7/20/2021 13:55	ACH817	M	C152456	7.63	1780	725	19300	4840	776	104	<1.0	127	<1.0	<1.0	260	0.637	4.28	420			0.400	0.029	0.64	0.67	<0.0030
RSEM-R6E-SP	2/3/2021 14:30	ZG9146	M	C107662	8.27	772	316	<1.0	266	279	262	<1.0	320	<1.0	<1.0	25.8	0.225	0.403	118			0.068	<0.010	0.379	0.379	<0.0030
RSEM-R6E-SP	2/3/2021 14:40	ZG9147	D	C107662	8.13	776	308	1.0	276	279	259	<1.0	316	<1.0	<1.0	25.7	0.220	0.402	116			0.071	<0.010	0.385	0.385	<0.0030
RSEM-R6E-SP	2/4/2021 13:30	ZH1010	M	C107961	8.20	775	460	2.2	272	281	259	<1.0	317	<1.0	<1.0	25.8	0.235	0.417	116			0.047	<0.010	0.381	0.381	0.0034
RSEM-R6E-SP	2/5/2021 13:50	ZH1013	M	C107964	8.24	786	496	<1.0	293	299	268	<1.0	327	<1.0	<1.0	26.4	0.225	0.402	118			0.039	<0.010	0.389	0.389	0.0038
RSEM-R6E-SP	2/8/2021 10:30	ZH3062	M	C108279	7.95	799	520	3.9	297	283	263	<1.0	321	<1.0	<1.0	24.1	0.231	0.417	121			0.044	<0.010	0.41	0.41	0.0059
RSEM-R6E-SP	2/16/2021 14:00	ZI2028	M	C110128	8.16	818	500	2.3	295	301	268	<1.0	328	<1.0	<1.0	28.1	0.235	0.417	125			0.138	<0.010	0.38	0.38	0.0035
RSEM-R6E-SP	2/26/2021 14:10	ZJ8523	M	C112618	7.12	644	377	3.3	203	214	231	<1.0	282	<1.0	<1.0	37.8	0.236	0.484	90.7			0.063	0.019	0.49	0.51	0.0032
RSEM-R6E-SP	2/27/2021 13:00	ZK1992	M	C113050	7.11	663	348	2.3	212	210	172	<1.0	210	<1.0	<1.0	46.9	0.243	0.512	92.0			0.179	0.024	0.57	0.59	<0.0030
RSEM-R6E-SP	3/12/2021 12:35	ZM0346	M	C116306	7.63	580	345	<1.0	204	203	134	<1.0	163	<1.0	<1.0	26.6	0.193	0.297	114			0.040	0.016	0.26	0.28	<0.0030
RSEM-R6E-SP	3/14/2021 12:45	ZM2397	M	C116750	8.03	562	376	1.5	188	197	128	<1.0	156	<1.0	<1.0	28.1	0.187	0.282	102			0.077	0.013	0.23	0.24	<0.0030
RSEM-R6E-SP	3/25/2021 15:30	ZN6324	M	C119610	7.52	444	272	1.7	142	138	77.1	<1.0	94.1	<1.0	<1.0	47.8	0.206	0.469	70.7			0.186	0.030	0.38	0.41	0.0036
RSEM-R6E-SP	6/1/2021 11:15	ZX3970	M	C137816	7.44	1120	708	2.1	343	328	93.2	<1.0	114	<1.0	<1.0	220	0.232	3.37	139			0.044	<0.010	<0.10	<0.10	<0.0030
RSEM-R6E-SP	6/2/2021 12:55	ZX5270	M	C138096	7.44	1110	648	1.9	330	325	75.0	<1.0	91.5	<1.0	<1.0	221	0.235	3.20	139			0.030	<0.010	<0.10	<0.10	0.0030
RSEM-R6E-SP	6/3/2021 11:50	ZX7151	M	C138404	7.06	1100	704	<1.0	319	319	86.5	<1.0	106	<1.0	<1.0	219	0.235	3.63	136			0.030	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-SP	6/4/2021 11:20	ZX6906	M	C138357	6.76	1090	696	2.5	320	317	37.6	<1.0	45.8	<1.0	<1.0	218	0.211	3.15	142			0.035	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-SP	6/12/2021 10:40	ZZ1988	M	C141056	7.98	972	488	1.1	289	286	70.8	<1.0	86.4	<1.0	<1.0	162	0.220	2.15	155			0.058	<0.010	0.078	0.078	0.0033
RSEM-R6E-SP	6/13/2021 14:30	ZZ1993	M	C141057	7.91	971	616	<1.0	292	281	66.0	<1.0	80.5	<1.0	<1.0	160	0.226	1.96	157			0.071	<0.010	<0.010	<0.010	0.0030
RSEM-R6E-SP	6/14/2021 10:55	ZZ2009	M	C141059	8.01	961	628	<1.0	291	283	70.3	<1.0	85.8	<1.0	<1.0	162	0.221	2.17	155			0.060	<0.010	<0.010	<0.010	0.0031
RSEM-R6E-SP	6/22/2021 13:40	AAL815	M	C144319	8.43	891	432	1.4	262	259	45.0	<1.0	54.9	<1.0	<1.0	159	0.207	2.21	168			0.025	<0.010	0.036	0.036	<0.0030
RSEM-R6E-SP	6/23/2021 15:00	AAO112	M	C144722	7.83	912	572	1.4	281	249	48.0	<1.0	58.5	<1.0	<1.0	157	0.225	1.82	166			0.027	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	6/24/2021 15:00	AAQ177	M	C144970	7.34	903	540	1.8	426	229	50.1	<1.0	61.2	<1.0	<1.0	156	0.229	2.34	164			0.026	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	6/25/2021 13:40	AAP489	M	C144894	7.57	914	588	1.3	395	229	53.5	<1.0	65.2	<1.0	<1.0	159	0.215	2.35	170			0.022	<0.010	<0.010	<0.010	0.0030
RSEM-R6E-SP	6/26/2021 14:50	AAU432	M	C145599	7.55	902	548	<1.0	267	295	47.0	<1.0	57.3	<1.0	<1.0	159	0.242	2.29	166			0.025	<0.010	<0.010	<0.010	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	6/27/2021 13:35	AAU319	M	C145583	7.40	919	540	2.0	260	275	65.1	<1.0	79.4	<1.0	<1.0	160	0.216	2.21	168			0.028	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	6/28/2021 14:00	AAX136	M	C146134	7.56	921	548	<1.0	267	325	79.4	<1.0	96.9	<1.0	<1.0	155	0.215	2.25	167			0.027	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	6/29/2021 15:30	AAZ027	M	C146532	7.55	912	624	1.9	280	267	60.9	<1.0	74.3	<1.0	<1.0	159	0.235	2.24	175			0.029	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-SP	6/30/2021 11:20	AAZ002	M	C146528	7.57	922	600	<1.0	291	275	81.9	<1.0	99.9	<1.0	<1.0	157	0.241	2.20	173			0.026	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-SP	7/1/2021 15:40	ABB251	M	C146903	7.47	922	596	1.3	290	267	72.5	<1.0	88.4	<1.0	<1.0	157	0.237	2.20	175			0.025	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/2/2021 12:25	ABB257	M	C146905	7.71	916	612	1.1	286	300	87.1	<1.0	106	<1.0	<1.0	156	0.235	2.20	171			0.024	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/3/2021 9:25	ABE023	M	C147272	7.52	915	592	1.0	273	304	83.3	<1.0	102	<1.0	<1.0	158	0.235	2.23	174			0.019	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/4/2021 14:00	ABD994	M	C147267	7.92	918	480	<1.0	279	275	74.2	<1.0	90.6	<1.0	<1.0	152	0.245	1.94	174			0.019	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/5/2021 9:50	ABG200	M	C147674	7.83	911	544	<1.0	278	285	81.2	<1.0	99.0	<1.0	<1.0	147	0.259	2.23	169			0.065	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/6/2021 10:40	ABJ178	M	C148228	7.86	904	548	3.2	252	264	64.2	<1.0	78.4	<1.0	<1.0	145	0.244	2.20	170			0.025	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/7/2021 12:00	ABK531	M	C148516	8.34	927	516	2.7	251	254	70.3	<1.0	85.8	<1.0	<1.0	149	0.209	2.22	168			0.016	<0.010	0.22	0.22	<0.0030
RSEM-R6E-SP	7/8/2021 12:00	ABM760	M	C148925	8.00	918	496	2.9	251	257	66.5	<1.0	81.1	<1.0	<1.0	147	0.234	2.00	174			0.036	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-SP	7/9/2021 10:10	ABM747	M	C148923	8.12	903	432	1.9	249	254	60.6	<1.0	73.9	<1.0	<1.0	147	0.259	2.16	172			0.025	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-SP	7/10/2021 10:30	ABP527	M	C149429	6.98	900	500	1.8	249	252	49.2	<1.0	60.0	<1.0	<1.0	152	0.214	2.12	179			<0.015	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/11/2021 10:30	ABP672	M	C149459	7.31	896	472	4.3	249	253	50.3	<1.0	61.4	<1.0	<1.0	150	0.209	2.12	177			<0.015	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/12/2021 5:00	ABP853	M	C149486	7.70	913	452	2.1	241	247	74.0	<1.0	90.3	<1.0	<1.0	149	0.234	2.14	155			<0.015	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/15/2021 15:55	ABY387	M	C150960	6.70	881	524	<1.0	225	225	70.1	<1.0	85.5	<1.0	<1.0	130	0.258	1.86	170			<0.015	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/16/2021 13:10	ABZ186	M	C151029	6.90	905	536	2.1	233	240	80.1	<1.0	97.7	<1.0	<1.0	120	0.258	1.98	170			0.019	<0.010	<0.010	<0.010	<0.0030
RSEM-R6E-SP	7/29/2021 12:20	ACY651	M	C155287	7.35	952	576	2.4	339	324	93.5	<1.0	114	<1.0	<1.0	110	0.275	1.81	220			0.024	0.020	0.10	0.12	<0.0030
RSEM-R6E-SP	7/30/2021 10:20	ACY653	M	C155288	7.25	937	596	1.3	313	348	77.0	<1.0	93.9	<1.0	<1.0	100	0.277	1.75	210			0.091	0.016	<0.10	0.11	0.0030
RSEM-R6E-SP	7/31/2021 12:20	ADA373	M	C155508	6.84	894	76	2.0	310	320	44.0	<1.0	53.6	<1.0	<1.0	124	0.310	1.76	253			<0.015	0.0101	0.024	0.034	<0.0030
RSEM-R6E-SP	8/1/2021 11:30	ADC691	M	C155924	6.97	900	564	2.5	316	317	53.4	<1.0	65.2	<1.0	<1.0	117	0.296	1.76	231			<0.015	<0.010	<0.050	<0.050	<0.0030
RSEM-R6E-SP	12/5/2021 13:00	FJ2101386-001	M	FJ2101386	8.08	1040	632	1.2	392	416	302	<1.0	369	<1.0	<1.0	64.2	0.308	0.950	173			0.0677	0.0180	1.03	1.05	<0.0010
RSEM-R6E-SP	12/12/2021 11:55	FJ2101434-001	M	FJ2101434	8.15	1020	663	<1.0	451	430	309	<1.0	377	<1.0	<1.0	61.2	0.287	0.823	196			0.0790	0.0171	1.02	1.04	<0.0010
RSEM-R6E-SP	12/15/2021 14:30	FJ2101472-002	M	FJ2101472	8.17	1140	714	<1.0	484	511	328	<1.0	401	<1.0	<1.0	57.9	0.302	0.729	244			0.0315	0.0165	0.870	0.886	<0.0010
RSEM-R6E-SP	12/22/2021 7:00	FJ2101508-003	M	FJ2101508	7.97	1150	735	<1.0	509	503	342	<1.0	417	<1.0	<1.0	68.7	0.286	0.832	246			0.0793	0.0126	1.02	1.03	<0.0010
RSEM-R6E-SP-US	5/27/2021 15:20	ZW4833	M	C136103	8.06	1020	654	9.2	342	321	250	<1.0	305	<1.0	<1.0	82.1	0.340	1.16	186			0.493	0.0193	0.537	0.556	<0.0030
RSEM-R6E-SP-US	8/22/2021 14:00	AEI415	M	C161433	7.33	1170	670	2210	905	505	89.5	<1.0	109	<1.0	<1.0	189	0.519	2.98	196			0.437	0.056	1.6	1.7	0.0033
RSEM-R6W-EOP	1/1/2021 14:50	ZC6628	M	C100093	7.96	1380	846	3.6	193	207	138	<1.0	168	<1.0	<1.0	59.9	0.260	0.844	434			0.413	0.0358	0.571	0.607	<0.0030
RSEM-R6W-EOP	1/2/2021 15:55	ZC7220	M	C100230	6.85	1330	864	1.4	199	203	182	<1.0	222	<1.0	<1.0	62.0	0.228	0.838	432			0.442	0.036	0.574	0.609	0.0036
RSEM-R6W-EOP	1/3/2021 8:35	ZC7223	M	C100232	6.86	1340	848	1.3	199	206	181	<1.0	221	<1.0	<1.0	61.8	0.224	0.853	428			0.434	0.032	0.553	0.586	0.0034
RSEM-R6W-EOP	1/4/2021 18:20	ZC8854	M	C100618	6.76	1290	840	2.4	191	199	180	<1.0	220	<1.0	<1.0	59.7	0.211	0.793	410			0.083	0.023	0.472	0.496	<0.0030
RSEM-R6W-EOP	1/5/2021 11:55	ZC8849	M	C100616	6.69	1260	856	1.9	187	195	179	<1.0	218	<1.0	<1.0	59.7	0.209	0.804	404			0.085	0.022	0.455	0.477	<0.0030
RSEM-R6W-EOP	1/6/2021 13:40	ZD1295	M	C101203	6.89	1260	744	3.1	188	189	166	<1.0	202	<1.0	<1.0	57.6	0.219	0.768	405			0.401	0.012	0.373	0.385	<0.0030
RSEM-R6W-EOP	1/7/2021 13:10	ZD2460	M	C101487	6.77	1250	848	3.5	194	199	179	<1.0	219	<1.0	<1.0	58.5	0.218	0.811	402			0.091	0.025	0.454	0.480	<0.0030
RSEM-R6W-EOP	1/8/2021 13:20	ZD2450	M	C101485	6.84	1230	792	2.7	190	198	181	<1.0	221	<1.0	<1.0	60.6	0.214	0.792	385			0.348	0.024	0.446	0.471	<0.0030
RSEM-R6W-EOP	1/9/2021 14:20	ZD4127	M	C101792	7.06	1240	752	2.9	180	196	158	<1.0	193	<1.0	<1.0	51.2	0.242	0.815	399			0.415	0.028	0.485	0.513	<0.0030
RSEM-R6W-EOP	1/10/2021 13:00	ZD4124	M	C101791	7.05	1240	760	2.4	179	194	166	<1.0	203	<1.0	<1.0	53.5	0.245	0.813	399			0.421	0.027	0.484	0.511	<0.0030
RSEM-R6W-EOP	1/11/2021 14:20	ZD5675	M	C102082	7.03	1260	724	3.5	180	188	163	<1.0	199	<1.0	<1.0	52.9	0.248	0.832	409			0.435	0.023	0.466	0.489	0.0033
RSEM-R6W-EOP	1/12/2021 13:20	ZD8127	M	C102522	6.73	1230	772	2.5	188	178	161	<1.0	196	<1.0	<1.0	53.1	0.253	0.797	396			0.407	0.023	0.430	0.453	<0.0030
RSEM-R6W-EOP	1/13/2021 13:50	ZD9242	M	C102779	6.81	1260	736	3.4	188	188	180	<1.0	220	<1.0	<1.0	54.7	0.238	0.785	393			0.415	0.027	0.459	0.486	0.0032
RSEM-R6W-EOP	1/14/2021 10:30	ZD9431	M	C102840	7.10	1260	692	2.9	183	184	155	<1.0	189	<1.0	<1.0	53.7	0.240	0.783	390			0.419	0.029	0.484	0.513	0.0038
RSEM-R6W-EOP	1/15/2021 13:15	ZE0829	M	C103125	7.06	1230	700	3.7	169	177	182	<1.0	222	<1.0	<1.0	52.1	0.235	0.770	376			0.418	0.030	0.464	0.494	<0.0030
RSEM-R6W-EOP	1/16/2021 11:05	ZE2984	M	C103538	7.05	1170	700	3.3	167	169	152	<1.0	185	<1.0	<1.0	53.7	0.222	0.774	358			0.395	0.038	0.476	0.513	<0.0030
RSEM-R6W-EOP	1/17/2021 13:40	ZE3023	M	C103542	6.80	1160	664	3.7	165	168	157	<1.0	192	<1.0	<1.0	55.5	0.219	0.747	353			0.383	0.038	0.471	0.509	<0.0030
RSEM-R6W-EOP	1/18/2021 10:30	ZE2901	M	C103523	6.93	1140	680	2.2	167	167	153	<1.0	186	<1.0	<1.0	54.9	0.218	0.730	354			0.363	0.040	0.471	0.510	<0.0030
RSEM-R6W-EOP	1/19/2021 12:30	ZE5959	M	C104146	7.05	1210	620	4.7	162	174	154	<1.0	188	<1.0	<1.0	53.1	0.245	0.741	352			0.363	0.029	0.423	0.452	<0.0030
RSEM-R6W-EOP	1/20/2021 12:30	ZE6018	M	C104156	7.12	1230	680	3.1	171	178	157	<1.0	191	<1.0	<1.0	55.6	0.252	0.748	364			0.112	0.023	0.423	0.446	0.0040
RSEM-R6W-EOP	1/21/2021 15:30	ZE9302	M	C104705	7.02	1260	724	2.6	177	176	164	<1.0	200	<1.0	<1.0	54.9	0.262	0.753	365			0.385	0.041	0.55	0.60	<0.0030
RSEM-R6W-EOP	1/22/2021 13:10	ZE9299	M	C104704	7.30	1290	720	2.5	190	189	171	<1.0	208	<1.0	<1.0	48.6	0.271	0.754	381			0.395	0.045	0.58	0.62	<0.0030
RSEM-R6W-EOP	1/23/2021 15:55	ZF1597	M	C105086	7.16	1310	764	3.4	195	199	210	<1.0	256	<1.0	<1.0	59.7	0.274	0.809	382			0.386	0.046	0.508	0.553	0.0030
RSEM-R6W-EOP	1/24/2021 13:55	ZF1582	M	C105082	7.38	1320	776	3.9	197	204	207	<1.0	252	<1.0	<1.0	60.8	0.275	0.787	405			0.391	0.048	0.526	0.574	<0.0030
RSEM-R6W-EOP	1/25/2021 10:00	ZF1641	M	C105090	7.21	1380	820	2.6	214	217	211	<1.0	257	<1.0	<1.0	61.2	0.287	0.808	437			0.110	0.047	0.575	0.621	<0.0030
RSEM-R6W-EOP	2/6/2021 13:10	ZH3137	M	C108285	8.04	1300	924	2.9	229	213	157	<1.0	192	<1.0	<1.0	60.6	0.273	0.800	424			0.089	0.054	0.67	0.72	0.0031
RSEM-R6W-EOP	2/7/2021 13:25	ZH3207	M	C108294	8.05	1240	816	2.3	218	205	159	<1.0	194	<1.0	<1.0	54.3	0.252	0.738	380			0.334	0.053	0.62	0.68	<0.0030
RSEM-R6W-EOP	2/7/2021 13:35	ZH3208	D	C108294	8.09	1250	816	2.6	217	205	159	<1.0	193	<1.0	<1.0	51.0	0.255	0.749	377			0.085	0.053	0.64	0.70	<0.0030
RSEM-R6W-EOP	2/8/2021 10:20	ZH3060	M	C108279	8.12	1190	764	3.7	208	198	162	<1.0	197	<1.0	<1.0	53.0	0.242	0.697	359			0.075	0.050	0.62	0.67	0.0031
RSEM-R6W-EOP	2/9/2021 15:50	ZH7147	M	C109072	8.18	1160	784	4.5	198	200	169	<1.0	207	<1.0	<1.0	48.2	0.239	0.677	338			0.293	0.046	0.491	0.537	<0.0030
RSEM-R6W-EOP	2/10/2021 13:10	ZH7144	M	C109071	8.08	1120	776	4.0	196	195	167	<1.0	204	<1.0	<1.0	45.7	0.225	0.639	321			0.286	0.044	0.474	0.518	0.0034
RSEM-R6W-EOP	2/11/2021 17:00	ZH8475	M	C109352	7.17	1130	684	2.2	189	186	223	<1.0	272	<1.0	<1.0	45.7	0.229	0.602	311			0.122	0.042	0.53	0.57	0.0031
RSEM-R6W-EOP	2/12/2021 10:50	ZH8473	M	C109351	7.04	1100	632	2.5	191	184	229	<1.0	280	<1.0	<1.0	42.1	0.206	0.579	305			0.111	0.040	0.52	0.56	0.0032
RSEM-R6W-EOP	2/13/2021 13:00	ZH8990	M	C109471	7.67	1040	618	3.6	180	179	160	<1.0	196	<1.0	<1.0	42.3	0.190	0.575	291			0.235	0.0374	0.468	0.506	<0.0030
RSEM-R6W-EOP	2/13/2021 13:10	ZH8991	D	C109471	7.84	1030	632	3.6	180	178	159	<1.0	194	<1.0	<1.0	36.8	0.190	0.557	276			0.241	0.0375	0.469	0.506	0.0053
RSEM-R6W-EOP	2/14/2021 10:00	ZI0121	M	C109675	7.69	1060	644	3.8	187	181	162	<1.0	198	<1.0	<1.0	43.0	0.204	0.571	296			0.241	0.037	0.456	0.493	<0.0030
RSEM-R6W-EOP	2/15/2021 10:00	ZI0119	M	C109675	7.62	1050	648	3.5	181	177	163	<1.0	199	<1.0	<1.0	40.9	0.195	0.561	293			0.053	0.038	0.451	0.489	<0.0030
RSEM-R6W-EOP	2/16/2021 13:40	ZI2026	M	C110128	7.64	1020	636	4.5	172	182	159	<1.0	194	<1.0	<1.0	42.4	0.198	0.550	294			0.212	0.039	0.50	0.53	<0.0030
RSEM-R6W-EOP	2/16/2021 13:50	ZI2027	D	C110128	7.93	1020	700	4.9	169	182	155	<1.0	189	<1.0	<1.0	37.3	0.194	0.539	275			0.216	0.039	0.50	0.54	<0.0030
RSEM-R6W-EOP	2/17/2021 13:15	ZI1809	M	C110059	6.82	1080	624	5.9	168	174	192	<1.0	234	<1.0	<1.0	40.3	0.194	0.553	277			0.207	0.042	0.49	0.53	0.0032
RSEM-R6W-EOP	2/18/2021 13:50	ZI6453	M	C110759	6.78	1080	576	4.9	159	168	214	<1.0	261	<1.0	<1.0	39.4	0.204	0.558	276			0.061	0.046	0.47	0.51	0.0032

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	2/18/2021 14:00	ZI6454	D	C110759	6.78	1080	564	5.5	164	167	188	<1.0	229	<1.0	<1.0	40.2	0.192	0.552	281			0.206	0.048	0.47	0.52	0.0033
RSEM-R6W-EOP	2/19/2021 12:55	ZI6371	M	C110747	7.44	995	540	4.9	164	164	154	<1.0	187	<1.0	<1.0	43.4	0.176	0.569	274			0.192	0.038	0.42	0.46	<0.0030
RSEM-R6W-EOP	2/20/2021 11:10	ZI8653	M	C111165	7.48	983	576	3.5	156	156	146	<1.0	178	<1.0	<1.0	42.5	0.170	0.573	278			0.187	0.036	0.42	0.46	
RSEM-R6W-EOP	2/20/2021 11:20	ZI8654	D	C111165	7.50	982	480	2.9	159	156	151	<1.0	184	<1.0	<1.0	42.7	0.170	0.572	284			0.183	0.035	0.43	0.46	
RSEM-R6W-EOP	2/21/2021 13:40	ZI8311	M	C111114	7.61	982	524	3.9	160	163	149	<1.0	182	<1.0	<1.0	42.3	0.169	0.575	275			0.189	0.035	0.42	0.46	<0.0030
RSEM-R6W-EOP	2/22/2021 15:40	ZJ0344	M	C111442	6.91	1070	580	4.3	163	179	185	<1.0	226	<1.0	<1.0	44.9	0.206	0.616	310			0.051	0.036	0.49	0.52	<0.0030
RSEM-R6W-EOP	2/25/2021 12:30	ZJ8556	M	C112624	6.85	1030	632	4.5	158	160	183	<1.0	223	<1.0	<1.0	44.9	0.222	0.609	294			0.071	0.039	0.51	0.55	<0.0030
RSEM-R6W-EOP	2/26/2021 13:50	ZJ8521	M	C112618	6.86	1070	670	3.8	162	167	184	<1.0	224	<1.0	<1.0	47.6	0.205	0.643	319			0.052	0.046	0.54	0.58	0.0038
RSEM-R6W-EOP	2/26/2021 14:00	ZJ8522	D	C112618	6.88	1070	594	4.1	163	166	180	<1.0	219	<1.0	<1.0	48.9	0.206	0.658	322			0.235	0.046	0.53	0.58	0.0034
RSEM-R6W-EOP	2/27/2021 12:30	ZK1993	M	C113050	7.78	1110	628	4.5	156	159	133	<1.0	162	<1.0	<1.0	48.2	0.233	0.685	326			0.257	0.055	0.60	0.66	0.0030
RSEM-R6W-EOP	2/28/2021 12:40	ZK2231	M	C113095	7.01	1120	696	5.2	158	157	180	<1.0	219	<1.0	<1.0	53.3	0.251	0.719	344			0.278	0.061	0.69	0.75	<0.0030
RSEM-R6W-EOP	2/28/2021 12:50	ZK2232	D	C113095	6.67	1140	688	6.0	157	160	145	<1.0	177	<1.0	<1.0	52.7	0.223	0.723	342			0.274	0.061	0.64	0.70	<0.0030
RSEM-R6W-EOP	3/1/2021 9:40	ZK1995	M	C113051	7.25	766	472	17.8	198	200	156	<1.0	190	<1.0	<1.0	30.7	0.161	0.348	205			0.141	0.027	0.27	0.29	<0.0030
RSEM-R6W-EOP	3/2/2021 15:30	ZK8063	M	C114225	7.05	651	368	21.5	209	214	160	<1.0	196	<1.0	<1.0	20.4	0.142	0.220	173			0.107	0.014	0.127	0.142	<0.0030
RSEM-R6W-EOP	3/3/2021 15:40	ZK8061	M	C114224	7.25	664	324	27.7	218	223	178	<1.0	218	<1.0	<1.0	19.6	0.145	0.206	177			0.059	0.015	0.10	0.12	<0.0030
RSEM-R6W-EOP	3/4/2021 14:10	ZL0408	M	C114582	7.95	520	312	21.6	204	191	134	<1.0	163	<1.0	<1.0	11.7	0.138	0.126	115			0.077	0.011	0.066	0.077	<0.0030
RSEM-R6W-EOP	3/5/2021 12:30	ZL0414	M	C114584	7.97	661	372	29.1	211	201	138	<1.0	169	<1.0	<1.0	19.2	0.165	0.220	172			0.111	0.017	0.086	0.10	<0.0030
RSEM-R6W-EOP	3/6/2021 9:40	ZL3536	M	C115040	8.04	650	399	16.5	214	215	143	<1.0	174	<1.0	<1.0	19.2	0.160	0.196	170			0.106	0.013	0.100	0.113	<0.0030
RSEM-R6W-EOP	3/6/2021 9:50	ZL3534	D	C115040	7.78	662	406	18.0	213	216	141	<1.0	172	<1.0	<1.0	19.3	0.157	0.403	176			0.116	0.013	0.112	0.126	<0.0030
RSEM-R6W-EOP	3/8/2021 12:10	ZL3598	M	C115055	7.99	573	314	12.5	204	201	140	<1.0	171	<1.0	<1.0	15.0	0.158	0.159	139			0.104	<0.010	0.089	0.089	<0.0030
RSEM-R6W-EOP	3/9/2021 14:20	ZL6923	M	C115720	7.82	548	357	16.9	192	195	136	<1.0	166	<1.0	<1.0	15.8	0.144	0.143	138			0.097	0.014	0.074	0.088	<0.0030
RSEM-R6W-EOP	3/9/2021 14:30	ZL6924	D	C115720	7.99	550	358	16.5	197	193	136	<1.0	166	<1.0	<1.0	15.4	0.144	0.151	133			0.104	0.014	0.073	0.086	<0.0030
RSEM-R6W-EOP	3/10/2021 12:55	ZL8188	M	C115987	7.99	572	369	7.5	198	194	135	<1.0	165	<1.0	<1.0	16.8	0.159	0.169	138			0.035	0.015	0.081	0.096	<0.0030
RSEM-R6W-EOP	3/11/2021 12:30	ZL8466	M	C116050	7.91	577	308	6.3	194	196	136	<1.0	166	<1.0	<1.0	15.5	0.161	0.176	145			0.035	0.014	0.092	0.11	<0.0030
RSEM-R6W-EOP	3/11/2021 12:40	ZL8467	D	C116050	8.08	600	344	7.3	192	195	129	<1.0	157	<1.0	<1.0	25.7	0.147	0.179	140			0.097	0.015	0.096	0.11	<0.0030
RSEM-R6W-EOP	3/12/2021 12:25	ZM0345	M	C116306	7.86	584	344	2.5	194	199	135	<1.0	164	<1.0	<1.0	15.3	0.170	0.176	136			0.035	0.015	0.086	0.10	<0.0030
RSEM-R6W-EOP	3/13/2021 13:30	ZM2419	M	C116756	8.07	583	363	8.1	195	201	136	<1.0	166	<1.0	<1.0	15.8	0.165	0.188	164			0.043	0.016	0.11	0.12	<0.0030
RSEM-R6W-EOP	3/13/2021 13:40	ZM2420	D	C116756	7.76	582	362	5.6	195	197	134	<1.0	163	<1.0	<1.0	16.2	0.177	0.188	144			0.098	0.016	0.11	0.12	<0.0030
RSEM-R6W-EOP	3/14/2021 11:55	ZM2398	M	C116750	7.93	584	452	19.5	189	199	134	<1.0	164	<1.0	<1.0	17.3	0.168	0.196	155			0.053	0.016	0.11	0.13	0.0062
RSEM-R6W-EOP	3/15/2021 12:00	ZM4115	M	C117045	8.11	586	355	18.2	195	183	131	<1.0	160	<1.0	<1.0	17.1	0.175	0.203	156			0.097	0.014	0.068	0.082	<0.0030
RSEM-R6W-EOP	3/16/2021 13:40	ZM5657	M	C117434	7.93	586	340	20.7	186	187	134	<1.0	163	<1.0	<1.0	17.4	0.174	0.206	149			0.049	0.014	0.10	0.11	0.0030
RSEM-R6W-EOP	3/17/2021 14:30	ZM7319	M	C117752	8.13	555	354	10.1	171	172	122	<1.0	148	<1.0	<1.0	16.8	0.144	0.202	137			0.096	0.014	0.085	0.099	<0.0030
RSEM-R6W-EOP	3/18/2021 12:50	ZM8874	M	C118063	7.94	550	363	11.4	171	171	120	<1.0	147	<1.0	<1.0	16.3	0.156	0.197	134			0.059	0.019	0.076	0.095	<0.0030
RSEM-R6W-EOP	3/19/2021 13:25	ZM8866	M	C118061	7.96	549	334	14.5	173	170	125	<1.0	152	<1.0	<1.0	16.0	0.161	0.196	132			0.125	0.016	0.073	0.089	<0.0030
RSEM-R6W-EOP	3/20/2021 15:45	ZN1535	M	C118497	8.07	543	334	7.5	157	159	123	<1.0	150	<1.0	<1.0	19.0	0.178	0.241	126			0.178	0.018	0.12	0.13	<0.0030
RSEM-R6W-EOP	3/21/2021 12:05	ZN1583	M	C118513	7.94	546	322	7.1	160	161	126	<1.0	154	<1.0	<1.0	17.8	0.178	0.227	129			0.146	0.017	0.12	0.14	<0.0030
RSEM-R6W-EOP	3/22/2021 11:05	ZN1162	M	C118411	7.93	551	334	7.9	162	164	123	<1.0	151	<1.0	<1.0	18.8	0.188	0.225	133			0.168	0.018	0.11	0.13	<0.0030
RSEM-R6W-EOP	3/23/2021 13:00	ZN5252	M	C119350	7.93	570	357	6.5	169	166	125	<1.0	153	<1.0	<1.0	18.5	0.173	0.229	130			0.155	0.019	0.12	0.14	<0.0030
RSEM-R6W-EOP	3/24/2021 11:30	ZN5257	M	C119352	8.03	560	345	10.8	160	159	124	<1.0	151	<1.0	<1.0	20.0	0.179	0.230	131			0.158	0.016	0.19	0.20	<0.0030
RSEM-R6W-EOP	3/25/2021 14:30	ZN6325	M	C119610	7.81	551	333	7.2	155	151	119	<1.0	145	<1.0	<1.0	19.1	0.183	0.234	129			0.158	0.021	0.15	0.17	<0.0030
RSEM-R6W-EOP	3/25/2021 15:00	ZN6323	D	C119610	7.93	553	366	12.1	148	151	118	<1.0	144	<1.0	<1.0	18.9	0.183	0.236	130			0.161	0.019	0.15	0.17	<0.0030
RSEM-R6W-EOP	3/26/2021 10:50	ZN6316	M	C119607	8.03	561	340	6.0	145	145	122	<1.0	149	<1.0	<1.0	19.9	0.192	0.243	131			0.223	0.022	0.14	0.17	0.0031
RSEM-R6W-EOP	3/27/2021 13:50	ZN9495	M	C120087	8.06	586	354	10.9	152	149	129	<1.0	157	<1.0	<1.0	19.8	0.185	0.248	135			0.241	0.023	0.15	0.17	<0.0030
RSEM-R6W-EOP	3/28/2021 10:30	ZN9522	M	C120093	7.92	591	349	6.6	149	150	129	<1.0	158	<1.0	<1.0	21.7	0.179	0.253	136			0.257	0.025	0.14	0.17	0.0030
RSEM-R6W-EOP	3/29/2021 10:50	ZN9581	M	C120108	8.09	615	364	6.5	152	154	134	<1.0	163	<1.0	<1.0	21.6	0.172	0.272	139			0.238	0.023	0.16	0.18	<0.0030
RSEM-R6W-EOP	3/30/2021 12:55	ZO2681	M	C120790	8.09	609	346	9.1	155	157	133	<1.0	162	<1.0	<1.0	21.2	0.165	0.263	142			0.224	0.023	0.17	0.19	<0.0030
RSEM-R6W-EOP	3/30/2021 13:05	ZO2682	D	C120790	8.04	609	363	7.1	158	156	131	<1.0	159	<1.0	<1.0	20.6	0.165	0.262	142			0.301	0.022	0.15	0.17	<0.0030
RSEM-R6W-EOP	3/31/2021 16:40	ZO4117	M	C121130	7.85	591	345	9.3	153	153	129	<1.0	158	<1.0	<1.0	20.4	0.160	0.273	136			0.215	0.024	0.16	0.19	<0.0030
RSEM-R6W-EOP	4/1/2021 11:30	ZO4124	M	C121132	8.08	592	348	17.4	148	149	131	<1.0	160	<1.0	<1.0	19.7	0.166	0.267	136			0.213	0.020	0.11	0.13	0.0030
RSEM-R6W-EOP	4/2/2021 12:40	ZO4865	M	C121238	8.09	603	360	10.4	148	154	129	<1.0	157	<1.0	<1.0	20.2	0.160	0.266	153			0.212	0.0253	0.226	0.251	<0.0030
RSEM-R6W-EOP	4/3/2021 13:10	ZO6450	M	C121575	7.71	649	390	3.4	155	155	124	<1.0	152	<1.0	<1.0	21.3	0.231	0.269	169			0.306	0.056	0.34	0.40	<0.0030
RSEM-R6W-EOP	4/3/2021 13:20	ZO6451	D	C121575	8.05	651	383	4.2	157	155	127	<1.0	155	<1.0	<1.0	21.4	0.221	0.267	166			0.297	0.057	0.35	0.40	<0.0030
RSEM-R6W-EOP	4/4/2021 12:50	ZO6464	M	C121580	8.04	657	387	4.7	156	156	127	<1.0	155	<1.0	<1.0	19.9	0.229	0.260	172			0.364	0.039	0.29	0.33	<0.0030
RSEM-R6W-EOP	4/5/2021 12:50	ZO7518	M	C121801	8.11	617	390	6.7	151	151	124	<1.0	151	<1.0	<1.0	18.7	0.218	0.237	155			0.274	0.028	0.21	0.23	0.0037
RSEM-R6W-EOP	4/6/2021 14:30	ZO9475	M	C122250	8.17	593	376	8.1	155	150	124	<1.0	151	<1.0	<1.0	17.4	0.215	0.224	150			0.237	0.022	0.14	0.16	<0.0030
RSEM-R6W-EOP	4/7/2021 14:40	ZP0881	M	C122580	8.18	578	340	6.0	145	151	126	<1.0	153	<1.0	<1.0	16.8	0.219	0.215	143			0.236	0.019	0.16	0.18	<0.0030
RSEM-R6W-EOP	4/7/2021 14:50	ZP0882	D	C122580	8.19	584	296	6.5	151	151	129	<1.0	157	<1.0	<1.0	16.1	0.222	0.216	142			0.245	0.019	0.16	0.18	<0.0030
RSEM-R6W-EOP	4/8/2021 12:10	ZP1743	M	C122796	8.13	572	304	5.3	143	145	122	<1.0	149	<1.0	<1.0	16.8	0.211	0.222	141			0.237	0.021	0.18	0.20	<0.0030
RSEM-R6W-EOP	4/9/2021 13:00	ZP1762	M	C122801	8.17	577	344	7.7	141	144	125	<1.0	153	<1.0	<1.0	16.0	0.209	0.213	133			0.297	0.023	0.22	0.24	<0.0030
RSEM-R6W-EOP	4/9/2021 13:10	ZP1763	D	C122801	8.19	577	404	6.0	141	139	127	<1.0	155	<1.0	<1.0	15.1	0.207	0.219	141			0.273	0.022	0.20	0.22	<0.0030
RSEM-R6W-EOP	4/10/2021 10:50	ZP3594	M	C123204	7.97	576	352	8.0	148	145	120	<1.0	147	<1.0	<1.0	20.5	0.241	0.262	138			0.242	0.024	0.24	0.26	<0.0030
RSEM-R6W-EOP	4/11/2021 12:50	ZP3858	M	C123260	7.87	594	404	11.0	152	146	129	<1.0	157	<1.0	<1.0	16.6	0.218	0.204	146			0.279	0.019	0.19	0.21	<0.0030
RSEM-R6W-EOP	4/12/2021 10:30	ZP3854	M	C123259	8.03	576	452	9.1	151	147	122	<1.0	149	<1.0	<1.0	20.4	0.226	0.245	142			0.242	0.018	0.22	0.24	<0.0030
RSEM-R6W-EOP	4/13/2021 11:45	ZP9471	M	C124396	7.94	587	447	17.1	142	129	134	<1.0	164	<1.0	<1.0	13.7	0.206	0.211	140			0.412	0.019	0.16	0.18	<0.0030
RSEM-R6W-EOP	4/14/2021 18:50	ZP9474	M	C124397	8.06	603	412	21.9	155	140	141	<1.0	173	<1.0	<1.0	15.2	0.201	0.206	143			0.342	0.017	0.15	0.17	<0.0030
RSEM-R6W-EOP	4/17/2021 11:40	ZQ3725	M	C125158	8.23	586	324	4.8	164	161	150	<1.0	183	<1.0	<1.0	13.5	0.189	0.178	132			0.218	0.014	0.070	0.084	<0.0030
RSEM-R6W-EOP	4/18/2021 10:30	ZQ3726	M	C125158	8.24	572	326	3.2	162	154	150	<1.0	183	<1.0	<1.0	13.4	0.189	0.163	124			0.226	0.011	0.054	0.065	<0.0030
RSEM-R6W-EOP	4/19/2021 12:35	ZQ5795	M	C125554	8.35	569	356	3.8	140	136	149	<1.0	182	<1.0	<1.0	12.8	0.204	0.158	117			0.306	0.010	0.097	0.11	<0.0030
RSEM-R6W-EOP	4/20/2021 10:30	ZQ9981	M	C126323	8.23	582	352	7.1	140	137	147	<1.0	179	<1.0	<1.0	13.6	0.200	0.161	129			0.402	<0.010	0.11	0.11	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	4/21/2021 10:00	ZQ9982	M	C126323	8.19	594	276	11.3	144	138	144	<1.0	176	<1.0	<1.0	14.3	0.201	0.171	136			0.318	0.012	0.11	0.12	<0.0030
RSEM-R6W-EOP	4/22/2021 9:30	ZR1313	M	C126529	8.22	565	296	16.3	135	131	149	<1.0	182	<1.0	<1.0	12.3	0.179	0.149	116			0.338	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	4/23/2021 9:30	ZR1314	M	C126529	8.24	530	188	8.3	136	129	144	<1.0	176	<1.0	<1.0	10.9	0.176	0.132	108			0.416	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	4/24/2021 3:00	ZR4688	M	C127059	8.08	553	320	4.9	135	132	143	<1.0	174	<1.0	<1.0	12.3	0.187	0.165	115			0.277	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	4/25/2021 14:15	ZR4686	M	C127059	8.32	573	324	6.5	141	136	147	<1.0	179	<1.0	<1.0	14.5	0.183	0.180	120			0.238	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	4/26/2021 10:30	ZR5705	M	C127281	8.29	576	316	4.6	136	139	147	<1.0	179	<1.0	<1.0	14.9	0.178	0.188	122			0.222	0.011	0.10	0.11	<0.0030
RSEM-R6W-EOP	4/27/2021 15:45	ZR7959	M	C127704	8.25	563	276	6.2	150	145	148	<1.0	180	<1.0	<1.0	14.2	0.173	0.173	113			0.193	0.010	0.11	0.12	<0.0030
RSEM-R6W-EOP	4/28/2021 12:20	ZS0313	M	C128230	8.28	519	288	10.1	148	139	148	<1.0	180	<1.0	<1.0	12.3	0.158	0.146	100			0.247	<0.010	0.15	0.15	<0.0030
RSEM-R6W-EOP	4/28/2021 12:30	ZS0314	D	C128230	8.23	520	320	6.9	140	150	149	<1.0	182	<1.0	<1.0	13.0	0.165	0.143	102			0.184	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	4/29/2021 10:30	ZS2293	M	C128584	8.29	547	332	7.6	143	144	151	<1.0	185	<1.0	<1.0	14.2	0.201	0.213	108			0.204	0.012	0.12	0.13	0.0032
RSEM-R6W-EOP	4/30/2021 10:45	ZS2247	M	C128573	8.27	565	332	5.1	141	142	151	<1.0	184	<1.0	<1.0	16.3	0.213	0.206	116			0.240	0.013	0.12	0.13	0.0030
RSEM-R6W-EOP	4/30/2021 10:55	ZS2248	D	C128573	8.20	563	336	7.7	143	135	150	<1.0	182	<1.0	<1.0	16.7	0.210	0.184	113			0.234	0.013	0.12	0.13	<0.0030
RSEM-R6W-EOP	5/1/2021 10:40	ZS6051	M	C129102	8.19	559	296	3.9	135	134	148	<1.0	180	<1.0	<1.0	15.6	0.205	0.206	113			0.260	0.012	0.11	0.13	<0.0030
RSEM-R6W-EOP	5/2/2021 12:30	ZS6044	M	C129102	8.20	508	248	2.5	139	130	149	<1.0	181	<1.0	<1.0	12.4	0.188	0.155	93.5			0.527	<0.010	0.096	0.096	<0.0030
RSEM-R6W-EOP	5/2/2021 12:40	ZS6046	D	C129102	8.32	507	220	2.4	136	134	149	1.5	179	1.8	<1.0	12.8	0.188	0.154	95.1			0.188	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	5/3/2021 10:25	ZS6022	M	C129096	8.31	528	324	4.1	127	126	147	<1.0	179	<1.0	<1.0	13.5	0.209	0.208	99.2			0.234	0.013	0.10	0.12	<0.0030
RSEM-R6W-EOP	5/4/2021 13:50	ZS9946	M	C129944	8.08	557	348	8.1	138	129	136	<1.0	166	<1.0	<1.0	16.2	0.177	0.220	114			0.255	0.013	0.12	0.14	<0.0030
RSEM-R6W-EOP	5/5/2021 12:30	ZT3123	M	C130491	8.32	604	392	6.2	140	138	145	1.1	174	1.4	<1.0	19.3	0.192	0.250	133			0.376	0.015	0.17	0.18	<0.0030
RSEM-R6W-EOP	5/6/2021 15:00	ZT3104	M	C130484	8.27	641	420	9.9	141	136	147	<1.0	180	<1.0	<1.0	21.9	0.199	0.286	150			0.250	0.017	0.19	0.21	<0.0030
RSEM-R6W-EOP	5/7/2021 11:00	ZT3094	M	C130477	8.31	681	448	7.6	142	136	149	<1.0	181	<1.0	<1.0	22.4	0.201	0.308	157			0.278	0.020	0.21	0.23	<0.0030
RSEM-R6W-EOP	5/8/2021 12:30	ZT6587	M	C130995	8.38	685	400	11.1	136	139	148	1.6	177	2.0	<1.0	22.7	0.204	0.326	163			2.38	0.020	0.28	0.30	<0.0030
RSEM-R6W-EOP	5/9/2021 13:10	ZT6967	M	C131057	8.31	700	404	14.4	145	143	152	<1.0	186	<1.0	<1.0	23.5	0.209	0.318	177			0.796	0.024	0.37	0.39	<0.0030
RSEM-R6W-EOP	5/10/2021 5:30	ZT6908	M	C131048	8.31	702	380	4.3	142	142	148	<1.0	180	<1.0	<1.0	22.9	0.209	0.315	176			0.231	0.025	0.41	0.44	<0.0030
RSEM-R6W-EOP	5/11/2021 10:50	ZU0198	M	C131591	8.35	672	404	4.8	155	148	147	<1.0	179	<1.0	<1.0	18.9	0.181	0.291	170			0.209	0.024	0.45	0.47	0.0031
RSEM-R6W-EOP	5/12/2021 11:00	ZU2125	M	C131927	8.20	650	344	6.2	140	157	142	<1.0	174	<1.0	<1.0	19.3	0.168	0.279	159			0.311	0.023	0.41	0.43	0.0031
RSEM-R6W-EOP	5/13/2021 10:40	ZU4937	M	C132324	8.21	620	536	3.5	137	147	143	<1.0	174	<1.0	<1.0	18.6	0.165	0.258	149			0.181	0.020	0.38	0.40	<0.0030
RSEM-R6W-EOP	5/14/2021 10:10	ZU4952	M	C132327	8.35	622	536	3.5	150	152	146	1.0	175	1.2	<1.0	16.2	0.177	0.231	135			0.148	0.019	0.35	0.37	<0.0030
RSEM-R6W-EOP	5/15/2021 14:40	ZU7899	M	C132915	8.29	584	596	14.2	162	161	158	<1.0	193	<1.0	<1.0	17.7	0.203	0.231	147			0.116	0.016	0.34	0.36	<0.0030
RSEM-R6W-EOP	5/15/2021 14:50	ZU7900	D	C132915	8.32	670	656	16.4	166	160	147	<1.0	180	<1.0	<1.0	17.7	0.190	0.222	145			0.115	0.016	0.38	0.39	<0.0030
RSEM-R6W-EOP	5/16/2021 14:30	ZU7831	M	C132904	8.33	656	380	9.7	171	183	147	<1.0	179	<1.0	<1.0	16.9	0.194	0.215	141			0.126	0.015	0.34	0.35	<0.0030
RSEM-R6W-EOP	5/17/2021 16:00	ZU9399	M	C133243	8.39	632	440	4.9	164	168	158	1.7	189	2.1	<1.0	14.9	0.174	0.177	126			0.098	0.014	0.25	0.26	<0.0030
RSEM-R6W-EOP	5/17/2021 16:10	ZU9400	D	C133243	8.42	632	332	5.6	168	167	164	1.8	196	2.1	<1.0	14.4	0.177	0.177	127			0.094	0.013	0.25	0.27	<0.0030
RSEM-R6W-EOP	5/18/2021 16:30	ZV2802	M	C133850	8.34	621	548	17.6	165	168	169	<1.0	206	<1.0	<1.0	17.8	0.185	0.234	137			0.177	0.020	0.36	0.38	<0.0030
RSEM-R6W-EOP	5/19/2021 13:50	ZV3575	M	C134016	8.38	662	496	4.1	167	165	151	1.9	180	2.3	<1.0	22.5	0.199	0.274	152			0.187	0.022	0.38	0.40	<0.0030
RSEM-R6W-EOP	5/20/2021 12:10	ZV5699	M	C134406	8.30	679	380	4.7	180	177	152	<1.0	186	<1.0	<1.0	23.0	0.176	0.275	162			0.172	0.023	0.39	0.41	<0.0030
RSEM-R6W-EOP	5/21/2021 11:00	ZV5659	M	C134400	8.29	679	396	9.3	188	181	156	<1.0	190	<1.0	<1.0	22.4	0.189	0.287	159			0.102	0.020	0.40	0.42	<0.0030
RSEM-R6W-EOP	5/21/2021 11:10	ZV5660	D	C134400	8.30	679	444	8.1	187	187	156	<1.0	190	<1.0	<1.0	21.8	0.177	0.271	162			0.110	0.023	0.37	0.39	<0.0030
RSEM-R6W-EOP	5/22/2021 11:30	ZV6994	M	C134601	8.17	680	422	12.0	188	190	159	<1.0	194	<1.0	<1.0	20.5	0.180	0.271	162			0.080	0.0221	0.373	0.396	<0.0030
RSEM-R6W-EOP	5/23/2021 14:20	ZV8624	M	C134923	8.36	695	428	2.5	178	182	164	1.6	197	1.9	<1.0	22.0	0.171	0.296	165			0.091	0.022	0.44	0.46	<0.0030
RSEM-R6W-EOP	5/23/2021 14:30	ZV8625	D	C134923	8.36	695	428	2.2	186	178	165	1.4	197	1.7	<1.0	20.9	0.155	0.305	165			0.100	0.024	0.42	0.44	<0.0030
RSEM-R6W-EOP	5/24/2021 11:50	ZW1262	M	C135427	8.30	702	396	4.4	165	167	171	<1.0	209	<1.0	<1.0	21.1	0.162	0.320	166			0.224	0.028	0.51	0.54	<0.0030
RSEM-R6W-EOP	5/25/2021 9:30	ZW1243	M	C135423	8.20	707	468	9.7	150	153	172	<1.0	210	<1.0	<1.0	21.5	0.160	0.334	168			0.122	0.033	0.61	0.64	<0.0030
RSEM-R6W-EOP	5/26/2021 12:00	ZW4842	M	C136104	8.20	778	482	15.6	143	154	147	<1.0	179	<1.0	<1.0	26.4	0.210	0.427	203			0.150	0.0409	0.596	0.637	<0.0030
RSEM-R6W-EOP	5/27/2021 11:10	ZW4835	M	C136103	8.15	825	520	14.8	174	168	150	<1.0	183	<1.0	<1.0	27.1	0.220	0.439	241			0.131	0.0403	0.589	0.629	<0.0030
RSEM-R6W-EOP	5/28/2021 13:15	ZW4301	M	C136040	8.22	823	476	4.0	178	178	187	<1.0	228	<1.0	<1.0	28.0	0.222	0.434	209			0.120	0.035	0.59	0.63	<0.0030
RSEM-R6W-EOP	5/29/2021 11:00	ZW9128	M	C136816	8.29	835	520	3.5	182	185	191	<1.0	234	<1.0	<1.0	27.9	0.208	0.425	209			0.113	0.033	0.53	0.57	<0.0030
RSEM-R6W-EOP	5/30/2021 10:00	ZW9155	M	C136825	8.28	855	480	7.7	169	183	172	<1.0	210	<1.0	<1.0	28.1	0.222	0.441	217			0.109	0.031	0.55	0.58	<0.0030
RSEM-R6W-EOP	5/31/2021 6:20	ZW9168	M	C136832	8.21	829	504	6.4	164	182	161	<1.0	197	<1.0	<1.0	27.7	0.211	0.425	216			0.103	0.029	0.54	0.57	<0.0030
RSEM-R6W-EOP	6/1/2021 10:45	ZX3967	M	C137816	8.29	779	484	5.0	168	175	202	1.5	242	1.9	<1.0	25.1	0.253	0.373	189			0.098	0.027	0.50	0.53	<0.0030
RSEM-R6W-EOP	6/1/2021 10:55	ZX3968	D	C137816	8.23	777	496	5.2	169	173	198	<1.0	241	<1.0	<1.0	25.2	0.218	0.391	193			0.088	0.027	0.52	0.55	0.0031
RSEM-R6W-EOP	6/2/2021 13:25	ZX5271	M	C138096	8.32	835	496	7.3	158	158	181	<1.0	221	<1.0	<1.0	27.3	0.229	0.401	208			0.100	0.031	0.64	0.67	0.0038
RSEM-R6W-EOP	6/3/2021 11:30	ZX7148	M	C138404	8.36	870	524	6.8	163	158	188	1.9	224	2.3	<1.0	28.0	0.224	0.390	227			0.084	0.034	0.72	0.75	0.0031
RSEM-R6W-EOP	6/3/2021 11:40	ZX7149	D	C138404	8.37	868	520	8.5	164	156	193	1.8	231	2.2	<1.0	28.0	0.221	0.395	220			0.095	0.035	0.68	0.71	0.0032
RSEM-R6W-EOP	6/4/2021 12:30	ZX6907	M	C138357	8.32	768	468	9.0	162	155	204	<1.0	249	<1.0	<1.0	23.5	0.209	0.329	187			0.097	0.030	0.55	0.57	0.0030
RSEM-R6W-EOP	6/5/2021 11:00	ZY0222	M	C138844	8.32	691	452	3.7	159	151	192	2.3	229	2.8	<1.0	20.1	0.189	0.276	161			0.054	0.025	0.40	0.43	<0.0030
RSEM-R6W-EOP	6/6/2021 10:50	ZY0253	M	C138850	8.36	628	428	8.0	155	155	196	3.4	231	4.1	<1.0	15.9	0.183	0.229	138			0.037	0.021	0.30	0.33	<0.0030
RSEM-R6W-EOP	6/7/2021 11:10	ZY3089	M	C139476	8.17	581	428	6.4	155	150	194	<1.0	237	<1.0	<1.0	16.7	0.147	0.236	121			0.089	0.017	0.23	0.25	<0.0030
RSEM-R6W-EOP	6/8/2021 11:40	ZY5039	M	C139835	8.23	621	264	2.7	172	172	198	<1.0	241	<1.0	<1.0	16.5	0.184	0.223	131			0.050	0.024	0.25	0.27	<0.0030
RSEM-R6W-EOP	6/9/2021 13:50	ZY6854	M	C140198	8.37	638	396	3.0	174	175	171	3.0	201	3.6	<1.0	18.5	0.150	0.252	143			0.054	0.025	0.25	0.27	<0.0030
RSEM-R6W-EOP	6/10/2021 12:05	ZY8800	M	C140527	8.35	677	364	2.1	159	159	195	2.4	232	2.9	<1.0	20.8	0.159	0.321	158			0.182	0.025	0.33	0.36	0.0032
RSEM-R6W-EOP	6/11/2021 14:20	ZY9644	M	C140675	8.22	678	568	2.8	157	154	195	<1.0	237	<1.0	<1.0	19.2	0.167	0.299	162			0.066	0.027	0.33	0.36	<0.0030
RSEM-R6W-EOP	6/12/2021 10:25	ZZ1989	M	C141056	8.41	668	408	6.7	158	155	151	1.8	180	2.2	<1.0	17.9	0.172	0.284	154			0.059	0.024	0.36	0.38	0.0034
RSEM-R6W-EOP	6/13/2021 14:15	ZZ1994	M	C141057	8.38	651	468	3.7	162	154	152	1.1	183	1.3	<1.0	17.3	0.167	0.261	149			0.046	0.020	0.31	0.33	0.0030
RSEM-R6W-EOP	6/13/2021 14:25	ZZ1995	D	C141057	8.39	646	432	3.5	160	154	149	1.4	179	1.7	<1.0	17.3	0.164	0.275	146			0.036	0.020	0.29	0.31	0.0031
RSEM-R6W-EOP	6/14/2021 10:40	ZZ2010	M	C141059	8.45	632	500	2.1	157	153	150	2.9	176	3.4	<1.0	17.1	0.164	0.257	144			0.053	0.018	0.31	0.33	<0.0030
RSEM-R6W-EOP	6/15/2021 11:40	AAB014	M	C142607	8.35	585	392	1.5	154	152	149	<1.0	182	<1.0	<1.0	14.9	0.141	0.222	128			0.153	0.014	0.26	0.28	<0.0030
RSEM-R6W-EOP	6/16/2021 12:20	AAB003	M	C142604	8.40	549	340	1.4	151	154	151	1.4	181	1.6	<1.0	12.7	0.142	0.171	109			0.045	0.013	0.25	0.27	<0.0030
RSEM-R6W-EOP	6/17/2021 11:20	AAC474	M	C142866	8.41	638	400	2.2	163	156	145	1.5	174	1.8	<1.0	19.4	0.185	0.260	143			0.100	0.032	0.43	0.46	<0.0030
RSEM-R6W-EOP	6/18/2021 12:20	AAC476	M	C142867	8.33	706	428	4.5	159	157	141	<1.0	172	<1.0	<1.0	24.0	0.207	0.345	179			0.066	0.042	0.55	0.59	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	6/19/2021 11:20	AAF585	M	C143352	8.33	702	460	4.1	172	151	137	<1.0	167	<1.0	<1.0	22.8	0.223	0.341	176			0.062	0.031	0.49	0.52	<0.0030
RSEM-R6W-EOP	6/20/2021 10:30	AAF490	M	C143330	8.26	639	420	2.9	157	158	138	<1.0	168	<1.0	<1.0	19.3	0.224	0.283	147			0.054	0.023	0.37	0.40	<0.0030
RSEM-R6W-EOP	6/21/2021 6:00	AAF561	M	C143340	8.30	587	376	3.9	155	157	141	<1.0	172	<1.0	<1.0	17.0	0.190	0.242	134			0.079	0.020	0.33	0.35	<0.0030
RSEM-R6W-EOP	6/22/2021 14:25	AAL816	M	C144319	8.31	512	216	2.7	150	150	140	<1.0	171	<1.0	<1.0	13.1	0.228	0.201	110			0.034	0.014	0.22	0.24	<0.0030
RSEM-R6W-EOP	6/23/2021 14:35	AAO113	M	C144722	8.38	489	252	3.5	158	144	144	1.8	171	2.2	<1.0	11.3	0.141	0.182	95.0			0.071	0.010	0.18	0.19	<0.0030
RSEM-R6W-EOP	6/23/2021 14:45	AAO114	D	C144722	8.39	490	244	4.0	158	143	148	1.6	177	1.9	<1.0	10.7	0.137	0.179	96.1			0.050	0.010	0.18	0.19	<0.0030
RSEM-R6W-EOP	6/24/2021 14:45	AAQ176	M	C144970	8.33	452	248	10.3	146	129	134	1.1	161	1.3	<1.0	8.99	0.132	0.132	77.3			0.035	<0.010	0.19	0.19	0.0036
RSEM-R6W-EOP	6/25/2021 13:10	AAQ537	M	C144894	8.28	418	292	8.1	183	129	144	<1.0	176	<1.0	<1.0	7.4	0.128	0.103	73			0.031	<0.010	0.11	0.11	0.0033
RSEM-R6W-EOP	6/25/2021 13:10	AAP487	D	C144894	8.22	416	292	7.2	178	130	144	<1.0	176	<1.0	<1.0	7.46	0.120	0.103	65.0			0.028	<0.010	0.13	0.13	0.0034
RSEM-R6W-EOP	6/26/2021 14:35	AAU431	M	C145599	8.30	424	228	5.1	151	166	168	<1.0	205	<1.0	<1.0	6.32	0.153	0.125	59.7			0.027	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	6/27/2021 13:20	AAU317	M	C145583	8.22	420	232	2.2	152	169	154	<1.0	188	<1.0	<1.0	6.97	0.115	0.155	66.3			0.027	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	6/27/2021 13:30	AAU318	D	C145583	8.24	409	252	1.4	147	165	165	<1.0	202	<1.0	<1.0	7.09	0.178	0.137	66.4			0.035	<0.010	0.12	0.12	<0.0030
RSEM-R6W-EOP	6/28/2021 13:35	AAX135	M	C146134	8.27	438	256	9.0	151	183	152	<1.0	185	<1.0	<1.0	7.78	0.124	0.130	75.8			0.016	<0.010	0.12	0.12	0.0031
RSEM-R6W-EOP	6/29/2021 15:10	AAZ026	M	C146532	8.20	418	312	2.9	156	149	161	<1.0	196	<1.0	<1.0	7.09	0.132	0.095	75.1			0.029	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	6/30/2021 10:50	AAZ000	M	C146528	8.18	407	280	1.1	158	149	164	<1.0	200	<1.0	<1.0	6.32	0.172	0.093	72.3			0.023	<0.010	0.090	0.090	<0.0030
RSEM-R6W-EOP	6/30/2021 11:00	AAZ001	D	C146528	8.07	403	296	1.9	160	150	149	<1.0	182	<1.0	<1.0	6.59	0.129	0.093	71.3			0.044	<0.010	0.087	0.087	<0.0030
RSEM-R6W-EOP	7/1/2021 15:00	ABB250	M	C146903	8.25	415	284	3.0	154	155	170	<1.0	207	<1.0	<1.0	5.19	0.131	0.094	74.3			0.022	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	7/2/2021 12:10	ABB258	M	C146905	8.15	428	296	1.5	150	154	175	<1.0	213	<1.0	<1.0	7.10	0.137	0.104	77.1			0.065	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	7/2/2021 12:20	ABB260	D	C146905	8.22	422	284	1.9	169	155	160	<1.0	195	<1.0	<1.0	7.33	0.128	0.109	79.5			0.022	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	7/3/2021 10:30	ABE024	M	C147272	8.21	431	304	<1.0	153	150	166	<1.0	203	<1.0	<1.0	7.89	0.148	0.123	84.1			0.018	<0.010	0.12	0.12	<0.0030
RSEM-R6W-EOP	7/4/2021 13:30	ABD991	M	C147267	8.19	446	236	<1.0	152	146	171	<1.0	209	<1.0	<1.0	8.70	0.149	0.145	87.3			0.037	<0.010	0.12	0.12	0.0036
RSEM-R6W-EOP	7/4/2021 13:40	ABD992	D	C147267	8.21	437	224	<1.0	153	146	155	<1.0	189	<1.0	<1.0	8.45	0.146	0.137	86.5			0.022	<0.010	0.12	0.12	0.0033
RSEM-R6W-EOP	7/5/2021 9:25	ABG199	M	C147674	8.21	459	244	1.7	155	148	142	<1.0	173	<1.0	<1.0	10.3	0.159	0.172	92.2			0.029	<0.010	0.14	0.14	<0.0030
RSEM-R6W-EOP	7/6/2021 10:00	ABJ179	M	C148228	8.30	483	264	2.3	143	149	153	<1.0	187	<1.0	<1.0	11.0	0.134	0.181	96.3			0.053	<0.010	0.13	0.13	<0.0030
RSEM-R6W-EOP	7/7/2021 11:30	ABK532	M	C148516	8.38	503	236	2.9	146	143	159	1.7	190	2.0	<1.0	11.8	0.145	0.181	102			0.022	<0.010	0.13	0.13	<0.0030
RSEM-R6W-EOP	7/8/2021 11:30	ABM761	M	C148925	8.34	515	260	2.5	151	148	161	1.3	194	1.6	<1.0	12.9	0.147	0.189	112			0.288	<0.010	0.22	0.22	<0.0030
RSEM-R6W-EOP	7/9/2021 9:50	ABM748	M	C148923	8.30	527	204	2.1	149	153	163	<1.0	199	<1.0	<1.0	13.6	0.237	0.195	115			0.024	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	7/10/2021 10:00	ABP528	M	C149429	8.28	530	284	2.3	156	157	134	<1.0	164	<1.0	<1.0	14.2	0.140	0.197	123			0.081	<0.010	0.11	0.11	0.0088
RSEM-R6W-EOP	7/11/2021 10:00	ABP673	M	C149459	8.29	559	308	4.6	161	162	141	<1.0	172	<1.0	<1.0	14.9	0.146	0.230	129			0.018	<0.010	0.12	0.12	0.0036
RSEM-R6W-EOP	7/12/2021 4:30	ABP854	M	C149486	8.34	576	280	3.8	160	158	164	<1.0	200	<1.0	<1.0	15.5	0.167	0.237	135			0.016	<0.010	0.15	0.15	<0.0030
RSEM-R6W-EOP	7/13/2021 15:20	ABU091	M	C150243	8.34	593	380	2.0	160	164	189	1.5	227	1.8	<1.0	14	0.196	0.253	130			0.016	<0.010	0.14	0.14	<0.0030
RSEM-R6W-EOP	7/14/2021 13:45	ABX615	M	C150851	8.36	599	276	1.3	150	157	147	2.2	174	2.7	<1.0	14	0.177	0.247	120			0.067	<0.010	0.12	0.12	<0.0030
RSEM-R6W-EOP	7/15/2021 15:35	ABY388	M	C150960	8.32	578	316	1.0	151	155	179	1.9	214	2.3	<1.0	13	0.186	0.227	120			0.027	<0.010	0.12	0.12	<0.0030
RSEM-R6W-EOP	7/16/2021 13:00	ABZ187	M	C151029	8.23	540	348	5.1	152	155	173	<1.0	211	<1.0	<1.0	11	0.161	0.194	110			0.021	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	7/17/2021 15:25	ACC246	M	C151542	8.25	534	288	6.4	154	149	191	<1.0	233	<1.0	<1.0	11	0.183	0.194	110			0.035	<0.010	0.15	0.15	<0.0030
RSEM-R6W-EOP	7/18/2021 13:40	ACC416	M	C151549	8.21	536	240	9.9	150	159	194	<1.0	236	<1.0	<1.0	11	0.143	0.208	110			0.041	<0.010	0.20	0.20	<0.0030
RSEM-R6W-EOP	7/18/2021 13:50	ACC417	D	C151549	8.26	539	260	10.3	152	146	194	<1.0	237	<1.0	<1.0	11	0.182	0.203	110			0.051	<0.010	0.20	0.20	<0.0030
RSEM-R6W-EOP	7/19/2021 15:25	ACF037	M	C151946	8.18	553	344	6.3	136	143	191	<1.0	233	<1.0	<1.0	13	0.154	0.218	110			0.038	<0.010	0.22	0.22	<0.0030
RSEM-R6W-EOP	7/20/2021 14:50	ACH815	M	C152456	8.25	547	296	3.9	147	145	183	<1.0	223	<1.0	<1.0	12	0.161	0.202	110			0.086	<0.010	0.21	0.21	<0.0030
RSEM-R6W-EOP	7/21/2021 15:50	ACH933	M	C152481	8.16	533	280	8.2	151	146	156	<1.0	190	<1.0	<1.0	14.7	0.152	0.238	114			0.052	<0.010	0.21	0.21	<0.0030
RSEM-R6W-EOP	7/22/2021 17:25	ACL554	M	C152988	8.06	863	524	11.5	298	290	129	<1.0	157	<1.0	<1.0	80.6	0.268	1.28	199			0.084	0.035	0.58	0.62	<0.0030
RSEM-R6W-EOP	7/23/2021 11:50	ACL701	M	C153012	7.96	587	412	5.3	149	147	135	<1.0	165	<1.0	<1.0	17.9	0.183	0.315	137			0.068	0.023	0.39	0.41	<0.0030
RSEM-R6W-EOP	7/24/2021 14:50	ACO407	M	C153513	8.23	635	408	3.8	166	152	158	<1.0	192	<1.0	<1.0	19.0	0.185	0.294	155			0.051	0.019	0.37	0.39	<0.0030
RSEM-R6W-EOP	7/25/2021 14:10	ACO190	M	C153467	8.24	693	396	3.3	166	168	138	<1.0	168	<1.0	<1.0	19.7	0.193	0.316	181			0.042	0.019	0.39	0.41	<0.0030
RSEM-R6W-EOP	7/26/2021 10:45	ACN521	M	C153324	8.15	733	548	4.7	229	196	175	<1.0	214	<1.0	<1.0	20.9	0.239	0.329	198			0.054				<0.0030
RSEM-R6W-EOP	7/27/2021 11:20	ACT044	M	C154246	8.21	752	492	5.3	201	192	155	<1.0	189	<1.0	<1.0	21.1	0.218	0.316	218			0.022	0.019	0.42	0.44	<0.0030
RSEM-R6W-EOP	7/28/2021 12:20	ACV590	M	C154699	8.28	695	492	3.1	197	196	186	<1.0	227	<1.0	<1.0	17.5	0.184	0.271	193			0.034	0.016	0.37	0.39	<0.0030
RSEM-R6W-EOP	7/29/2021 12:00	ACY652	M	C155287	8.27	673	400	4.4	199	194	176	<1.0	215	<1.0	<1.0	15.9	0.173	0.247	178			0.055	0.013	0.30	0.32	<0.0030
RSEM-R6W-EOP	7/30/2021 10:40	ACY654	M	C155288	8.22	631	400	3.3	203	221	185	<1.0	225	<1.0	<1.0	13	0.162	0.219	150			0.019	0.010	0.27	0.28	0.0031
RSEM-R6W-EOP	7/31/2021 12:00	ADA374	M	C155508	8.04	609	380	4.8	195	204	139	<1.0	170	<1.0	<1.0	14.8	0.150	0.219	168			<0.015	0.0086	0.234	0.243	<0.0030
RSEM-R6W-EOP	8/1/2021 10:40	ADC692	M	C155924	7.62	631	380	4.6	204	192	148	<1.0	180	<1.0	<1.0	13.9	0.157	0.229	169			0.068	<0.010	0.24	0.24	<0.0030
RSEM-R6W-EOP	8/2/2021 5:40	ADC745	M	C155936	8.10	668	408	3.5	213	219	193	<1.0	235	<1.0	<1.0	15.4	0.192	0.243	178			0.061	<0.010	0.25	0.25	<0.0030
RSEM-R6W-EOP	8/5/2021 11:05	ADK135	M	C157133	8.17	688	432	4.3	218	229	194	<1.0	237	<1.0	<1.0	18.3	0.181	0.283	188			0.046	<0.010	0.22	0.22	<0.0030
RSEM-R6W-EOP	8/6/2021 11:50	ADK123	M	C157131	8.12	687	408	6.9	217	201	165	<1.0	202	<1.0	<1.0	20.2	0.192	0.313	182			0.027	<0.010	0.26	0.26	<0.0030
RSEM-R6W-EOP	8/7/2021 11:45	ADM458	M	C157545	8.21	727	444	4.5	206	104	136	<1.0	166	<1.0	<1.0	23.2	0.203	0.387	199			0.027	0.012	0.35	0.36	<0.0030
RSEM-R6W-EOP	8/8/2021 12:40	ADN232	M	C157651	8.21	758	452	3.0	197	193	137	<1.0	167	<1.0	<1.0	26.1	0.215	0.421	210			0.033	0.013	0.39	0.41	<0.0030
RSEM-R6W-EOP	8/9/2021 11:55	ADM368	M	C157523	8.00	786	472	5.6	225	188	138	<1.0	169	<1.0	<1.0	29.1	0.229	0.476	216			0.022	0.014	0.42	0.43	<0.0030
RSEM-R6W-EOP	8/10/2021 11:00	ADP900	M	C158211	8.27	821	556	3.3	193	195	190	<1.0	232	<1.0	<1.0	29.8	0.436	0.459	236			0.027	0.017	0.40	0.42	<0.0030
RSEM-R6W-EOP	8/11/2021 12:50	ADR989	M	C158615	7.76	825	488	2.9	205	196	139	<1.0	169	<1.0	<1.0	30.5	0.236	0.460	242			0.057	0.013	0.33	0.34	0.0038
RSEM-R6W-EOP	8/12/2021 11:50	ADU539	M	C159104	8.11	819	516	5.4	201	227	178	<1.0	218	<1.0	<1.0	29.6	0.232	0.465	241			0.044	0.013	0.34	0.35	<0.0030
RSEM-R6W-EOP	8/13/2021 11:00	ADU546	M	C159105	8.14	803	504	2.4	223	200	180	<1.0	220	<1.0	<1.0	28.1	0.255	0.426	240			0.047	0.011	0.30	0.31	<0.0030
RSEM-R6W-EOP	8/14/2021 11:30	ADW201	M	C159435	7.83	804	520	4.0	206	208	131	<1.0	160	<1.0	<1.0	27.0	0.224	0.475	236			0.031	<0.010	0.29	0.29	<0.0030
RSEM-R6W-EOP	8/15/2021 11:50	ADW428	M	C159489	7.83	785	472	3.2	213	226	127	<1.0	155	<1.0	<1.0	26.4	0.220	0.421	238			0.117	<0.010	0.26	0.26	0.0065
RSEM-R6W-EOP	8/16/2021 11:50	ADY263	M	C159861	7.78	792	352	1.1	218	225	132	<1.0	161	<1.0	<1.0	26.7	0.217	0.395	234			0.070	<0.010	0.21	0.21	<0.0030
RSEM-R6W-EOP	8/17/2021 11:50	AED546	M	C160795	7.99	783	460	2.1	214	216	128	<1.0	156	<1.0	<1.0	25.3	0.215	0.400	217			0.033	<0.010	0.19	0.19	0.0045
RSEM-R6W-EOP	8/18/2021 11:30	AED517	M	C160793	8.10	773	776	2.8	211	203	128	<1.0	157	<1.0	<1.0	25.3	0.210	0.382	219			0.021	<0.010	0.17	0.17	<0.0030
RSEM-R6W-EOP	8/19/2021 14:10	AEF598	M	C161077	8.16	774	644	2.7	192	239	121	<1.0	147	<1.0	<1.0	24.2	0.206	0.378	209			0.033	<0.010	0.15	0.15	0.0041
RSEM-R6W-EOP	8/20/2021 10:20	AEF523	M	C161059	7.67	724	208	1.7	204	199	129	<1.0	157	<1.0	<1.0	23.1	0.199	0.383	205			0.052	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	8/21/2021 11:00	AEI349	M	C161420	8.03	695	504	1.1	182	190	128	<1.0	156	<1.0	<1.0	22.2	0.185	0.336	188			0.142	<0.010	0.084	0.084	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	8/22/2021 12:20	AEI411	M	C161433	7.94	672	324	6.9	185	188	107	<1.0	130	<1.0	<1.0	30.3	0.192	0.459	182			0.205	<0.010	0.22	0.22	0.0038
RSEM-R6W-EOP	8/23/2021 11:30	AEL591	M	C161925	7.76	706	412	3.1	184	171	138	<1.0	168	<1.0	<1.0	33.4	0.183	0.526	177			0.172	0.018	0.45	0.47	<0.0030
RSEM-R6W-EOP	8/24/2021 17:05	AEN130	M	C162291	7.44	750	444	2.7	198	203	122	<1.0	148	<1.0	<1.0	37.9	0.238	0.545	191			0.047	0.022	0.58	0.60	<0.0030
RSEM-R6W-EOP	8/25/2021 16:45	AEP241	M	C162703	7.76	816	496	1.9	217	212	121	<1.0	148	<1.0	<1.0	35.7	0.270	0.559	218			0.093	0.017	0.43	0.44	0.0035
RSEM-R6W-EOP	8/26/2021 10:30	AER554	M	C163145	8.12	855	540	2.5	241	228	120	<1.0	147	<1.0	<1.0	38.3	0.287	0.517	241			0.053	0.016	0.36	0.38	<0.0030
RSEM-R6W-EOP	8/27/2021 10:25	AER547	M	C163144	7.76	891	580	1.5	268	243	118	<1.0	143	<1.0	<1.0	38.0	0.322	0.502	266			0.024	0.013	0.31	0.32	<0.0030
RSEM-R6W-EOP	8/28/2021 11:10	AEV124	M	C163811	7.45	899	508	2.5	257	248	147	<1.0	179	<1.0	<1.0	32.5	0.309	0.478	283			0.048	0.011	0.28	0.29	<0.0030
RSEM-R6W-EOP	8/29/2021 10:05	AEV011	M	C163786	7.31	859	536	1.7	264	236	108	<1.0	131	<1.0	<1.0	29.3	0.311	0.407	280			0.019	0.010	0.24	0.25	<0.0030
RSEM-R6W-EOP	8/30/2021 10:15	AEX829	M	C164176	7.36	880	652	<1.0	257	254	146	<1.0	178	<1.0	<1.0	28.1	0.306	0.400	269			0.017	<0.010	0.23	0.23	<0.0030
RSEM-R6W-EOP	8/31/2021 16:45	AFA832	M	C164798	8.17	905	556	2.3	273	262	103	<1.0	126	<1.0	<1.0	26.3	0.297	0.394	300			0.026	<0.010	0.16	0.16	<0.0030
RSEM-R6W-EOP	9/1/2021 15:50	AFC995	M	C165103	7.28	929	560	2.9	289	273	108	<1.0	132	<1.0	<1.0	28.0	0.326	0.410	326			0.263	<0.010	0.18	0.18	<0.0030
RSEM-R6W-EOP	9/2/2021 11:20	AFF607	M	C165563	7.31	942	668	<1.0	285	275	110	<1.0	134	<1.0	<1.0	32.3	0.340	0.450	312			0.076	<0.010	0.14	0.14	<0.0030
RSEM-R6W-EOP	9/3/2021 11:25	AFF869	M	C165588	7.77	941	632	1.4	294	289	114	<1.0	139	<1.0	<1.0	34.1	0.324	0.476	304			0.040	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	9/4/2021 16:20	AFH289	M	C165785	7.26	919	602	2.8	304	285	112	<1.0	137	<1.0	<1.0	31.7	0.320	0.477	275			0.020	0.0054	0.110	0.115	<0.0030
RSEM-R6W-EOP	9/5/2021 14:10	AFI824	M	C166081	7.67	924	552	2.2	277	276	114	<1.0	139	<1.0	<1.0	34.4	0.304	0.520	291			<0.015	<0.010	0.065	0.065	<0.0030
RSEM-R6W-EOP	9/6/2021 12:25	AFI719	M	C166063	7.71	898	652	1.9	280	266	116	<1.0	141	<1.0	<1.0	33.5	0.299	0.460	281			0.036	<0.010	0.062	0.062	<0.0030
RSEM-R6W-EOP	9/7/2021 12:00	AFL345	M	C166557	8.35	876	596	<1.0	266	252	108	1.1	129	1.3	<1.0	31.8	0.389	0.420	274			<0.015	<0.010	0.070	0.070	<0.0030
RSEM-R6W-EOP	9/8/2021 11:20	AFO057	M	C167059	8.40	831	528	1.1	265	234	117	1.7	138	2.1	<1.0	28.8	0.221	0.411	251			0.030	<0.010	0.057	0.057	<0.0030
RSEM-R6W-EOP	9/9/2021 11:40	AFQ845	M	C167445	8.39	800	380	1.3	254	230	114	1.6	135	1.9	<1.0	27.5	0.212	0.361	238			0.078	<0.010	0.043	0.043	<0.0030
RSEM-R6W-EOP	9/10/2021 10:20	AFQ881	M	C167449	8.36	784	364	1.6	248	226	111	1.2	133	1.4	<1.0	26.4	0.206	0.349	231			0.019	<0.010	0.048	0.048	<0.0030
RSEM-R6W-EOP	9/11/2021 12:20	AFV353	M	C168029	8.30	773	464	1.2	226	208	111	<1.0	136	<1.0	<1.0	26.1	0.252	0.374	222			0.035	<0.010	0.050	0.050	<0.0030
RSEM-R6W-EOP	9/12/2021 13:20	AFV417	M	C168037	7.97	794	488	2.3	223	202	111	<1.0	136	<1.0	<1.0	27.2	0.264	0.399	227			0.028	<0.010	0.060	0.060	<0.0030
RSEM-R6W-EOP	9/13/2021 5:20	AFV244	M	C168020	7.79	789	480	<1.0	230	208	115	<1.0	140	<1.0	<1.0	28.1	0.216	0.392	254			0.023	<0.010	0.059	0.059	<0.0030
RSEM-R6W-EOP	9/14/2021 16:40	AGB016	M	C169017	8.28	764	452	1.9	200	202	128	<1.0	156	<1.0	<1.0	27.2	0.248	0.345	237			0.061	<0.010	0.055	0.055	<0.0030
RSEM-R6W-EOP	9/14/2021 16:50	AGB017	D	C169017	8.27	764	448	1.3	197	202	137	<1.0	167	<1.0	<1.0	26.2	0.248	0.364	245			<0.015	<0.010	0.056	0.056	<0.0030
RSEM-R6W-EOP	9/15/2021 10:30	AGD165	M	C169361	8.20	778	416	3.5	200	193	144	<1.0	176	<1.0	<1.0	27.9	0.252	0.341	242			0.033	<0.010	0.046	0.046	<0.0030
RSEM-R6W-EOP	9/16/2021 12:55	AGG329	M	C169805	8.23	806	500	2.9	206	206	151	<1.0	184	<1.0	<1.0	29.8	0.254	0.400	244			0.015	<0.010	0.058	0.058	<0.0030
RSEM-R6W-EOP	9/17/2021 10:50	AGG308	M	C169799	8.24	798	512	2.1	206	199	119	<1.0	146	<1.0	<1.0	30.5	0.255	0.412	241			<0.015	<0.010	0.085	0.085	0.0034
RSEM-R6W-EOP	9/18/2021 12:20	AGJ634	M	C170329	8.10	779	476	4.2	209	196	148	<1.0	181	<1.0	<1.0	29.9	0.279	0.395	204			0.069	<0.010	0.090	0.090	<0.0030
RSEM-R6W-EOP	9/19/2021 11:20	AGJ665	M	C170331	8.01	742	460	4.1	190	184	139	<1.0	169	<1.0	<1.0	27.1	0.263	0.372	194			0.020	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	9/20/2021 10:40	AGM221	M	C170680	8.14	727	448	5.1	199	182	171	<1.0	208	<1.0	<1.0	26.8	0.338	0.362	185			0.075	<0.010	0.12	0.12	<0.0030
RSEM-R6W-EOP	9/21/2021 11:20	AGO664	M	C171134	8.22	691	400	4.3	196	181	117	<1.0	142	<1.0	<1.0	25.5	0.224	0.374	189			0.018	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	9/22/2021 11:05	AGR065	M	C171568	8.21	689	420	5.5	183	175	131	<1.0	160	<1.0	<1.0	25.1	0.224	0.342	186			0.023	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	9/23/2021 16:35	AGT565	M	C171954	8.21	640	376	3.9	171	169	119	<1.0	145	<1.0	<1.0	23.1	0.218	0.310	175			<0.015	<0.010	0.092	0.092	<0.0030
RSEM-R6W-EOP	9/24/2021 12:55	AGV850	M	C172263	8.34	627	388	3.6	172	173	121	1.5	144	1.8	<1.0	22.3	0.810	0.297	174			<0.015	0.0064	0.096	0.103	<0.0030
RSEM-R6W-EOP	9/25/2021 15:55	AGX496	M	C172580	8.16	621	388	2.7	175	176	165	<1.0	202	<1.0	<1.0	22.5	0.215	0.290	162			<0.015	<0.010	0.10	0.10	<0.0030
RSEM-R6W-EOP	9/26/2021 15:30	AGX366	M	C172552	8.19	621	364	1.12	161	176	164	<1.0	201	<1.0	<1.0	21.6	0.291	0.299	158			<0.015	<0.010	0.13	0.13	<0.0030
RSEM-R6W-EOP	9/27/2021 11:40	AGZ868	M	C172958	8.17	610	376	3.09	179	179	122	<1.0	148	<1.0	<1.0	21.6	0.213	0.311	152			<0.015	<0.010	0.085	0.085	<0.0030
RSEM-R6W-EOP	9/28/2021 11:30	AHC016	M	C173431	8.21	613	388	3.6	165	180	120	<1.0	146	<1.0	<1.0	22.9	0.214	0.309	157			<0.015	<0.010	0.091	0.091	<0.0030
RSEM-R6W-EOP	9/29/2021 12:30	AHF733	M	C174181	8.18	611	320	3.2	146	155	124	<1.0	151	<1.0	<1.0	23.4	0.218	0.288	151			<0.015	<0.010	0.073	0.073	<0.0030
RSEM-R6W-EOP	9/30/2021 11:10	AHF783	M	C174188	8.14	615	360	5.3	157	178	124	<1.0	152	<1.0	<1.0	22.4	0.219	0.291	147			0.058	<0.010	0.079	0.079	<0.0030
RSEM-R6W-EOP	10/1/2021 12:30	AHF786	M	C174189	8.01	623	360	3.2	154	176	137	<1.0	167	<1.0	<1.0	25.0	0.215	0.310	153			0.051	<0.010	0.11	0.11	<0.0030
RSEM-R6W-EOP	10/2/2021 11:00	AHI563	M	C174687	8.15	624	372	2.7	153	171	145	<1.0	177	<1.0	<1.0	24.4	0.222	0.305	155			<0.015	<0.010	0.099	0.099	0.0033
RSEM-R6W-EOP	10/3/2021 12:30	AHI567	M	C174689	8.23	622	368	3.9	149	177	129	<1.0	157	<1.0	<1.0	24.0	0.231	0.311	148			<0.015	<0.010	0.094	0.094	<0.0030
RSEM-R6W-EOP	10/4/2021 8:30	AHI554	M	C174685	8.20	634	364	3.1	151	177	127	<1.0	155	<1.0	<1.0	25.5	0.225	0.307	158			<0.015	<0.010	0.083	0.083	<0.0030
RSEM-R6W-EOP	10/5/2021 14:40	AHO716	M	C175650	8.14	611	352	3.3	163	157	117	<1.0	142	<1.0	<1.0	24.8	0.251	0.317	160			<0.015	<0.010	0.073	0.073	<0.0030
RSEM-R6W-EOP	10/6/2021 11:30	AHR785	M	C176098	8.35	617	356	1.3	149	137	137	<1.0	167	<1.0	<1.0	25.0	0.254	0.315	158			<0.015	<0.010	0.088	0.088	<0.0030
RSEM-R6W-EOP	10/7/2021 17:30	AHU812	M	C176559	8.15	633	380	1.1	152	138	120	<1.0	146	<1.0	<1.0	25.4	0.199	0.330	154			<0.015	<0.010	0.083	0.083	0.0031
RSEM-R6W-EOP	10/8/2021 10:55	AHU798	M	C176557	8.16	624	368	<1.0	139	135	115	<1.0	141	<1.0	<1.0	25.7	0.198	0.354	154			<0.015	<0.010	0.066	0.066	<0.0030
RSEM-R6W-EOP	10/9/2021 12:00	AHX007	M	C176838	7.90	606	340	3.6	144	140	120	<1.0	147	<1.0	<1.0	24.1	0.240	0.330	157			<0.015	0.0061	0.082	0.088	<0.0030
RSEM-R6W-EOP	10/10/2021 12:50	AHX001	M	C176837	7.62	616	364	1.6	145	149	134	<1.0	163	<1.0	<1.0	23.7	0.240	0.328	152			0.082	0.0059	0.065	0.071	<0.0030
RSEM-R6W-EOP	10/11/2021 14:40	AHY662	M	C177084	7.43	610	356	<1.0	154	145	131	<1.0	160	<1.0	<1.0	25.0	0.205	0.278	144			<0.015	<0.010	0.067	0.067	<0.0030
RSEM-R6W-EOP	10/12/2021 16:00	AIB244	M	C177600	7.51	600	348	<1.0	144	133	127	<1.0	154	<1.0	<1.0	23.3	0.208	0.331	138			<0.015	<0.010	0.058	0.058	<0.0030
RSEM-R6W-EOP	10/13/2021 11:50	AIE376	M	C178189	7.93	591	356	2.0	139	137	125	<1.0	152	<1.0	<1.0	23.9	0.247	0.380	138			0.037	<0.010	0.050	0.050	0.0031
RSEM-R6W-EOP	10/14/2021 10:50	AIG809	M	C178651	7.93	587	332	3.51	125	124	130	<1.0	158	<1.0	<1.0	23.7	0.225	0.346	140			0.046	0.011	0.080	0.091	<0.0030
RSEM-R6W-EOP	10/15/2021 11:20	AII742	M	C178993	8.26	595	368	4.0	129	128	115	<1.0	140	<1.0	<1.0	23.9	0.250	0.335	141			<0.015	0.0130	0.108	0.121	<0.0030
RSEM-R6W-EOP	10/16/2021 14:30	AIL331	M	C179338	7.67	590	380	2.8	116	116	132	<1.0	161	<1.0	<1.0	27.3	0.266	0.337	148			0.025	0.016	0.13	0.15	<0.0030
RSEM-R6W-EOP	10/17/2021 14:30	AIL270	M	C179325	7.80	601	380	1.13	113	117	127	<1.0	155	<1.0	<1.0	27.1	0.237	0.357	148			0.020	0.017	0.16	0.18	<0.0030
RSEM-R6W-EOP	10/18/2021 10:05	AIL343	M	C179344	7.81	599	368	<1.0	115	116	127	<1.0	155	<1.0	<1.0	26.7	0.230	0.349	145			0.023	0.016	0.17	0.18	<0.0030
RSEM-R6W-EOP	10/19/2021 12:30	AIR752	M	C180384	7.95	599	348	1.71	124	118	136	<1.0	166	<1.0	<1.0	26.2	0.229	0.352	143			<0.015	0.019	0.13	0.15	<0.0030
RSEM-R6W-EOP	10/20/2021 12:30	AIT535	M	C180689	7.96	599	376	2.17	122	120	130	<1.0	158	<1.0	<1.0	23.5	0.231	0.344	137			<0.015	0.018	0.14	0.16	<0.0030
RSEM-R6W-EOP	10/21/2021 11:30	AIW013	M	C181069	7.98	586	360	2.7	119	119	123	<1.0	150	<1.0	<1.0	25.0	0.199	0.361	141			<0.015	0.017	0.15	0.17	<0.0030
RSEM-R6W-EOP	10/22/2021 10:30	AIW018	M	C181072	8.00	578	348	2.4	121	117	124	<1.0	151	<1.0	<1.0	23.6	0.199	0.350	134			0.019	0.018	0.15	0.17	<0.0030
RSEM-R6W-EOP	10/23/2021 11:00	AIZ372	M	C181550	7.75	560	320	2.5	114	114	117	<1.0	143	<1.0	<1.0	22.9	0.191	0.316	125			0.020	0.018	0.18	0.20	0.0033
RSEM-R6W-EOP	10/24/2021 11:30	AIZ352	M	C181544	7.66	529	316	2.5	121	119	120	<1.0	147	<1.0	<1.0	19.0	0.189	0.275	117			0.024	0.016	0.27	0.28	0.0033
RSEM-R6W-EOP	10/25/2021 6:00	AIZ359	M	C181547	7.64	522	316	4.4	118	121	121	<1.0	148	<1.0	<1.0	18.8	0.195	0.259	115			0.023	0.014	0.32	0.33	0.0031

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	10/26/2021 10:40	AJF138	M	C182473	7.62	519	304	2.17	130	129	124	<1.0	151	<1.0	<1.0	17.0	0.196	0.264	112			0.025	0.016	0.25	0.27	<0.0030
RSEM-R6W-EOP	10/27/2021 14:40	AJH725	M	C182990	7.76	517	328	2.3	128	135	127	<1.0	155	<1.0	<1.0	17.4	0.199	0.238	111			<0.015	0.016	0.31	0.32	<0.0030
RSEM-R6W-EOP	10/28/2021 15:50	AJL909	M	C183658	8.03	511	316	2.2	137	131	132	<1.0	161	<1.0	<1.0	15.7	0.211	0.188	104			<0.015	0.010	0.29	0.30	<0.0030
RSEM-R6W-EOP	10/29/2021 11:20	AJL061	M	C183557	7.91	502	320	6.4	150	136	135	<1.0	165	<1.0	<1.0	14.6	0.197	0.209	101			<0.015	0.013	0.29	0.30	0.0031
RSEM-R6W-EOP	10/30/2021 12:10	AJO164	M	C184013	8.17	511	312	3.8	155	147	147	<1.0	179	<1.0	<1.0	14.0	0.118	0.174	98.6			<0.015	0.012	0.27	0.28	0.0033
RSEM-R6W-EOP	10/31/2021 11:50	AJO161	M	C184012	8.22	525	320	3.51	153	149	144	<1.0	176	<1.0	<1.0	14.1	0.116	0.204	102			<0.015	0.012	0.28	0.29	0.0033
RSEM-R6W-EOP	11/1/2021 14:30	AJS228	M	C184600	8.16	527	308	3.83	163	152	149	<1.0	182	<1.0	<1.0	15.0	0.114	0.172	105			<0.015	0.012	0.29	0.30	0.0031
RSEM-R6W-EOP	11/2/2021 14:55	AJU790	M	C184881	8.17	542	316	1.84	171	166	155	<1.0	189	<1.0	<1.0	15.1	0.153	0.194	105			<0.015	0.010	0.31	0.32	<0.0030
RSEM-R6W-EOP	11/3/2021 12:30	AJX284	M	C185315	8.07	524	324	2.3	172	162	144	<1.0	176	<1.0	<1.0	14.3	0.202	0.187	106			0.019	<0.010	0.26	0.26	0.0031
RSEM-R6W-EOP	11/4/2021 11:05	AKA062	M	C185756	8.13	524	320	2.11	180	163	145	<1.0	177	<1.0	<1.0	13.4	0.195	0.175	102			0.015	<0.010	0.28	0.28	<0.0030
RSEM-R6W-EOP	11/5/2021 11:25	AKA066	M	C185757	8.11	515	312	1.56	182	169	148	<1.0	181	<1.0	<1.0	13.5	0.187	0.170	99.8			<0.015	0.010	0.26	0.27	<0.0030
RSEM-R6W-EOP	11/6/2021 11:05	AKD993	M	C186250	7.99	517	304	2.0	178	171	144	<1.0	176	<1.0	<1.0	14.2	0.182	0.171	98.8			<0.015	<0.010	0.28	0.28	0.0035
RSEM-R6W-EOP	11/7/2021 10:55	AKE000	M	C186252	8.02	524	312	1.6	180	170	146	<1.0	178	<1.0	<1.0	13.9	0.181	0.217	103			<0.015	0.010	0.26	0.27	0.0033
RSEM-R6W-EOP	11/8/2021 10:40	AKD975	M	C186247	8.07	548	328	2.7	176	165	144	<1.0	176	<1.0	<1.0	15.7	0.185	0.234	108			<0.015	0.012	0.26	0.27	0.0035
RSEM-R6W-EOP	11/9/2021 12:00	AKJ863	M	C187047	8.14	567	348	2.7	168	161	146	<1.0	178	<1.0	<1.0	16.9	0.195	0.282	118			0.020	0.014	0.22	0.23	<0.0030
RSEM-R6W-EOP	11/10/2021 12:30	AKN275	M	C187468	7.97	578	360	1.58	157	148	134	<1.0	164	<1.0	<1.0	20.9	0.217	0.291	122			0.019	0.020	0.31	0.33	<0.0030
RSEM-R6W-EOP	11/11/2021 11:00	AKN228	M	C187460	8.03	584	368	2.57	161	149	138	<1.0	168	<1.0	<1.0	21.2	0.218	0.328	122			0.022	0.021	0.33	0.35	<0.0030
RSEM-R6W-EOP	11/12/2021 11:00	AKN247	M	C187463	7.95	594	364	2.5	149	145	136	<1.0	166	<1.0	<1.0	22.7	0.220	0.371	128			0.018	0.022	0.33	0.35	<0.0030
RSEM-R6W-EOP	11/13/2021 11:00	AKS760	M	C188237	7.88	604	360	2.9	144	139	135	<1.0	165	<1.0	<1.0	23.0	0.211	0.353	126			0.029	0.024	0.28	0.31	0.0032
RSEM-R6W-EOP	11/14/2021 11:00	AKS791	M	C188243	7.93	606	336	2.3	148	140	135	<1.0	164	<1.0	<1.0	23.0	0.216	0.354	129			0.032	0.022	0.27	0.29	<0.0030
RSEM-R6W-EOP	11/15/2021 6:30	AKS805	M	C188248	7.95	619	384	1.32	147	138	132	<1.0	161	<1.0	<1.0	24.4	0.222	0.383	136			0.032	0.025	0.31	0.34	0.0031
RSEM-R6W-EOP	11/16/2021 15:00	AKV420	M	C188704	7.85	636	384	2.04	142	134	128	<1.0	156	<1.0	<1.0	26.4	0.241	0.392	144			0.041	0.032	0.35	0.38	<0.0030
RSEM-R6W-EOP	11/17/2021 11:15	AKY310	M	C189131	7.79	663	400	3.0	118	138	127	<1.0	155	<1.0	<1.0	27.5	0.258	0.411	157			0.072	0.039	0.38	0.42	0.0050
RSEM-R6W-EOP	11/18/2021 10:50	AKZ642	M	C189345	7.63	662	420	4.93	115	139	125	<1.0	152	<1.0	<1.0	29.4	0.235	0.382	151			0.086	0.046	0.41	0.45	0.0034
RSEM-R6W-EOP	11/19/2021 10:55	AKZ639	M	C189344	7.86	697	324	4.7	119	135	130	<1.0	159	<1.0	<1.0	29.1	0.234	0.445	161			0.092	0.040	0.43	0.47	0.0030
RSEM-R6W-EOP	11/20/2021 10:30	ALR016	M	C192879	7.54	684	435	3.84	205	153	124	<1.0	152	<1.0	<1.0	29.9	0.235	0.413	169			0.091	0.051	0.41	0.46	<0.0030
RSEM-R6W-EOP	11/21/2021 10:10	ALT348	M	C193212	7.41	689	415	4.14	178	154	127	<1.0	155	<1.0	<1.0	30.4	0.228	0.417	169			0.107	0.053	0.43	0.49	<0.0030
RSEM-R6W-EOP	11/22/2021 10:55	ALQ581	M	C192775	7.61	703	424	3.2	166	118	128	<1.0	156	<1.0	<1.0	32.4	0.234	0.459	166			0.120	0.055	0.43	0.49	<0.0030
RSEM-R6W-EOP	11/23/2021 10:15	ALN437	M	C192217	7.86	818	432	4.2	153	172	132	<1.0	161	<1.0	<1.0	30.8	0.214	0.432	169			0.113	0.055	0.45	0.51	<0.0030
RSEM-R6W-EOP	11/24/2021 10:45	ALQ703	M	C192806	7.37	687	436	6.91	114	115	131	<1.0	160	<1.0	<1.0	33.3	0.235	0.463	163			0.131	0.057	0.45	0.51	<0.0030
RSEM-R6W-EOP	11/25/2021	FJ2101334-002	M	FJ2101334	8.01	704	376	6.5	122	127	142	<1.0	174	<1.0	<1.0	32.1	0.231	0.478	168			0.164	0.0511	0.398	0.449	<0.0010
RSEM-R6W-EOP	11/26/2021 10:20	FJ2101337-003	M	FJ2101337	7.70	696	428	4.4	123	120		<1.0	178	<1.0	<1.0	31.8	0.254	0.430	165			0.128	0.0506	0.386	0.437	<0.0010
RSEM-R6W-EOP	11/27/2021 11:00	FJ2101340-002	M	FJ2101340	7.76	697	424	4.6	122	121	154	<1.0	187	<1.0	<1.0	32.0	0.269	0.463	165			0.132	0.0475	0.390	0.438	<0.0010
RSEM-R6W-EOP	11/28/2021 10:20	FJ2101338-003	M	FJ2101338	7.80	695	429	4.4	122	121	151	<1.0	184	<1.0	<1.0	32.2	0.261	0.451	164			0.134	0.0499	0.385	0.435	<0.0010
RSEM-R6W-EOP	11/29/2021 9:55	FJ2101339-002	M	FJ2101339	7.87	708	444	3.0	125	129		<1.0	196	<1.0	<1.0	32.4	0.275	0.490	168			0.129	0.0429	0.400	0.443	<0.0010
RSEM-R6W-EOP	11/30/2021 13:00	FJ2101361-002	M	FJ2101361	7.81	747	448	3.6	124	125	160	<1.0	195	<1.0	<1.0	33.3	0.304	0.465	174			0.114	0.0408	0.426	0.467	0.0017
RSEM-R6W-EOP	12/1/2021 13:00	FJ2101362-002	M	FJ2101362	7.66	729	434	2.3	135	124	154	<1.0	188	<1.0	<1.0	32.0	0.292	0.433	166			0.115	0.0493	0.385	0.434	0.0013
RSEM-R6W-EOP	12/2/2021 12:30	FJ2101375-002	M	FJ2101375	8.08		439	3.8	122	127	163	<1.0	199	<1.0	<1.0	33.4	0.277	0.448	168			0.136	0.0435	0.414	0.458	0.0017
RSEM-R6W-EOP	12/3/2021 12:00	FJ2101374-002	M	FJ2101374	8.16		431	4.1	128	131	185	<1.0	226	<1.0	<1.0	32.7	0.266	0.475	167			0.115	0.0448	0.398	0.443	<0.0010
RSEM-R6W-EOP	12/4/2021 12:00	FJ2101385-002	M	FJ2101385	7.72	778	437	4.3	130	138	174	<1.0	213	<1.0	<1.0	33.1	0.267	0.511	172			0.127	0.0424	0.398	0.440	0.0011
RSEM-R6W-EOP	12/5/2021 12:00	FJ2101386-002	M	FJ2101386	7.82	805	445	6.6	134	144	182	<1.0	221	<1.0	<1.0	33.8	0.279	0.500	176			0.120	0.0432	0.399	0.442	0.0011
RSEM-R6W-EOP	12/6/2021 6:00	FJ2101387-001	M	FJ2101387	7.77	774	455	6.4	136	142	171	<1.0	209	<1.0	<1.0	34.0	0.281	0.580	178			0.0926	0.0417	0.385	0.427	0.0024
RSEM-R6W-EOP	12/7/2021 10:30	FJ2101420-001	M	FJ2101420	8.08	784	464	4.4	150	150	191	<1.0	232	<1.0	<1.0	33.4	0.229	0.369	175			0.128	0.0386	0.394		<0.0010
RSEM-R6W-EOP	12/8/2021 11:20	FJ2101419-002	M	FJ2101419	8.19	797	495	4.1	151	146	202	<1.0	246	<1.0	<1.0	34.6	0.232	0.379	179			0.145	0.0353	0.405	0.440	<0.0010
RSEM-R6W-EOP	12/9/2021 10:25	FJ2101442-003	M	FJ2101442	8.22	789	462	3.9	159	144	181	<1.0	220	<1.0	<1.0	35.0	0.290	0.500	180			0.132	0.0400	0.386	0.426	0.0010
RSEM-R6W-EOP	12/10/2021 10:55	FJ2101436-002	M	FJ2101436	8.21	797	475	3.9	152	144	182	<1.0	221	<1.0	<1.0	35.0	0.302	0.503	178			0.145	0.0442	0.382	0.426	<0.0010
RSEM-R6W-EOP	12/11/2021 14:00	FJ2101439-003	M	FJ2101439	8.17	809	522	4.9	161	143	185	<1.0	226	<1.0	<1.0	35.3	0.271	0.600	181			0.157	0.0430	0.383	0.426	<0.0010
RSEM-R6W-EOP	12/12/2021 11:45	FJ2101434-002	M	FJ2101434	8.04	830	497	3.6	162	156	191	<1.0	234	<1.0	<1.0	35.4	0.279	0.512	179			0.156	0.0365	0.405	0.442	<0.0010
RSEM-R6W-EOP	12/13/2021 11:20	FJ2101455-001	M	FJ2101455	8.01	861	529	5.0	174	159	200	<1.0	244	<1.0	<1.0	37.3	0.285	0.596	191			0.179	0.0403	0.436	0.476	<0.0010
RSEM-R6W-EOP	12/17/2021 11:35	FJ2101490-001	M	FJ2101490	7.65	898	540	3.8	172	181	197	<1.0	240	<1.0	<1.0	42.4	0.249	0.658	212			0.232	0.0497	0.561	0.611	<0.0010
RSEM-R6W-EOP	12/18/2021 13:30	FJ2101495-001	M	FJ2101495	7.88	924	530	5.8	178	191	197	<1.0	240	<1.0	<1.0	45.7	0.252	0.522	221			0.241	0.0491	0.656	0.705	<0.0010
RSEM-R6W-EOP	12/19/2021 11:30	FJ2101494-001	M	FJ2101494	7.81	894	536	6.4	183	197	196	<1.0	239	<1.0	<1.0	46.3	0.244	0.526	219			0.226	0.0505	0.665	0.716	<0.0010
RSEM-R6W-EOP	12/19/2021 11:40	FJ2101494-002	D	FJ2101494	7.84	903	524	6.5	176	192	196	<1.0	239	<1.0	<1.0	46.5	0.252	0.524	220			0.226	0.0509	0.671	0.722	<0.0010
RSEM-R6W-EOP	12/20/2021 10:25	FJ2101496-001	M	FJ2101496	7.86	886	543	4.7	184	196	204	<1.0	249	<1.0	<1.0	46.8	0.216	0.516	215			0.202	0.0512	0.666	0.717	<0.0010
RSEM-R6W-EOP	12/21/2021 11:00	FJ2101514-004	M	FJ2101514	7.63	938	645	2.0	183	196	190	<1.0	231	<1.0	<1.0	44.8	0.285	0.588	205			0.218	0.0524	0.634	0.686	<0.0010
RSEM-R6W-EOP	12/22/2021 6:00	FJ2101508-002	M	FJ2101508	7.92	902	543	3.1	192	187	194	<1.0	236	<1.0	<1.0	46.4	0.228	0.509	213			0.206	0.0480	0.652	0.700	<0.0010
RSEM-R6W-EOP	12/23/2021 11:00	FJ2101512-001	M	FJ2101512	7.94	944	541	4.0	189	194	192	<1.0	234	<1.0	<1.0	46.2	0.299	0.608	211			0.217	0.0528	0.741	0.794	0.0025
RSEM-R6W-EOP	12/24/2021 11:45	FJ2101513-001	M	FJ2101513	7.52	928	609	2.4	186	209	275	<1.0	335	<1.0	<1.0	46.5	0.296	0.608	212			0.218	0.0548	0.646	0.701	0.0023
RSEM-R6W-EOP	12/25/2021 11:00	FJ2101514-001	M	FJ2101514	7.89	938	606	3.5	192	216	197	<1.0	240	<1.0	<1.0	47.5	0.299	0.602	215			0.225	0.0519	0.668	0.720	0.0011
RSEM-R6W-EOP	12/26/2021 13:45	FJ2101514-002	M	FJ2101514	7.45	943	558	5.9	191	211	266	<1.0	325	<1.0	<1.0	42.4	0.260	0.532	190			0.227	0.0537	0.587	0.641	0.0014
RSEM-R6W-EOP	12/27/2021 10:45	FJ2101514-003	M	FJ2101514	7.64	954	598	4.6	197	190	193	<1.0	235	<1.0	<1.0	48.6	0.293	0.611	217			0.194	0.0583	0.669	0.727	<0.0010
RSEM-R6W-EOP	12/28/2021 11:15	FJ2101525-001	M	FJ2101525	7.26	914	581	3.0	184	186		<1.0				46.6	0.266	0.617	213			0.214	0.0492	0.641		0.0026
RSEM-R6W-EOP	12/29/2021 11:20	FJ2101526-001	M	FJ2101526	7.36	866	549	2.9	178	174		<1.0				43.1	0.233	0.507	197			0.199	0.0399	0.565		0.0016
RSEM-R6W-EOP	12/31/2021 12:00	FJ2200025-001	M	FJ2200025	7.35	863	527	3.6	177	179		<1.0				44.0	0.234	0.545	200			0.228	0.0399	0.576		0.0012
RSEM-R6-WP-C	12/29/2021 15:30	FJ2101526-003	M	FJ2101526	6.90	1150	759	2.8	250	237		<1.0				64.7	0.321	0.756	281			0.256	0.0630	0.740		0.0010
RSEM-R6-WP-E	12/29/2021 15:00	FJ2101526-002	M	FJ2101526	7.10	877	554	3.1	185	175		<1.0				44.8	0.240	0.567	203			0.212	0.0431	0.584		0.0017
RSEM-R6W-SP	2/5/2021 14:00	ZH1014	M	C107964	8.00	1360	836	2.5	233	236	162	<1.0	197	<1.0	<1.0	122	0.292	0.858	428			0.100	0.052	0.555	0.607	<0.0030

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
					pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	4/15/2021 17:20	ZQ1506	M	C124804	8.15	604	334	10.5	160	158	155	<1.0	189	<1.0	<1.0	14.5	0.189	0.189	137			0.263	0.011	0.14	0.15	<0.0030
RSEM-R6W-SP	4/16/2021 11:00	ZQ1482	M	C124799	8.18	600	351	12.1	165	159	152	<1.0	185	<1.0	<1.0	13.9	0.185	0.181	135			0.288	0.012	0.12	0.13	<0.0030
RSEM-R6W-SP	12/14/2021 11:45	FJ2101469-001	M	FJ2101469	7.84	909	528	6.0	174	181	217	<1.0	265	<1.0	<1.0	41.1	<1.0	<5.0	206			0.197	<0.10	0.57		0.0011
RSEM-R6W-SP	12/14/2021 11:55	FJ2101469-002	D	FJ2101469	7.55	910	519	8.0	176	178	206	<1.0	251	<1.0	<1.0	42.1	<1.0	<5.0	211			0.196	<0.10	0.52		0.0013
RSEM-R6W-SP	12/15/2021 13:45	FJ2101472-001	M	FJ2101472	8.03	986	559	4.6	198	209	235	<1.0	287	<1.0	<1.0	43.6	0.330	0.610	219			0.212	0.0328	0.571	0.604	<0.0010
RSEM-R6W-SP	12/16/2021 10:25	FJ2101483-001	M	FJ2101483	8.01	965	565	2.3	196	190	232	<1.0	283	<1.0	<1.0	42.8	0.311	0.606	213			0.211	0.0303	0.548	0.578	<0.0010
SeptimusBeaverPond	10/15/2021 14:25	AII746	M	C178993	8.21	647	488	19.6	332	341	217	<1.0	264	<1.0	<1.0	23.4	0.200	0.326	90.3			<0.015	<0.0050	<0.020	<0.020	0.0043
SeptimusBeaverPond	10/15/2021 14:35	AII747	M	C178993	8.23	645	474	11.2	346	340	218	<1.0	266	<1.0	<1.0	23.5	0.190	0.332	92.1			0.018	<0.0050	<0.020	<0.020	<0.0030
SeptimusBeaverPond	10/15/2021 14:45	AII748	M	C178993	8.28	642	468	6.8	330	337	223	<1.0	272	<1.0	<1.0	23.6	0.190	0.318	83.5			<0.015	<0.0050	<0.020	<0.020	<0.0030
SeptimusBeaverPond	10/15/2021 15:15	AII749	M	C178993	8.22	643	476	12.0	335	333	222	<1.0	271	<1.0	<1.0	23.6	0.190	0.318	93.7			0.015	<0.0050	<0.020	<0.020	<0.0030
SeptimusBeaverPond	10/15/2021 15:25	AII750	M	C178993	8.27	582	390	6.4	312	317	276	<1.0	336	<1.0	<1.0	11.3	0.170	0.154	18.4			<0.015	<0.0050	<0.020	<0.020	0.0032
SeptimusBeaverPond	10/15/2021 15:35	AII751	M	C178993	8.26	629	424	3.6	333	338	268	<1.0	327	<1.0	<1.0	19.0	0.190	0.265	41.6			<0.015	<0.0050	<0.020	<0.020	<0.0030
SeptimusBeaverPond	10/15/2021 15:40	AII752	M	C178993	8.24	657	500	8.4	342	348	230	<1.0	280	<1.0	<1.0	23.1	0.190	0.323	97.9			0.071	<0.0050	<0.020	<0.020	0.0052
SeptimusBeaverPond	10/15/2021 15:50	AII753	M	C178993	8.35	689	506	5.2	358	365	234	2.8	279	3.3	<1.0	30.1	0.200	0.409	87.8			<0.015	<0.0050	<0.020	<0.020	<0.0030
South_Crusher_Sump	11/3/2021 16:00	AJX286	M	C185315	7.90	378	224	1.3	185	177	150	<1.0	183	<1.0	<1.0	7.41	0.174	0.029	34.9			<0.015	<0.010	0.98	0.98	0.0036
WP-DS	1/13/2021 13:35	ZD9434	M	C102840	7.82	323	180	3.3	155	158	145	<1.0	176	<1.0	<1.0	3.57	0.086	0.029	15.7			<0.015	<0.010	0.144	0.144	0.0031
WP-DS	3/18/2021 12:30	ZM8663	M	C118036	8.19	336	172	<1.0	156	157	150	<1.0	183	<1.0	<1.0	5.11	0.100	0.053	18.5			<0.015	<0.010	0.12	0.12	<0.0030
WP-DS	4/29/2021 11:50	ZS2244	M	C128572	8.22	280	172	3.5	139	131	129	<1.0	157	<1.0	<1.0	3.65	0.089	0.027	12.8			0.030	<0.010	0.30	0.30	<0.0030
WP-DS	6/24/2021 14:31	AAP490	M	C144894	7.81	158	112	26.0	85.4	101	89.6	<1.0	109	<1.0	<1.0	0.71	<0.050	<0.010	6.0			0.028	<0.010	0.027	0.027	0.0034
WP-DS	7/24/2021 13:55	ACO184	M	C153467	8.20	262	152	1.0	126	125	133	<1.0	162	<1.0	<1.0	2.87	0.071	0.013	12.4			<0.015	<0.010	0.10	0.10	<0.0030
WP-DS	8/28/2021 14:04	AEV017	M	C163786	7.52	311	186	2.24	156	151	146	<1.0	179	<1.0	<1.0	3.46	0.098	0.041	14.3			0.027	<0.010	0.12	0.12	<0.0030
WP-DS	9/18/2021 14:00	AGJ640	M	C170329	8.09	305	176	<1.0	162	155	136	<1.0	166	<1.0	<1.0	3.43	0.090	0.022	15.1			0.054	<0.010	0.095	0.095	<0.0030
WP-DS	10/9/2021 14:05	AHW996	M	C176835	7.66	221	128	8.0	109	111	111	<1.0	135	<1.0	<1.0	1.33	0.062	<0.010	10.5			<0.015	<0.0050	0.154	0.154	<0.0030
WP-DS	11/6/2021 14:20	AKD977	M	C186247	8.09	218	116	1.3	111	104	100	<1.0	122	<1.0	<1.0	1.30	<0.050	<0.010	9.9			<0.015	<0.010	0.14	0.14	0.0032
WP-US	3/18/2021 12:00	ZM8662	M	C118036	8.16	328	161	<1.0	156	159	147	<1.0	179	<1.0	<1.0	5.56	0.094	0.049	18.4			0.016	<0.010	0.13	0.13	<0.0030
WP-US	4/29/2021 12:20	ZS2243	M	C128572	8.18	281	144	5.0	138	130	128	<1.0	156	<1.0	<1.0	3.68	0.085	0.028	13.1			0.033	<0.010	0.31	0.31	<0.0030
WP-US	6/24/2021 14:13	AAP491	M	C144894	7.86	159	120	24.5	123	102	95.3	<1.0	116	<1.0	<1.0	0.52	<0.050	<0.010	5.9			0.016	<0.010	0.035	0.035	0.0034
WP-US	7/24/2021 13:34	ACO183	M	C153467	8.15	266	116	10.0	127	127	133	<1.0	162	<1.0	<1.0	2.62	0.131	0.014	13.4			0.077	<0.010	0.066	0.066	<0.0030
WP-US	8/28/2021 13:14	AEV016	M	C163786	7.49	318	171	2.0	149	144	141	<1.0	172	<1.0	<1.0	4.06	0.085	0.028	19.1			<0.015	<0.010	0.16	0.16	<0.0030
WP-US	9/18/2021 12:15	AGJ639	M	C170329	8.07	302	172	1.6	158	154	136	<1.0	166	<1.0	<1.0	3.47	0.088	0.023	15.5			0.017	<0.010	0.15	0.15	<0.0030
WP-US	10/9/2021 12:45	AHW995	M	C176835	7.65	218	132	9.2	106	110	110	<1.0	134	<1.0	<1.0	1.38	0.060	<0.010	10.8			<0.015	<0.0050	0.156	0.156	<0.0030
WP-US	11/6/2021 12:06	AKD976	M	C186247	8.13	214	116	3.1	107	102	97.7	<1.0	119	<1.0	<1.0	1.35	<0.050	<0.010	9.7			<0.015	<0.010	0.16	0.16	0.0034

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not repo

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
85-Discharge	1/23/2021 17:00	ZF1639	M	C105090																							
85-EOP	5/25/2021 14:30	ZW1247	M	C135423																							
85-EOP	11/12/2021 13:40	AKS806	M	C188248																							
85-EOP	11/13/2021 14:00	AKS761	M	C188237																							
85-EOP	11/14/2021 15:00	AKS792	M	C188243																							
85-EOP	11/15/2021 9:30	AKY314	M	C189131																							
85-IDZ	1/23/2021 17:00	ZF1642	M	C105090																							
85-IDZ	5/25/2021 15:00	ZW1248	M	C135423																							
85-IDZ	11/13/2021 14:30	AKS762	M	C188237																							
85-IDZ	11/14/2021 15:30	AKS793	M	C188243																							
85-IDZ	11/15/2021 9:00	AKY313	M	C189131																							
85-US	5/25/2021 15:20	ZW1249	M	C135423																							
AC_E_HAIRPIN_DITCH	3/17/2021 12:25	ZM7314	M	C117752	4.40	3.48	24	<0.0025	0.0137	1.42	0.00152	<0.005	<0.25	0.00229	120	0.0498	0.0268	0.0769	72.1	0.0327	0.03	24.2	1.98	0.000123	<0.005	0.084	
AC-E-Hairpin-Sump	7/25/2021 13:00	ACO187	M	C153467	0.62	0.62	0.0473	<0.0005	0.00042	0.028	<0.0001	<0.001	0.491	0.000135	135	<0.001	0.00148	0.00123	0.181	<0.0002	0.0559	39.6	0.0798	<0.0000019	0.0032	0.0113	
AC-E-HP-BT	6/19/2021 13:30	AAF586	M	C143352	1.29	1.19	0.419	<0.0005	0.00076	0.055	<0.0001	<0.001	0.461	0.000081	127	0.0018	0.00087	0.00163	0.919	0.00048	0.0445	36.1	0.0663	0.000004	0.0035	0.0095	
AC-E-Sump	3/20/2021 13:25	ZN1533	M	C118497	6.89	5.47	0.546	0.00057	0.0008	0.0758	<0.0001	<0.001	<0.05	0.000187	77.1	0.0037	0.0059	0.00281	0.678	0.00032	0.0239	13.5	0.182	0.0000035	0.0082	0.0281	
AC-E-Sump	6/19/2021 13:40	AAF587	M	C143352	4.08	3.90	0.406	<0.0025	0.0013	0.0728	<0.0005	<0.005	0.531	0.000118	139	0.0129	0.0066	0.0034	0.538	<0.001	0.129	47.7	0.242	0.0000037	0.0211	0.0346	
AC-E-Sump	9/29/2021 17:00	AHF737	M	C174181	4.06	3.71	0.17	0.00117	0.00075	0.0439	<0.0001	<0.001	0.564	0.000068	189	0.0023	0.00201	0.00268	0.111	<0.0002	0.0701	71.3	0.0817	<0.0000019	0.0207	0.0112	
AC-W-Hairpin-Sump	5/20/2021 13:15	ZV5700	M	C134406	1.23	0.97	0.0254	<0.0005	0.00021	0.0559	<0.0001	<0.001	<0.05	0.000037	120	<0.001	0.00023	0.0006	0.059	<0.0002	0.0157	37.9	0.0073	<0.0000019	0.002	0.0023	
AC-W-Sump	3/17/2021 12:55	ZM7315	M	C117752	9.46	8.66	8.03	<0.0025	0.00871	0.48	0.00079	<0.005	<0.25	0.00308	123	0.0146	0.0632	0.0403	22	0.0085	0.08	36.6	1.19	0.0000276	0.0057	0.22	
Area_23_BT	10/30/2021 13:10	AJO166	M	C184013	1.07	0.96	7.29	0.0015	0.01	1.25	0.00041	<0.002	<0.1	0.000329	81.5	0.0132	0.00655	0.0199	18.4	0.00837	0.0351	23.0	0.26	0.0000336	0.0099	0.0208	
Area_23_BT	11/2/2021 11:30	AJU793	M	C184881	<2.5	1.19	24.4	0.00344	0.0338	13.5	0.00166	<0.001	0.126	0.00151	163	0.0452	0.0338	0.138	85	0.0524	0.0676	38.7	1.56	0.000143	0.0086	0.0998	
Area_23_BT	11/25/2021	FJ2101334-005	M	FJ2101334	1.88	1.20	1.01	0.00203	0.00247	0.707	0.000106	<0.000050	0.140	0.0000372	54.5	0.00141	0.00152	0.00212	1.31	0.000714	0.0719	18.8	0.0290	<0.0000500	0.0277	0.0110	0.182
Area_30_EOP	4/3/2021 15:50	ZO6454	M	C121575	3.49	3.41	0.543	<0.0005	0.0004	0.0356	<0.0001	<0.001	<0.05	0.000022	60.7	0.0011	0.00041	0.0014	0.482	0.00025	0.0057	21.2	0.116	0.0000026	0.0032	0.0023	
Area_30_EOP	5/22/2021 13:05	ZV6992	M	C134601	8.36	8.12	0.0597	<0.0005	0.00061	0.0747	<0.0001	<0.001	<0.05	0.000012	270	<0.001	0.00035	0.00151	0.1	<0.0002	0.0145	86.4	0.0247	<0.0000019	0.0089	0.0046	
Area_30_EOP	7/18/2021 11:00	ACC419	M	C151549	8.45	8.63	0.085	<0.0005	0.00067	0.0943	<0.0001	<0.001	0.058	0.00004	449	0.0032	0.00032	0.0018	0.175	<0.0002	0.0214	156	0.0814	<0.0000019	0.0101	0.0085	
Area_30_EOP	7/22/2021 15:55	ACL552	M	C152988	5.21	5.96	0.0299	<0.0005	0.00031	0.0607	<0.0001	<0.001	0.054	<0.00001	270	<0.001	<0.0002	0.001	0.05	<0.0002	0.0114	54.1	0.0052	<0.0000019	0.0092	0.003	
Area_30_EOP	8/7/2021 13:30	ADM462	M	C157545	3.93	3.71	0.0503	<0.0005	0.00032	0.0896	<0.0001	<0.001	<0.05	0.000028	280	0.0066	0.00022	0.00122	0.124	<0.0002	0.0097	64.5	0.0066	<0.0000019	0.0123	0.0037	
Area_30_EOP	10/7/2021 14:55	AHU815	M	C176559	5.00	4.03	0.264	<0.0005	0.00057	0.05	<0.0001	<0.001	<0.05	0.000028	490	<0.001	0.00048	0.00159	0.562	0.00029	0.0159	162	0.0257	0.0000027	0.0076	0.0051	
Area_30_SP	6/10/2021 15:40	ZY8803	M	C140527	6.24	6.62	0.062	<0.0005	0.00055	0.0739	<0.0001	<0.001	<0.05	<0.00001	269	<0.001	0.00027	0.00143	0.096	<0.0002	0.0149	87.1	0.0057	<0.0000019	0.0115	0.0023	
Area_30_SP	8/22/2021 15:30	AEI416	M	C161433	3.44	2.82	1.61	<0.0005	0.00091	0.0779	<0.0001	<0.001	<0.05	0.000063	143	0.0028	0.00092	0.0028	1.99	0.001	0.0077	34.7	0.0528	0.0000026	0.0083	0.0051	
Area_30_SP	9/15/2021 12:35	AGD171	M	C169361	4.34	4.17	0.115	<0.0005	0.00043	0.0439	<0.0001	<0.001	<0.05	0.000023	460	<0.001	0.0003	0.00123	0.262	<0.0002	0.0157	145	0.0143	<0.0000019	0.0118	0.0047	
Area_30_SP	10/15/2021 14:15	AII745	M	C178993	5.66	5.68	0.491	<0.001	0.00071	0.0468	<0.0002	<0.002	<0.1	0.000032	477	<0.002	0.00052	0.0015	0.671	<0.0004	0.0147	135	0.0202	<0.0000019	0.0073	0.0049	
Area_30_SP	11/5/2021 12:40	AKA068	M	C185757	1.44	1.57	0.096	<0.0005	0.00018	0.0178	<0.0001	<0.001	<0.05	0.000014	65.2	<0.001	<0.0002	0.00051	0.101	<0.0002	0.0027	18.4	0.0167	0.0000022	0.0019	0.0011	
Area_A_N_Ditch	3/18/2021 9:30	ZM8872	M	C118063	9.05	6.36	0.903	<0.0005	0.00145	0.123	<0.0001	<0.001	<0.05	0.00008	28.6	0.0018	0.00117	0.00483	2.45	0.00123	0.0027	5.56	0.0739	0.0000084	0.0036	0.0043	
Area_A_N_Ditch	5/2/2021 14:00	ZS6048	M	C129102	2.78	2.62	0.426	<0.0005	0.00078	0.227	<0.0001	<0.001	<0.05	0.000027	73.8	0.0022	0.00049	0.00176	0.949	0.00046	0.0026	13.5	0.0373	0.0000051	0.0034	0.0075	
Area_A_N_Ditch	7/24/2021 13:55	ACO405	M	C153513	2.76	3.13	0.0247	<0.0005	0.00023	0.244	<0.0001	<0.001	<0.05	0.000013	78.8	<0.001	<0.0002	0.00069	0.053	<0.0002	0.0037	14.9	0.0228	<0.0000019	0.0013	<0.001	
Area_A_N_Ditch	8/29/2021 11:20	AEV015	M	C163786	2.61	2.16	0.0639	<0.0005	0.00036	0.273	<0.0001	<0.001	<0.05	0.000016	85.0	<0.001	<0.0002	0.00082	0.163	<0.0002	0.0048	16.5	0.0208	<0.0000019	0.0014	0.001	
Area_A_N_Ditch	9/20/2021 11:50	AGM224	M	C170680	2.50	2.70	0.0595	<0.0005	0.0004	0.264	<0.0001	<0.001	<0.05	0.000026	84.6	<0.001	<0.0002	0.00101	0.164	<0.0002	0.0045	18.5	0.0154	<0.0000019	0.0017	0.0012	
Area_A_N_Ditch	10/9/2021 13:50	AHX008	M	C176838	2.35	2.55	0.0732	<0.0005	0.00032	0.27	<0.0001	<0.001	<0.05	0.000022	82.4	<0.001	<0.0002	0.00075	0.157	<0.0002	0.0036	15.8	0.0086	<0.0000019	0.0015	<0.001	
Area_A_N_Ditch	10/28/2021 13:45	AJL913	M	C183658	2.37	1.92	0.0169	<0.0005	0.00019	0.236	<0.0001	<0.001	<0.05	0.000019	74.3	<0.001	<0.0002	0.00059	0.068	<0.0002	0.0041	14.0	0.0077	<0.0000019	0.0011	<0.001	
Area_A_NE_Sump	11/4/2021 14:35	AKA063	M	C185756																							
Area-A	3/19/2021 16:35	ZN1577	M	C118512	2.59	2.67	0.808	<0.0005	0.00066	0.0793	<0.0001	<0.001	<0.05	0.000037	19.8	0.0021	0.00062	0.00221	1.34	0.00063	0.0033	4.95	0.0327	0.0000035	<0.001	0.0027	
Area-A	10/6/2021 16:10	AHR789	M	C176098	1.39	1.02	0.0796	<0.0005	0.00026	0.142	<0.0001	<0.001	<0.05	0.000012	68.3	<0.001	0.00022	0.00067	0.142	<0.0002	0.0136	19.6	0.0079	0.000002	0.003	0.001	
CVC_BT	5/11/2021 12:10	ZU0200	M	C131591	15.7	14.9	0.062	<0.0025	<0.0005	0.364	<0.0005	<0.005	<0.25	<0.00005	802	0.5	0.0022	0.0132	0.675	<0.001	0.02	0.33	0.0309	0.00003	0.375	<0.005	
DC-discharge-R6-WP	4/4/2021 11:40	ZO6462	M	C121580	1.31	1.10	8.97	<0.001	0.00713	0.714	0.00058	<0.002	<0.1	0.000138	44.0	0.0135	0.00696	0.0207	11.5	0.00744	0.0264	12.7	0.118	0.0000195	0.0042	0.0185	
DC-discharge-R6-WP	4/8/2021 11:00	ZP1741	M	C122796	1.12	1.02	21.3	<0.0025	0.0179	2.31	0.00182	<0.005	<0.25	0.00048	56.0	0.0314	0.0217	0.0795	41.4	0.0279	0.068	18.7	0.391	0.000049	<0.005	0.0538	
DC-discharge-R6-WP	5/19/2021 11:55	ZV3572	M	C134016	1.43	1.20	5.94	<0.001	0.0126	0.971	0.00117	<0.002	<0.1	0.00116	85.5	0.0107	0.0229	0.0436	29.6	0.0198	0.0211	18.4	0.813	0.0000126	0.0026	0.0411	
DC-discharge-R6-WP	6/2/2021 12:35	ZX5269	M	C138096	1.98	1.65	20.9	<0.0025	0.0148	1.49	0.00137	<0.005	<0.25	0.00106	75.1	0.0356	0.0214	0.0626	45.8	0.025	0.052	19.7	0.742	0.00011	<0.005	0.0616	
DC-discharge-R6-WP	7/20/2021 15:10	ACH818	M	C152456	7.3	1.80	4.18	<0.0005	0.00407	0.359	0.00036	<0.001	<0.05	0.000208	56.6	0.0094	0.00483	0.0112	9.37	0.00422	0.0109	13.4	0.16	0.0000189	0.0037	0.0119	
Earthfill_Dam_DS_OUT	11/17/2021 11:30	AKY311	M	C189131	1.26	2.18	0.0119	<0.0005	0.00018	0.0994	<0.0001	<0.001	<0.05	<0.00001	54.6	<0.001	<0.0002	0.00168	0.026	<0.0002	0.0045	10.3	0.0084	<0.0000019	0.002	<0.001	
Earthfill_Dam_DS_OUT	11/25/2021	FJ2101334-003	M	FJ2101334	1.41	1.28	0.0092	<0.00010	0.00018	0.130	<0.000100	<0.000050	0.020	0.0000051	67.2	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	0.0055	15.7	0.00048	<0.0000050	0.00221	<0.00050	<0.050
Earthfill_Dam_DS_OUT	12/2/2021 13:00	FJ2101375-003	M	FJ2101375	1.49	1.57	0.0119	<0.00010	0.00020	0.120	<0.000100	<0.000050	0.016	0.0000062	61.1	<0.00050	<0.00010	0.00071	0.013	0.000221	0.0050	14.2	0.0106	<0.0000050	0.00215	<0.00050	<0.050
Earthfill_Dam_DS_OUT	12/7/2021 11:15	FJ2101420-002	M	FJ2101420	1.54	1.37	0.0122	<0.00010	0.00021	0.108	<0.000100	<0.000050	0.014	0.0000076	65.6	<0.00050	<0.00010	0.00096	0.011	0.000340	0.0047	13.8	0.00894	<0.0000050	0.00198	<0.00050	<0.050
Earthfill_Dam_DS_OUT	12/15/2021 11:45	FJ2101472-003	M	FJ2101472	1.37	2.08	0.0074	0.00010	0.00017	0.115	<0.000100	<0.000050	0.015	<0.0000050	62.5	<0.00050	<0.00010	0.00056	<0.010	<0.000050	0.0048	14.1	0.00959	<0.0000050	0.00197	<0.00050	<0.050
Earthfill_Dam_DS_OUT	12/23/2021 12:45	FJ2101512-002	M	FJ2101512	1.62	3.32	0.0115	<0.00010	0.00019	0.0924	<0.000100	<0.000050	0.012	<0.0000050	47.8	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	0.0034	11.1	0.00462	<0.0000050	0.00165	<0.00050	<0.050
Earthfill_Dam_DS_OUT	12/30/2021 12:15	FJ2200029-003	M	FJ2200029	1.76	2.25	0.0107	<0.00010	0.00020	0.0870	<0.000100	<0.000050	<0.010	<0.0000050	43.0	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	0.0027	9.40	0.00319	<0.0000050	0.00150	<0.00050	<0.050
Earthfill_Dam_E_BT	10/13/2021 13:00	AIE379	M	C178189	1.15	0.86	0.005	<0.0005	0.00017	0.0703	<0.0001	<0.001	<0.05	<0.00001	42.1	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0035	8.63	0.103	<0.0000019	0.0019	<0.001	
Earthfill_Dam_E_BT	10/23/2021 11:30	AIZ374	M	C181550	1.30	1.27	0.0436	<0.0005	0.00026	0.106	<0.0001	<0.001	<0.05	0.000013	56.3	<0.001	<0.0002	<0.0005	0.092	<0.0002	0.005	12.9	0.0174	<0.0000019	0.0029	<0.001	
Earthfill_Dam_E_BT	11/2/2021 15:20	AJU792	M	C184881	1.09	1.50	0.0084	<0.0005	0.00017	0.106	<0.0001	<0.001	<0.05	<0.00001	65.7	<0.001	<0.0002	<0.0005	0.019	<0.0002	0.0053	12.9	<0.001	<0.0000019	0.0025	<0.001	
Earthfill_Dam_E_BT	11/6/2021 11:40	AKD994	M	C186250	0.93	1.27	0.0159	<0.0005	0.00036	0.0953	<0.0001	<0.001	<0.05	<0.00001	56.1	<0.001	<0.0002	<0.0005	0.015	<0.0002	0.0047	11.0	0.0372	<0.0000019	0.0025	<0.001	
Earthfill_Dam_E_BT	11/7/2021 11:25	AKE004	M	C186252	0.95	1.07	0.0287	<0.0005	0.00038	0.11	<0.0001	<0.001	<0.05	<0.00001	57.1	<0.001	<0.0002	<0.0005	0.051	<0.0002	0.0053	12.2	0.0422	<0.0000019	0.0026	<0.001	
Earthfill_Dam_E_BT	11/10/2021 17:00	AKN278	M	C187468	0.80	1.11	0.0181	<0.0005	0.00027	0.103	<0.0001	<0.001	<0.05	<0.00001	60.1	<0.001	<0.0002	<0.0005	0.02	<0.0002	0.0047	11.7	0.0218	<0.0000019	0.0026	0.001	
Earthfill_Dam_E_Sump	7/4/2021 16:05	ABD995	M	C147267	2.89	1.27	0.0343	<0.0005	0.00023	0.103	<0.0001	<0.001	<0.05	0.000014	39.2	0.0013	<0.0002	0.00078	0.064	<0.0002	0.0039	10.2	0.0147	<0.0000019	0.0018	0.002	
Earthfill_Dam_E_Sump	7/8/2021 14:40	ABM762	M	C148925	1.37	0.82	0.0341	<0.0005	0.00014	0.109	<0.0001	<0.001	<0.05	<0.00001	49.1	<0.001	0.00023	0.00127	0.075	<0.0002	0.0058	11.1	0.0305	<0.0000019	0.0019	0.0035	
Earthfill_Dam_E_Sump	7/11/2021 14:30	ABP674	M	C149459	1.42	1.39	0.0558	<0.0005	0.00017	0.103	<0.0001	<0.001	<0.05	0.00001	48.4	<0.001	0.0002	<0.0005	0.055	<0.0002	0.0066	11.4	0.0291	<0.0000019	0.0021	<0.001	
Earthfill_Dam_E_Sump	7/16/2021 12:00	ABZ189	M	C151029	1.41	2.39	0.171	<0.0005	0.00019	0.0985	<0.0001	<0.001	<0.05	<0.00001	41.1	0.0012	<0.0002	0.00077	0.137	<0.0002	0.0035	10.1	0.0101	<0.0000019	0.002	0.001	
Earthfill_Dam_E_Sump	9/23/2021 17:30	AGT568	M	C171954	1.41	0.83	0.0378	<0.0005	0.00026	0.0937	<0.0001	<0.001	<0.05	0.000021	45.2	<0.001	<0.0002	<0.0005	0.14	<0.0002	0.0042	10.2	0.0902	<0.0000019	0.0028	<0.001	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Earthfill_Dam_E_Sump	9/24/2021 13:15	AGV855	M	C172263	<0.50	0.86	0.0258	<0.0005	0.00024	0.0962	<0.0001	<0.001	<0.05	0.000014	47.5	<0.001	0.00021	0.00051	0.065	<0.0002	0.0043	9.99	0.0744	<0.0000019	0.0029	<0.001	
Earthfill_Dam_E_Sump	9/25/2021 16:10	AGX499	M	C172580	1.01	1.00	0.112	<0.0005	0.00089	0.131	<0.0001	<0.001	<0.05	0.000039	47.9	<0.001	0.00042	0.00121	0.228	0.00026	0.005	11.2	0.115	<0.0000019	0.003	0.0033	
Earthfill_Dam_E_Sump	9/26/2021 16:10	AGX368	M	C172552	1.07	0.80	0.247	<0.0005	0.0005	0.107	<0.0001	<0.001	<0.05	0.000034	46.3	<0.001	0.00033	0.00072	0.57	0.00023	0.0045	11.0	0.106	<0.0000019	0.0026	0.0012	
Earthfill_Dam_E_Sump	9/27/2021 12:00	AGZ870	M	C172958	1.03	1.13	0.0897	<0.0005	0.00027	0.0966	<0.0001	<0.001	<0.05	0.000023	45.2	<0.001	<0.0002	<0.0005	0.203	<0.0002	0.0045	11.1	0.0977	<0.0000019	0.0026	<0.001	
Earthfill_Dam_E_Sump	9/28/2021 13:20	AHC018	M	C173431	1.03	<0.50	0.0344	<0.0005	0.00033	0.0926	<0.0001	<0.001	<0.05	0.000016	48.1	<0.001	<0.0002	<0.0005	0.074	<0.0002	0.0046	11.3	0.106	<0.0000019	0.0025	<0.001	
EarthfillDam-W-Sump	5/11/2021 14:50	ZU0127	M	C131574	1.37	1.29	0.675	<0.0005	0.00028	0.126	<0.0001	<0.001	<0.05	<0.00001	41.8	0.0012	0.00042	0.00086	0.351	<0.0002	0.0043	9.25	0.0045	<0.0000019	0.0016	0.0013	
EarthfillDam-W-Sump	5/12/2021 13:50	ZU2106	M	C131920	1.42	1.40	0.0156	<0.0005	0.00011	0.0756	<0.0001	<0.001	<0.05	<0.00001	37.4	<0.001	<0.0002	<0.0005	0.012	<0.0002	0.0029	8.39	0.0014	<0.0000019	0.0016	<0.001	
EarthfillDam-W-Sump	5/13/2021 13:50	ZU4966	M	C132331	1.53	1.42	0.0055	<0.0005	<0.0001	0.0625	<0.0001	<0.001	<0.05	0.00001	34.3	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0025	7.95	0.0432	<0.0000019	0.0016	<0.001	
EarthfillDam-W-Sump	6/24/2021 11:55	AAQ175	M	C144970	1.40	1.59	0.0499	<0.0005	0.00048	0.0821	<0.0001	<0.001	0.075	0.000013	67.0	<0.001	0.00022	0.00056	0.177	<0.0002	0.0154	15.6	0.0887	<0.0000019	0.0013	0.0012	
EarthfillDam-W-Sump	6/30/2021 13:15	AAZ007	M	C146528	1.43	1.23	0.0931	<0.0005	0.00039	0.135	<0.0001	<0.001	0.066	0.000017	50.6	<0.001	0.00021	<0.0005	0.077	<0.0002	0.0159	12.1	0.0272	<0.0000019	0.0026	0.0013	
EarthfillDam-W-Sump	7/1/2021 13:05	ABB249	M	C146903	1.65	1.39	0.151	<0.0005	0.0004	0.091	<0.0001	<0.001	<0.05	<0.00001	48.0	<0.001	0.00021	0.00063	0.141	<0.0002	0.0102	11.3	0.0188	<0.0000019	0.0018	0.0012	
EarthfillDam-W-Sump	7/2/2021 11:40	ABB259	M	C146905	1.38	1.27	0.126	<0.0005	0.00033	0.0887	<0.0001	<0.001	<0.05	<0.00001	46.7	<0.001	<0.0002	0.00117	0.113	<0.0002	0.0087	10.9	0.0068	<0.0000019	0.0016	0.0013	
EarthfillDam-W-Sump	7/3/2021 13:10	ABE025	M	C147272	1.38	0.93	0.105	<0.0005	0.00028	0.087	<0.0001	<0.001	<0.05	<0.00001	43.6	0.0014	0.00023	0.00182	1.14	<0.0002	0.0079	11.0	0.0146	<0.0000019	0.0018	0.0015	
EarthfillDam-W-Sump	7/4/2021 10:40	ABD990	M	C147267	2.16	1.18	0.09	<0.0005	0.00021	0.0841	<0.0001	<0.001	<0.05	<0.00001	42.3	0.0011	<0.0002	0.00066	0.21	<0.0002	0.0065	11.5	0.0065	0.0000023	0.0017	0.0012	
EarthfillDam-W-Sump	7/5/2021 11:00	ABG201	M	C147674	1.37	1.18	0.0665	<0.0005	0.0002	0.0825	<0.0001	<0.001	<0.05	0.000013	43.6	<0.001	<0.0002	0.00052	0.084	<0.0002	0.0068	10.8	0.0071	<0.0000019	0.0016	0.001	
EarthfillDam-W-Sump	7/6/2021 13:30	ABJ180	M	C148228	1.18	0.89	0.0189	<0.0005	0.00019	0.0767	<0.0001	<0.001	<0.05	<0.00001	40.1	<0.001	<0.0002	<0.0005	0.023	<0.0002	0.0057	9.60	0.0013	<0.0000019	0.0016	<0.001	
EarthfillDam-W-Sump	7/7/2021 13:30	ABK530	M	C148516	1.21	1.06	0.0559	<0.0005	0.00018	0.0821	<0.0001	<0.001	<0.05	<0.00001	41.0	<0.001	<0.0002	0.00091	0.079	<0.0002	0.0057	9.66	0.0066	<0.0000019	0.0016	0.0031	
EarthfillDam-W-Sump	7/8/2021 18:00	ABM759	M	C148925	1.65	0.89	0.252	<0.0005	0.00031	0.0973	<0.0001	<0.001	<0.05	0.000013	43.1	0.0012	0.00023	0.00077	0.181	<0.0002	0.0065	10.1	0.0144	<0.0000019	0.0018	0.0014	
EarthfillDam-W-Sump	7/9/2021 11:30	ABM746	M	C148923	1.75	0.83	0.134	<0.0005	0.00015	0.0824	<0.0001	<0.001	<0.05	<0.00001	40.9	<0.001	<0.0002	0.00104	0.108	<0.0002	0.0058	9.75	0.0138	<0.0000019	0.0016	<0.001	
EarthfillDam-W-Sump	7/10/2021 15:40	ABP526	M	C149429	1.28	1.43	0.133	<0.0005	0.00019	0.0846	<0.0001	<0.001	<0.05	<0.00001	42.0	<0.001	0.0002	0.00056	0.092	<0.0002	0.0063	9.97	0.0167	<0.0000019	0.0018	<0.001	
EarthfillDam-W-Sump	7/11/2021 14:00	ABP671	M	C149459	1.05	<0.50	<0.003	<0.0005	<0.0001	0.0689	<0.0001	<0.001	<0.05	<0.00001	39.9	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0029	9.33	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	7/12/2021 6:00	ABP852	M	C149486	1.22	1.20	0.0691	<0.0005	0.00015	0.0833	<0.0001	<0.001	<0.05	0.000011	43.1	<0.001	0.00022	0.00072	0.136	<0.0002	0.0046	10.1	0.0131	<0.0000019	0.0015	0.0025	
EarthfillDam-W-Sump	7/13/2021 16:50	ABU090	M	C150243	0.90	1.20	0.0508	<0.0005	0.00029	0.0792	<0.0001	<0.001	<0.05	<0.00001	44.5	<0.001	<0.0002	0.00053	0.049	<0.0002	0.005	10.7	0.0181	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	7/14/2021 11:50	ABX611	M	C150851	1.25	1.29	0.0053	<0.0005	<0.0001	0.0669	<0.0001	<0.001	<0.05	<0.00001	39.1	<0.001	<0.0002	0.00093	0.01	<0.0002	0.0025	8.40	0.0012	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	7/15/2021 13:20	ABY386	M	C150960	1.03	1.69	0.315	<0.0005	0.00031	0.0877	<0.0001	<0.001	<0.05	0.000014	43.7	0.001	0.0002	0.00053	0.199	<0.0002	0.005	9.66	0.0241	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	7/16/2021 11:30	ABZ185	M	C151029	1.48	1.47	0.0577	<0.0005	0.00024	0.0751	<0.0001	<0.001	<0.05	<0.00001	42.3	<0.001	<0.0002	<0.0005	0.072	<0.0002	0.0042	9.23	0.0186	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	7/16/2021 11:40	ABZ190	D	C151029	1.41	0.93	0.0623	<0.0005	0.00021	0.076	<0.0001	<0.001	<0.05	<0.00001	42.4	<0.001	<0.0002	<0.0005	0.073	<0.0002	0.0048	9.42	0.023	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	7/17/2021 13:15	ACC202	M	C151533	1.19	1.39	0.0268	<0.0005	0.00013	0.0693	<0.0001	<0.001	<0.05	<0.00001	41.2	0.0014	<0.0002	0.00072	0.016	<0.0002	0.0027	9.94	0.0019	<0.0000019	0.0015	0.0036	
EarthfillDam-W-Sump	7/18/2021 15:20	ACC414	M	C151549	1.20	1.25	0.0049	<0.0005	0.00012	0.0692	<0.0001	<0.001	<0.05	<0.00001	40.3	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0026	9.47	0.0011	<0.0000019	0.0015	0.0027	
EarthfillDam-W-Sump	7/19/2021 16:20	ACF035	M	C151946	1.47	1.87	0.003	<0.0005	<0.0001	0.0648	<0.0001	<0.001	<0.05	<0.00001	38.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0023	8.52	0.0046	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	7/20/2021 11:40	ACH812	M	C152456	1.82	2.02	0.0513	<0.0005	0.00011	0.0682	<0.0001	<0.001	<0.05	<0.00001	39.5	<0.001	<0.0002	0.00056	<0.01	<0.0002	0.0026	9.74	0.0015	0.0000028	0.0015	0.0043	
EarthfillDam-W-Sump	7/27/2021 16:30	ACT042	M	C154246	1.22	1.22	0.0033	<0.0005	<0.0001	0.076	<0.0001	<0.001	<0.05	<0.00001	41.3	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0035	8.05	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	7/30/2021 12:30	ACY655	M	C155288	0.87	1.42	<0.003	<0.0005	<0.0001	0.0866	<0.0001	<0.001	<0.05	<0.00001	41.8	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0035	9.07	<0.001	<0.0000019	0.0014	0.0021	
EarthfillDam-W-Sump	8/1/2021 15:30	ADC693	M	C155924	2.07	1.89	0.0037	<0.0005	<0.0001	0.0874	<0.0001	<0.001	<0.05	<0.00001	41.5	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0035	9.32	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/5/2021 16:20	ADK137	M	C157133	1.31	1.44	0.0057	<0.0005	<0.0001	0.0713	<0.0001	<0.001	<0.05	0.000011	41.6	<0.001	<0.0002	<0.0005	0.014	<0.0002	0.0033	10.4	0.0024	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/6/2021 11:15	ADK124	M	C157131	1.28	1.65	0.0072	<0.0005	<0.0001	0.0727	<0.0001	<0.001	<0.05	<0.00001	42.0	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0034	10.2	0.0063	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/7/2021 15:45	ADM459	M	C157545	1.80	1.34	0.0073	<0.0005	0.00011	0.0701	<0.0001	<0.001	<0.05	<0.00001	41.7	<0.001	<0.0002	<0.0005	0.012	<0.0002	0.0032	11.9	0.003	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/8/2021 15:45	ADN229	M	C157651	1.35	1.15	0.004	<0.0005	<0.0001	0.0684	<0.0001	<0.001	<0.05	<0.00001	42.5	0.0011	<0.0002	<0.0005	<0.01	<0.0002	0.0027	9.30	0.0047	<0.0000019	0.0016	<0.001	
EarthfillDam-W-Sump	8/9/2021 10:55	ADM369	M	C157523	1.37	1.30	0.0117	<0.0005	<0.0001	0.0726	<0.0001	<0.001	<0.05	<0.00001	42.2	0.005	<0.0002	<0.0005	0.043	<0.0002	0.0032	9.69	0.0026	<0.0000019	0.0016	0.0011	
EarthfillDam-W-Sump	8/10/2021 15:00	ADP901	M	C158211	1.46	1.19	<0.003	<0.0005	<0.0001	0.0858	<0.0001	<0.001	<0.05	<0.00001	47.5	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0034	8.98	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	8/11/2021 15:30	ADR990	M	C158615	1.10	1.22	<0.003	<0.0005	<0.0001	0.0916	<0.0001	<0.001	<0.05	<0.00001	48.1	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0035	9.56	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/12/2021 16:30	ADU540	M	C159104	3.66	3.31	0.0835	0.00074	0.00061	0.0395	<0.0001	<0.001	0.223	<0.00001	89.7	<0.001	<0.0002	0.00192	0.125	<0.0002	0.0568	38.0	0.0049	<0.0000019	0.0222	0.0017	
EarthfillDam-W-Sump	8/13/2021 11:20	ADU547	M	C159105	1.45	1.34	0.0035	<0.0005	0.0001	0.101	<0.0001	<0.001	<0.05	<0.00001	48.8	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0038	11.6	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	8/14/2021 17:30	ADW202	M	C159435	1.31	1.21	0.0035	<0.0005	0.00013	0.0999	<0.0001	<0.001	<0.05	<0.00001	48.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0039	11.6	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	8/15/2021 16:00	ADW429	M	C159489	1.44	1.30	0.0053	<0.0005	<0.0001	0.104	<0.0001	<0.001	<0.05	<0.00001	49.8	0.0013	<0.0002	<0.0005	<0.01	<0.0002	0.0039	11.6	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/16/2021 16:30	ADY264	M	C159861	2.38	1.66	0.0045	<0.0005	0.00014	0.111	<0.0001	<0.001	<0.05	<0.00001	52.3	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0038	11.7	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/17/2021 15:30	AED547	M	C160795	1.19	1.34	0.0074	<0.0005	0.00017	0.107	<0.0001	<0.001	<0.05	<0.00001	51.0	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0039	11.7	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/18/2021 16:30	AED518	M	C160793	0.76	1.32	<0.003	<0.0005	0.00015	0.108	<0.0001	<0.001	<0.05	<0.00001	51.0	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0038	12.2	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	8/19/2021 18:00	AEF599	M	C161077	1.46	1.71	<0.003	<0.0005	<0.0001	0.104	<0.0001	<0.001	<0.05	<0.00001	48.7	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0038	10.7	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	8/20/2021 11:50	AEF524	M	C161059	0.87	1.45	0.0032	<0.0005	0.00012	0.112	<0.0001	<0.001	<0.05	<0.00001	52.8	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0039	12.6	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	8/21/2021 17:20	AEI350	M	C161420	1.08	0.92	<0.003	<0.0005	0.00015	0.107	<0.0001	<0.001	<0.05	<0.00001	50.3	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.004	11.2	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	8/22/2021 16:30	AEI412	M	C161433	1.12	1.03	0.004	<0.0005	<0.0001	0.108	<0.0001	<0.001	<0.05	<0.00001	50.5	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0041	11.6	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	8/23/2021 14:00	AEL592	M	C161925	1.61	1.13	0.0034	<0.0005	<0.0001	0.111	<0.0001	<0.001	<0.05	<0.00001	52.3	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0041	12.4	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	8/24/2021 14:30	AEN131	M	C162291	1.59	1.44	0.0047	<0.0005	<0.0001	0.0762	<0.0001	<0.001	<0.05	<0.00001	45.1	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0034	10.6	0.003	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	8/25/2021 12:00	AEP242	M	C162703	1.16	1.57	0.0034	<0.0005	0.0002	0.115	<0.0001	<0.001	<0.05	<0.00001	52.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0042	11.4	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	8/26/2021 14:35	AER557	M	C163145	1.21	1.08	0.0034	<0.0005	0.00018	0.0773	<0.0001	<0.001	<0.05	<0.00001	44.9	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0036	10.7	0.0025	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	8/27/2021 11:15	AER548	M	C163144	1.77	1.01	0.0031	<0.0005	0.00019	0.0787	<0.0001	<0.001	<0.05	<0.00001	45.5	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0034	11.9	0.0064	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	8/28/2021 14:20	AEV128	M	C163811	1.17	1.26	<0.003	<0.0005	<0.0001	0.0677	<0.0001	<0.001	<0.05	<0.00001	45.9	0.0011	<0.0002	<0.0005	0.021	<0.0002	0.003	9.29	0.0012	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	8/29/2021 14:20	AEV012	M	C163786	1.44	1.23	<0.003	<0.0005	0.00018	0.0769	<0.0001	<0.001	<0.05	<0.00001	44.5	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0034	10.7	0.0031	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	8/30/2021 13:45	AEX833	M	C164176	<0.50	0.90	<0.003	<0.0005	<0.0001	0.0693	<0.0001	<0.001	<0.05	<0.00001	45.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.003	9.52	0.0013	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	8/31/2021 13:35	AFA833	M	C164798	1.52	<0.50	0.0034	<0.0005	<0.0001	0.0708	<0.0001	<0.001	<0.05	<0.00001	46.5	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0031	9.53	0.0031	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/1/2021 12:20	AFC992	M	C165103	1.10	1.12	<0.003	<0.0005	<0.0001	0.102	<0.0001	<0.001	<0.05	<0.00001	56.9	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0037	10.4	<0.001	<0.0000019	0.0011	<0.001	
EarthfillDam-W-Sump	9/2/2021 15:30	AFF608	M	C165563	<0.50	1.10	<0.003	<0.0005	<0.0001	0.0994	<0.0001	<0.001	<0.05	<0.00001	56.2	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0036	10.6	<0.001	<0.0000019	0.001	<0.001	
EarthfillDam-W-Sump	9/3/2021 11:40	AFF866	M	C165588	<0.50	1.21	0.012	<0.0005	<0.0001	0.107	<0.0001	<0.001	<0.05	<0.00001	55.8	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0042	11.3	<0.001	<0.0000019	0.0011	<0.001	
EarthfillDam-W-Sump	9/4/2021 12:50	AFH290	M	C165785	1.03	0.95	<0.003	<0.0005	<0.0001	0.117	<0.0001	<0.001	<0.05	<0.00001	55.7	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0039	12.2	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/5/2021 16:10	AFI821	M	C166081	1.37	1.31	0.0132	<0.0005	<0.0001	0.104	<0.0001	<0.001	<0.05	<0.00001	55.2	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0041	11.2	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/6/2021 10:40	AFI720	M	C166063	1.05	1.25	0.0046	<0.0005	<0.0001	0.124	<0.0001	<0.001	<0.05	<0.00001	56.3	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0044	12.5	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/7/2021 14:40	AFL346	M	C166557	1.52	1.41	<0.003	<0.0005	0.0001	0.122	<0.0001	<0.001	<0.05	<0.00001	55.4	<0.001	<0.0002	<0.0005	0.01	<0.0002	0.0042	12.1	<0.001	<0.0000019	0.0019	<0.001	
EarthfillDam-W-Sump	9/8/2021 14:30	AFO058	M	C167059	1.22	1.42	0.0039	<0.0005	<0.0001	0.126	<0.0001	<0.001	<0.05	<0.00001	59.1	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0042	13.8	0.001	<0.0000019	0.0012	<0.001	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EarthfillDam-W-Sump	9/9/2021 16:40	AFQ846	M	C167445	1.40	1.03	0.0039	<0.0005	0.00011	0.125	<0.0001	<0.001	<0.05	<0.00001	59.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0043	14.1	0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/10/2021 11:10	AFQ882	M	C167449	1.29	1.16	0.0044	<0.0005	<0.0001	0.123	<0.0001	<0.001	<0.05	<0.00001	58.7	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0042	13.9	0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/11/2021 4:30	AFV354	M	C168029	1.25	1.11	0.0033	<0.0005	<0.0001	0.126	<0.0001	<0.001	<0.05	<0.00001	59.5	<0.001	<0.0002	<0.0005	0.011	<0.0002	0.0046	13.8	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/12/2021 12:10	AFV418	M	C168037	1.04	1.37	0.0048	<0.0005	0.0001	0.13	<0.0001	<0.001	<0.05	<0.00001	61.7	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0045	14.0	0.0011	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/13/2021 6:00	AFV245	M	C168020	1.02	1.39	0.0073	<0.0005	0.00011	0.128	<0.0001	<0.001	<0.05	<0.00001	61.6	0.0016	<0.0002	0.00061	<0.01	<0.0002	0.0045	13.9	0.0012	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	9/16/2021 14:55	AGG331	M	C169805	1.24	1.23	0.0039	<0.0005	<0.0001	0.0839	<0.0001	<0.001	<0.05	<0.00001	51.2	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0036	12.5	0.0037	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	9/17/2021 11:45	AGG309	M	C169799	1.59	1.25	0.0041	<0.0005	<0.0001	0.0854	<0.0001	<0.001	<0.05	<0.00001	52.1	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0036	13.0	0.0014	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	9/18/2021 15:45	AGJ636	M	C170329	0.75	1.48	0.0049	<0.0005	<0.0001	0.0856	<0.0001	<0.001	<0.05	<0.00001	52.9	<0.001	<0.0002	0.00062	<0.01	<0.0002	0.004	13.7	0.0087	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	9/19/2021 13:15	AGJ666	M	C170331	0.82	1.30	0.0275	<0.0005	0.00026	0.15	<0.0001	<0.001	<0.05	0.000014	58.7	<0.001	<0.0002	<0.0005	0.043	<0.0002	0.0044	14.0	0.0078	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	9/20/2021 13:15	AGM225	M	C170680	1.55	1.82	0.0137	<0.0005	0.00017	0.0956	<0.0001	<0.001	<0.05	<0.00001	38.3	<0.001	<0.0002	0.00063	0.02	<0.0002	0.003	8.95	<0.001	<0.0000019	0.0018	<0.001	
EarthfillDam-W-Sump	9/21/2021 14:10	AGO665	M	C171134	0.79	1.53	0.0161	<0.0005	0.00019	0.136	<0.0001	<0.001	<0.05	0.000024	57.1	0.0029	<0.0002	0.00055	0.045	<0.0002	0.0044	15.0	0.0029	<0.0000019	0.0014	0.0018	
EarthfillDam-W-Sump	9/22/2021 14:20	AGR068	M	C171568	1.33	1.39	0.0087	<0.0005	<0.0001	0.134	<0.0001	<0.001	<0.05	0.000205	58.7	<0.001	<0.0002	<0.0005	0.017	<0.0002	0.0044	14.3	0.0019	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	9/23/2021 14:10	AGT566	M	C171954	1.23	1.47	0.0237	<0.0005	0.00012	0.13	<0.0001	<0.001	<0.05	0.000197	56.3	<0.001	<0.0002	<0.0005	0.022	<0.0002	0.0042	13.3	0.0034	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	9/24/2021 12:15	AGV851	M	C172263	1.04	1.42	0.0236	<0.0005	0.00012	0.135	<0.0001	<0.001	<0.05	0.000036	60.3	<0.001	<0.0002	<0.0005	0.031	<0.0002	0.0043	13.1	0.0117	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	9/25/2021 12:15	AGX497	M	C172580	1.26	1.33	0.0279	<0.0005	0.00018	0.137	<0.0001	<0.001	<0.05	0.000048	61.3	<0.001	<0.0002	0.0006	0.068	<0.0002	0.0048	14.9	0.0371	<0.0000019	0.0013	0.0013	
EarthfillDam-W-Sump	9/26/2021 10:45	AGX365	M	C172552	1.51	1.41	0.008	<0.0005	0.00014	0.129	<0.0001	<0.001	<0.05	0.000026	58.6	<0.001	<0.0002	<0.0005	0.014	<0.0002	0.0044	13.8	0.0055	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	9/27/2021 10:20	AGZ869	M	C172958	1.12	1.47	0.0105	<0.0005	0.00013	0.129	<0.0001	<0.001	<0.05	0.000025	62.1	0.0016	<0.0002	<0.0005	0.012	<0.0002	0.005	15.6	0.0012	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	9/28/2021 16:00	AHC017	M	C173431	1.16	1.30	0.0286	<0.0005	0.00017	0.135	<0.0001	<0.001	<0.05	0.000042	61.9	<0.001	<0.0002	0.00053	0.084	<0.0002	0.0055	15.4	0.0163	<0.0000019	0.0013	0.0012	
EarthfillDam-W-Sump	9/29/2021 16:30	AHF734	M	C174181	1.53	1.01	0.0137	<0.0005	0.00015	0.141	<0.0001	<0.001	0.076	0.000017	59.8	<0.001	<0.0002	<0.0005	0.019	<0.0002	0.0049	14.8	0.0018	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	9/30/2021 16:20	AHF784	M	C174188	1.35	1.17	0.0327	<0.0005	0.00016	0.148	<0.0001	<0.001	<0.05	0.000022	68.1	<0.001	<0.0002	<0.0005	0.085	<0.0002	0.0049	15.0	0.011	<0.0000019	0.0015	0.0012	
EarthfillDam-W-Sump	10/1/2021 13:00	AHF787	M	C174189	0.99	0.74	0.0429	<0.0005	0.00017	0.14	<0.0001	<0.001	<0.05	0.000023	57.3	<0.001	<0.0002	<0.0005	0.053	<0.0002	0.0048	14.1	0.0058	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	10/2/2021 14:30	AHI564	M	C174687	<0.50	1.41	0.0111	<0.0005	0.00016	0.148	<0.0001	<0.001	0.065	0.000017	59.3	<0.001	<0.0002	<0.0005	0.015	<0.0002	0.0051	14.9	0.0011	0.0000022	0.0014	<0.001	
EarthfillDam-W-Sump	10/3/2021 15:00	AHI568	M	C174689	1.72	1.20	0.0102	<0.0005	0.00014	0.141	<0.0001	<0.001	<0.05	0.000011	58.5	<0.001	<0.0002	<0.0005	0.017	<0.0002	0.0046	14.3	0.0015	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	10/4/2021 10:00	AHI555	M	C174685	1.33	1.24	0.0183	<0.0005	0.00016	0.141	<0.0001	<0.001	<0.05	0.000017	58.8	<0.001	<0.0002	<0.0005	0.029	<0.0002	0.0047	14.1	0.0065	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	10/5/2021 11:40	AHO718	M	C175650	1.77	1.15	0.0141	<0.0005	<0.0001	0.147	<0.0001	<0.001	<0.05	0.000023	62.8	<0.001	<0.0002	0.0011	0.027	<0.0002	0.0063	14.6	<0.001	<0.0000019	0.0016	0.0182	
EarthfillDam-W-Sump	10/6/2021 14:45	AHR786	M	C176098	1.42	1.55	0.0116	<0.0005	<0.0001	0.143	<0.0001	<0.001	<0.05	<0.00001	66.0	<0.001	<0.0002	<0.0005	0.011	<0.0002	0.0047	12.3	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	10/7/2021 12:10	AHU811	M	C176559	<0.50	1.09	0.0143	<0.0005	0.00011	0.136	<0.0001	<0.001	<0.05	0.000016	59.6	<0.001	<0.0002	0.00065	0.025	<0.0002	0.0061	14.0	0.0011	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	10/8/2021 11:30	AHU799	M	C176557	0.83	1.16	0.0088	<0.0005	<0.0001	0.135	<0.0001	<0.001	<0.05	0.000014	65.9	<0.001	<0.0002	<0.0005	0.01	<0.0002	0.0059	14.0	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	10/9/2021 16:40	AHX006	M	C176838	1.10	1.50	0.028	<0.0005	0.00013	0.151	<0.0001	<0.001	<0.05	0.000019	63.2	<0.001	<0.0002	<0.0005	0.051	<0.0002	0.0058	14.4	0.0042	<0.0000019	0.0016	<0.001	
EarthfillDam-W-Sump	10/10/2021 15:00	AHX002	M	C176837	1.74		0.0058	<0.0005	<0.0001	0.13	<0.0001	<0.001	<0.05	0.000015	58.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0055	13.6	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	10/11/2021 12:15	AHY661	M	C177084	1.27	0.97	0.0136	<0.0005	<0.0001	0.146	<0.0001	<0.001	<0.05	<0.00001	66.7	<0.001	<0.0002	<0.0005	0.02	<0.0002	0.0043	11.8	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	10/12/2021 11:25	AIB245	M	C177600	0.98	1.31	0.0055	<0.0005	<0.0001	0.13	<0.0001	<0.001	<0.05	0.000017	62.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0059	13.9	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	10/13/2021 14:25	AIE375	M	C178189	0.81	1.47	0.0089	<0.0005	0.0001	0.133	<0.0001	<0.001	<0.05	<0.00001	58.9	<0.001	<0.0002	<0.0005	0.01	<0.0002	0.0053	12.6	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	10/14/2021 13:50	AIG810	M	C178651	1.75	0.94	0.0054	<0.0005	<0.0001	0.132	<0.0001	<0.001	<0.05	0.000011	60.1	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0055	12.5	<0.001	<0.0000019	0.0013	<0.001	
EarthfillDam-W-Sump	10/15/2021 13:05	AII744	M	C178993	1.48	1.70	0.005	<0.0005	0.00011	0.135	<0.0001	<0.001	<0.05	0.000012	60.2	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0059	12.9	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	10/16/2021 12:25	AIL332	M	C179338	1.49	1.27	0.0058	<0.0005	<0.0001	0.128	<0.0001	<0.001	<0.05	0.000018	58.3	<0.001	<0.0002	0.00197	<0.01	<0.0002	0.0055	12.2	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	10/17/2021 23:35	AIL268	M	C179325	1.02	1.17	0.005	<0.0005	<0.0001	0.13	<0.0001	<0.001	<0.05	<0.00001	57.1	<0.001	<0.0002	<0.0005	0.01	<0.0002	0.0052	12.6	<0.001	<0.0000019	0.0012	<0.001	
EarthfillDam-W-Sump	10/19/2021 16:10	AIR753	M	C180384	1.32	1.37	0.0111	<0.0005	0.00011	0.146	<0.0001	<0.001	<0.05	0.000011	63.3	<0.001	<0.0002	<0.0005	0.044	<0.0002	0.0059	13.0	0.0012	<0.0000019	0.0017	0.0023	
EarthfillDam-W-Sump	10/20/2021 17:00	AIT536	M	C180689	1.49	1.41	0.0175	<0.0005	0.0001	0.143	<0.0001	<0.001	<0.05	0.000012	59.3	<0.001	<0.0002	<0.0005	0.045	<0.0002	0.0069	13.7	0.0011	<0.0000019	0.0029	<0.001	
EarthfillDam-W-Sump	10/21/2021 15:30	AIW014	M	C181069	1.17	1.24	0.0215	<0.0005	<0.0001	0.135	<0.0001	<0.001	<0.05	0.000017	58.7	<0.001	<0.0002	<0.0005	0.06	<0.0002	0.0058	12.8	0.0018	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	10/22/2021 12:00	AIW019	M	C181072	1.07	1.14	0.0153	<0.0005	<0.0001	0.125	<0.0001	<0.001	<0.05	0.000029	56.9	<0.001	<0.0002	<0.0005	0.023	<0.0002	0.0055	12.7	<0.001	<0.0000019	0.0014	<0.001	
EarthfillDam-W-Sump	10/23/2021 14:30	AIZ373	M	C181550	0.89	1.21	0.0157	<0.0005	<0.0001	0.125	<0.0001	<0.001	<0.05	0.000016	56.1	<0.001	<0.0002	<0.0005	0.054	<0.0002	0.0056	12.6	0.0013	<0.0000019	0.0014	0.0016	
EarthfillDam-W-Sump	10/24/2021 14:30	AIZ353	M	C181544	2.37	1.28	0.0099	<0.0005	<0.0001	0.127	<0.0001	<0.001	<0.05	0.000016	55.8	<0.001	<0.0002	<0.0005	0.018	<0.0002	0.0056	12.7	<0.001	<0.0000019	0.0015	<0.001	
EarthfillDam-W-Sump	10/25/2021 7:00	AIZ360	M	C181547	1.02	1.16	0.01	<0.0005	<0.0001	0.136	<0.0001	<0.001	<0.05	0.000018	58.4	<0.001	<0.0002	<0.0005	0.015	<0.0002	0.0058	12.5	0.0018	<0.0000019	0.0015	<0.001	
Farmers-Pond-EOP	5/18/2021 10:30	ZV2804	M	C133850																							
L3-DC-DS	3/19/2021 15:45	ZN1580	M	C118512																							
L3-DC-DS	3/28/2021 16:10	ZN9525	M	C120093																							
L3-DC-DS	3/31/2021 18:20	ZO4120	M	C121130																							
L3-DC-DS	4/1/2021 10:40	ZO4128	M	C121132																							
L3-DC-DS	4/3/2021 10:20	ZO6456	M	C121575																							
L3-DC-DS	4/5/2021 10:40	ZO7525	M	C121801																							
L3-DC-DS	4/9/2021 15:55	ZP3596	M	C123204																							
L3-DC-DS	4/14/2021 17:30	ZP9476	M	C124397																							
L3-DC-DS	5/5/2021 17:30	ZT3128	M	C130491																							
L3-DC-DS	5/6/2021 14:30	ZT3108	M	C130484																							
L3-DC-DS	5/25/2021 16:10	ZW1246	M	C135423																							
L3-DC-DS	5/27/2021 18:00	ZW4838	M	C136103																							
L3-DC-DS	6/17/2021 12:30	AAC471	M	C142866																							
L3-DC-DS	8/22/2021 17:40	AEI419	M	C161433																							
L3-DC-US	3/19/2021 15:40	ZN1579	M	C118512																							
L3-DC-US	3/28/2021 16:00	ZN9524	M	C120093																							
L3-DC-US	3/31/2021 18:15	ZO4119	M	C121130																							
L3-DC-US	4/1/2021 10:30	ZO4127	M	C121132																							
L3-DC-US	4/3/2021 10:10	ZO6455	M	C121575																							
L3-DC-US	4/5/2021 10:30	ZO7524	M	C121801																							
L3-DC-US	4/9/2021 15:45	ZP3595	M	C123204																							
L3-DC-US	4/14/2021 17:45	ZP9475	M	C124397																							
L3-DC-US	5/5/2021 17:40	ZT3127	M	C130491																							
L3-DC-US	5/6/2021 14:20	ZT3107	M	C130484																							

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
L3-DC-US	5/25/2021 16:00	ZW1245	M	C135423																							
L3-DC-US	5/27/2021 17:50	ZW4839	M	C136103																							
L3-DC-US	6/17/2021 13:00	AAC473	M	C142866																							
L3-DC-US	8/22/2021 18:00	AEI420	M	C161433																							
L3-E-DC-Sump	4/5/2021 10:20	ZO7523	M	C121801																							
L3-W-DC-EOP	3/31/2021 17:30	ZO4118	M	C121130																							
L3-W-DC-EOP	4/1/2021 10:20	ZO4126	M	C121132																							
L3-W-DC-EOP	4/5/2021 10:10	ZO7522	M	C121801																							
L3-W-DC-EOP	5/2/2021 16:55	ZS6052	M	C129102																							
L3-W-DC-EOP	5/4/2021 15:30	ZS9947	M	C129944																							
L3-W-DC-EOP	5/5/2021 17:20	ZT3126	M	C130491																							
L3-W-DC-EOP	5/6/2021 14:10	ZT3106	M	C130484																							
L3-W-DC-EOP	5/18/2021 10:05	ZV2803	M	C133850																							
L3-W-DC-EOP	5/21/2021 9:20	ZV5658	M	C134400																							
L3-W-DC-EOP	5/25/2021 15:50	ZW1244	M	C135423																							
L3-W-DC-EOP	5/27/2021 17:40	ZW4840	M	C136103																							
L3-W-DC-EOP	6/7/2021 16:20	ZY3091	M	C139476																							
L3-W-DC-EOP	6/17/2021 12:50	AAC472	M	C142866																							
L3-W-DC-EOP	7/21/2021 18:40	ACH935	M	C152481																							
L3-W-DC-EOP	7/22/2021 11:50	ACL557	M	C152988																							
L3-W-DC-EOP	8/6/2021 10:00	ADK127	M	C157131																							
L3-W-DC-EOP	8/7/2021 9:40	ADM464	M	C157545																							
L3-W-DC-EOP	11/6/2021 9:55	AKD996	M	C186250																							
L3-W-DC-Sump	3/19/2021 15:30	ZN1578	M	C118512																							
L3-W-DC-Sump	5/15/2021 10:45	ZU7898	M	C132915																							
L3-W-DC-Sump	7/20/2021 16:25	ACH820	M	C152456																							
L3-W-DC-Sump	8/22/2021 17:30	AEI421	M	C161433																							
LBCD-Sump-BT	3/30/2021 11:30	ZO2680	M	C120790	29.8	17.8	3.4	0.0038	0.00574	0.179	<0.0005	<0.005	0.575	0.000093	61.7	0.0085	0.0079	0.0079	4.62	0.0025	0.267	75.5	0.323	0.0000077	0.0429	0.0201	
LBCD-Sump-BT	6/9/2021 11:10	ZY6851	M	C140198	1.62	1.24	0.0713	<0.0005	0.00035	0.0588	<0.0001	<0.001	0.234	0.000016	120	<0.001	<0.0002	0.00072	0.397	<0.0002	0.0474	32.1	0.0263	0.0000027	0.0028	0.0023	
LBCD-Sump-BT	9/18/2021 16:00	AGJ638	M	C170329	<2.0	0.51	2.61	0.00052	0.00262	0.197	0.00015	<0.001	<0.05	0.000151	57.9	0.005	0.00231	0.00574	6.48	0.00249	0.007	15.1	0.15	0.0000044	0.0027	0.0071	
LBEX_B1	3/19/2021 11:00	ZM8863	M	C118061	10.1	8.46	2.76	<0.0005	0.00324	0.113	0.0003	<0.001	<0.05	0.000356	70.9	0.0061	0.00304	0.0131	6.27	0.00356	0.0106	30.7	0.125	0.0000185	0.005	0.0123	
LBEX_B1	4/6/2021 12:30	ZO9478	M	C122250	3.46	3.45	0.966	<0.0005	0.00091	0.0567	<0.0001	<0.001	<0.05	0.000074	85.1	0.0018	0.00083	0.00326	1.23	0.00069	0.012	40.4	0.0634	0.0000035	0.0058	0.0047	
LBEX_B1	5/2/2021 11:05	ZS6045	M	C129102	2.83	2.80	0.48	<0.0005	0.00053	0.0394	<0.0001	<0.001	0.076	0.000061	116	0.0067	0.00051	0.00245	0.803	0.00049	0.0157	58.0	0.0284	0.0000025	0.0129	0.0287	
LBEX_B1	5/13/2021 16:45	ZU4940	M	C132324	3.32	3.34	0.0314	<0.0005	0.00029	0.0267	<0.0001	<0.001	0.127	<0.00001	108	<0.001	<0.0002	0.0016	0.054	<0.0002	0.0265	70.1	0.0088	<0.0000019	0.0035	0.0031	
LBEX_B1	6/13/2021 9:50	ZZ1992	M	C141057	5.00	4.87	0.063	<0.0005	0.00048	0.0261	<0.0001	<0.001	0.225	<0.00001	98.6	<0.001	<0.0002	0.0018	0.088	<0.0002	0.0469	90.4	0.0105	<0.0000019	0.0028	0.0029	
LBEX_B1	7/19/2021 10:35	ACF038	M	C151946	4.72	5.18	0.0646	<0.0005	0.00056	0.0298	<0.0001	<0.001	0.133	0.000014	90.3	<0.001	<0.0002	0.0017	0.104	<0.0002	0.0352	74.5	0.0135	<0.0000019	0.0044	0.0028	
LBEX_B1	8/28/2021 15:35	AEV127	M	C163811	1.98	2.82	0.551	<0.0005	0.00067	0.0748	<0.0001	<0.001	0.128	0.000056	124	0.0012	0.00055	0.00253	1.18	0.00059	0.0229	56.1	0.0331	<0.0000019	0.0049	0.003	
LBEX_B1	9/20/2021 15:10	AGM226	M	C170680	3.95	3.87	0.043	<0.0005	0.00035	0.027	<0.0001	<0.001	0.241	<0.00001	118	<0.001	0.00022	0.00154	0.07	<0.0002	0.0526	109	0.0439	<0.0000019	0.0033	0.0033	
LBEX_B1	10/10/2021 15:55	AHX003	M	C176837	4.55		0.0287	<0.0005	0.00025	0.0222	<0.0001	<0.001	0.21	<0.00001	104	<0.001	<0.0002	0.00126	0.051	<0.0002	0.0453	89.7	0.0217	<0.0000019	0.0025	0.0026	
LBEX_B1	11/7/2021 16:10	AKE005	M	C186252	4.45	4.72	0.419	<0.0005	0.00065	0.0628	<0.0001	<0.001	0.084	0.000051	105	0.001	0.00096	0.006	0.754	0.00042	0.0246	49.1	0.0817	0.0000024	0.0052	0.0046	
LBEX_PAG_SUMP	8/7/2021 17:30	ADM463	M	C157545	3.39	3.03	27.1	<0.0005	0.00311	0.105	0.00508	<0.001	0.094	0.0216	312	0.0099	0.335	0.145	35.3	0.001	0.202	96.4	6.38	0.0000068	<0.001	1.01	
LBEX_PAG_SUMP	9/16/2021 16:05	AGG333	M	C169805	5.12	4.85	1.03	<0.0005	0.00097	0.042	<0.0001	<0.001	0.164	0.00404	300	0.0021	0.0839	0.00345	3.31	0.00067	0.089	155	2.73	<0.0000019	0.0101	0.254	
LBEX-B0	4/8/2021 16:05	ZP1744	M	C122796	1.98	1.65	0.143	<0.0005	0.00077	0.0209	<0.0001	<0.001	0.223	0.000838	304	<0.001	0.0227	0.00105	0.87	<0.0002	0.099	120	1.88	<0.0000019	0.0091	0.0916	
LBEX-B0	5/23/2021 10:05	ZV8623	M	C134923	2.34	1.04	0.0647	<0.001	0.00063	0.0207	<0.0002	<0.002	0.372	0.000149	247	<0.002	0.00288	<0.001	0.393	<0.0004	0.118	123	0.657	0.0000028	0.0098	0.0242	
LBEX-B0	7/19/2021 10:55	ACF039	M	C151946	2.02	1.70	0.589	<0.0005	0.00212	0.029	0.00011	<0.001	0.255	0.00131	246	0.0013	0.0151	0.00619	2.77	0.00035	0.102	113	0.909	<0.0000019	0.0093	0.0766	
LBEX-B0	9/16/2021 16:25	AGG334	M	C169805	1.23	1.59	0.329	<0.0005	0.00065	0.0171	<0.0001	<0.001	0.294	0.00108	281	<0.001	0.0123	0.00448	1.14	<0.0002	0.134	144	0.806	<0.0000019	0.0069	0.0561	
LBEX-B0	10/17/2021 10:20	AIL269	M	C179325	2.33	1.38	0.393	<0.0005	0.00146	0.0238	<0.0001	<0.001	0.24	0.000683	259	<0.001	0.00662	0.00344	2.19	0.00041	0.0978	162	0.562	<0.0000019	0.0046	0.0338	
LBEX-B0	11/7/2021 16:30	AKE006	M	C186252	0.93	1.11	0.792	<0.0005	0.00231	0.0263	0.00017	<0.001	0.33	0.00128	281	0.0012	0.015	0.00716	2.85	0.00042	0.148	135	0.809	<0.0000019	0.0054	0.0706	
LBGC-Debris-US	3/19/2021 11:45	ZM8868	M	C118061																							
LBGC-Debris-US	3/28/2021 14:00	ZN9520	M	C120093																							
LBGC-Debris-US	4/1/2021 12:05	ZO4129	M	C121132																							
LBGC-Debris-US	4/6/2021 13:15	ZO9476	M	C122250																							
LBGC-Debris-US	4/29/2021 14:00	ZS2294	M	C128584																							
LBGC-Debris-US	5/8/2021 11:40	ZT6591	M	C130995																							
LBGC-Debris-US	5/12/2021 14:40	ZU2128	M	C131927																							
LBGC-Debris-US	5/18/2021 11:20	ZV2805	M	C133850																							
LBGC-Debris-US	5/27/2021 14:00	ZW4836	M	C136103																							
LBGC-Debris-US	6/3/2021 14:15	ZX7155	M	C138404																							
LBGC-Debris-US	6/12/2021 15:40	ZZ1990	M	C141056																							
LBGC-Debris-US	6/18/2021 13:00	AAC478	M	C142867																							
LBGC-Debris-US	6/24/2021 10:25	AAQ178	M	C144970																							
LBGC-Debris-US	7/3/2021 14:45	ABE029	M	C147272																							
LBGC-Debris-US	7/10/2021 14:50	ABP531	M	C149429																							
LBGC-Debris-US	7/17/2021 11:35	ACC248	M	C151542																							
LBGC-Debris-US	7/22/2021 10:25	ACL555	M	C152988																							
LBGC-Debris-US	8/7/2021 17:15	ADM466	M	C157545																							
LBGC-Debris-US	8/22/2021 17:00	AEI417	M	C161433																							
LBGC-Debris-US	8/26/2021 16:15	AER562	M	C163145																							

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC mg/L	DOC mg/L	T-Al mg/L	T-Sb mg/L	T-As mg/L	T-Ba mg/L	T-Be mg/L	T-Bi mg/L	T-B mg/L	T-Cd mg/L	T-Ca mg/L	T-Cr mg/L	T-Co mg/L	T-Cu mg/L	T-Fe mg/L	T-Pb mg/L	T-Li mg/L	T-Mg mg/L	T-Mn mg/L	T-Hg mg/L	T-Mo mg/L	T-Ni mg/L	T-P mg/L	
LBGC-Debris-US	9/12/2021 15:20	AFV420	M	C168037																								
LBGC-Debris-US	9/17/2021 13:15	AGG312	M	C169799																								
LBGC-Debris-US	10/24/2021 15:00	AIZ354	M	C181544																								
LBGC-Debris-US	10/28/2021 10:20	AJL911	M	C183658																								
LBGC-OUT	3/19/2021 12:20	ZM8869	M	C118061																								
LBGC-OUT	3/28/2021 14:20	ZN9523	M	C120093																								
LBGC-OUT	4/1/2021 12:15	ZO4130	M	C121132																								
LBGC-OUT	4/6/2021 13:25	ZO9477	M	C122250																								
LBGC-OUT	4/29/2021 14:10	ZS2295	M	C128584																								
LBGC-OUT	5/8/2021 11:10	ZT6590	M	C130995																								
LBGC-OUT	5/12/2021 14:00	ZU2127	M	C131927																								
LBGC-OUT	5/18/2021 12:05	ZV2806	M	C133850																								
LBGC-OUT	5/27/2021 14:20	ZW4837	M	C136103																								
LBGC-OUT	6/3/2021 13:20	ZX7154	M	C138404																								
LBGC-OUT	6/12/2021 15:50	ZZ1991	M	C141056																								
LBGC-OUT	6/18/2021 12:40	AAC477	M	C142867																								
LBGC-OUT	6/24/2021 11:30	AAQ179	M	C144970																								
LBGC-OUT	7/3/2021 13:25	ABE028	M	C147272																								
LBGC-OUT	7/10/2021 15:00	ABP532	M	C149429																								
LBGC-OUT	7/17/2021 12:50	ACC249	M	C151542																								
LBGC-OUT	7/22/2021 10:40	ACL556	M	C152988																								
LBGC-OUT	8/7/2021 16:05	ADM465	M	C157545																								
LBGC-OUT	8/22/2021 16:50	AEI418	M	C161433																								
LBGC-OUT	8/26/2021 14:55	AER561	M	C163145																								
LBGC-OUT	9/12/2021 15:30	AFV421	M	C168037																								
LBGC-OUT	9/17/2021 12:05	AGG311	M	C169799																								
LBGC-OUT	10/24/2021 15:20	AIZ355	M	C181544																								
LBGC-OUT	10/28/2021 10:55	AJL912	M	C183658																								
MWTF-PAG-POND	1/6/2021 7:00	ZD0207	M	C100919																								
MWTF-PAG-POND	1/13/2021 9:05	ZD7921	M	C102466																								
MWTF-PAG-POND	1/16/2021 9:10	ZE4103	M	C103710																								
MWTF-PAG-POND	2/10/2021 7:30	ZH5701	M	C108783																								
MWTF-PAG-POND	2/17/2021 8:30	ZI2103	M	C110147																								
MWTF-PAG-POND	2/25/2021 9:00	ZJ5659	M	C112156																								
MWTF-PAG-POND	3/3/2021 9:00	ZK6879	M	C114008																								
MWTF-PAG-POND	3/10/2021 9:05	ZL6784	M	C115704			1.68	0.00298	0.00197	0.158	<0.00010	<0.0010	0.101	0.000078	64.1	0.0088	0.00453	0.00497	1.16	0.00072	0.0587	23.4	0.0868	<0.000050	0.0136	0.0267		
MWTF-PAG-POND	3/17/2021 9:05	ZM5401	M	C117370			2.24	0.00213	0.00242	0.175	<0.00010	<0.0010	0.120	0.000081	68.2	0.0064	0.00310	0.00648	2.26	0.00137	0.0482	21.5	0.0950	<0.000050	0.0139	0.0128		
MWTF-PAG-POND	3/24/2021 9:00	ZN4130	M	C119033			0.707	0.00327	0.00275	0.211	<0.00010	<0.0010	0.147	0.000033	57.9	0.0064	0.00124	0.00426	1.05	0.00078	0.0563	18.2	0.0289	<0.000050	0.0181	0.0081		
MWTF-PAG-POND	3/31/2021 7:00	ZO2644	M	C120786			2.52	0.00405	0.00408	0.217	<0.00010	<0.0010	0.139	0.000077	48.7	0.0114	0.00307	0.00649	2.23	0.00153	0.0624	18.4	0.0657	<0.000050	0.0207	0.0147		
MWTF-PAG-POND	4/7/2021 9:05	ZO9398	M	C122214			1.34	0.00293	0.00246	0.144	<0.00010	<0.0010	0.118	0.000191	63.7	0.0084	0.00883	0.00630	1.02	0.00061	0.0784	22.9	0.162	<0.000050	0.0172	0.0370		
MWTF-PAG-POND	4/14/2021 9:05	ZP7263	M	C123955			1.68	0.00309	0.00410	0.322	0.00012	<0.0010	0.159	0.000180	71.8	0.0082	0.00741	0.00967	2.47	0.00194	0.0906	25.2	0.155	<0.000050	0.0158	0.0266		
MWTF-PAG-POND	4/21/2021 7:00	ZQ7688	M	C125899			2.76	0.00367	0.00545	0.483	0.00020	<0.0010	0.185	0.000036	40.7	0.0078	0.00292	0.00999	3.31	0.00303	0.0940	19.0	0.0419	<0.000050	0.0166	0.0113		
MWTF-PAG-POND	4/28/2021 9:15	ZR8166	M	C127754			2.22	0.00327	0.00343	0.214	<0.00010	<0.0010	0.150	0.000019	39.4	0.0135	0.00106	0.00388	1.03	0.00080	0.0743	16.2	0.0224	<0.000050	0.0206	0.0311		
MWTF-PAG-POND	5/5/2021 9:05	ZS8920	M	C129714			2.83	0.00307	0.00340	0.196	<0.00010	<0.0010	0.171	0.000049	48.8	0.0144	0.00169	0.00504	1.60	0.00096	0.0904	18.3	0.0474	<0.000050	0.0256	0.0333		
MWTF-PAG-POND	5/12/2021 9:05	ZU0684	M	C131710			3.06	0.00247	0.00276	0.145	<0.00010	<0.0010	0.151	0.000028	56.0	0.0073	0.00105	0.00471	1.30	0.00094	0.0573	17.8	0.0173	<0.000050	0.0202	0.0050		
MWTF-PAG-POND	5/19/2021 8:45	ZV2958	M	C133889			1.93	0.00220	0.00286	0.153	<0.00010	<0.0010	0.160	0.000070	59.2	0.0166	0.00209	0.00539	2.22	0.00167	0.0678	17.3	0.0545	<0.000050	0.0253	0.0088		
MWTF-PAG-POND	5/26/2021 8:45	ZW0042	M	C135196			3.08	0.00264	0.00479	0.391	0.00016	<0.0010	0.203	0.000131	68.7	0.0098	0.00551	0.00745	3.26	0.00225	0.0782	23.9	0.138	<0.000050	0.0218	0.0234		
MWTF-PAG-POND	6/1/2021 8:05	ZX2962	M	C137634			1.81	0.00373	0.00304	0.148	<0.00010	<0.0010	0.248	0.000084	30.9	0.0136	0.00155	0.00875	1.37	0.00204	0.101	12.9	0.0296	<0.000050	0.0234	0.0105		
MWTF-PAG-POND	6/9/2021 9:15	ZY5024	M	C139832			0.726	0.00479	0.00313	0.162	<0.00010	<0.0010	0.282	0.000017	35.8	0.0103	0.00125	0.00439	0.674	0.00071	0.118	21.7	0.0201	<0.000050	0.0203	0.0090		
MWTF-PAG-POND	6/16/2021 9:10	ZZ8821	M	C142309			2.80	0.00500	0.00316	0.143	<0.00010	<0.0010	0.203	0.000051	18.5	0.0207	0.00223	0.00525	1.16	0.00096	0.105	9.91	0.0297	<0.000050	0.0170	0.0084		
MWTF-PAG-POND	6/23/2021 9:00	AAK290	M	C144096			86.1	0.00243	0.0656	4.94	0.00453	0.0014	0.592	0.00296	107	0.118	0.0549	0.175	105	0.0908	0.183	37.1	2.28	0.000398	0.0418	0.143		
MWTF-PAG-POND	6/30/2021 9:10	AAY996	M	C146526			4.03	0.00572	0.00640	0.356	0.00020	<0.0010	0.365	0.000052	32.7	0.0119	0.00248	0.0116	2.97	0.00297	0.164	13.1	0.0388	<0.000050	0.0209	0.0065		
MWTF-PAG-POND	7/7/2021 9:10	ABJ035	M	C148208			3.13	0.00636	0.00552	0.220	0.00025	<0.0010	0.435	0.000123	38.7	0.0123	0.00335	0.0145	4.03	0.00280	0.115	18.6	0.0759	<0.000050	0.0309	0.0128		
MWTF-PAG-POND	7/14/2021 9:00	ABT742	M	C150153			16.6	0.00595	0.0149	1.30	0.00093	<0.0010	0.480	0.000237	63.9	0.0340	0.0154	0.0620	17.8	0.0158	0.130	15.7	0.165	<0.000050	0.0221	0.0365		
MWTF-PAG-POND	7/14/2021 9:25	ACG114	M	C152141			1.37	0.00363	0.00283	0.319	0.00016	<0.0010	0.260	0.000123	83.6	0.0051	0.00441	0.00643	2.69	0.00147	0.0918	25.7	0.241	<0.000050	0.0205	0.0219		
MWTF-PAG-POND	7/28/2021 9:10	ACU801	M	C154587			2.39	0.00237	0.00395	0.274	0.00017	<0.0010	0.279	0.000082	43.5	0.0100	0.00279	0.0111	4.99	0.00315	0.0968	14.0	0.0740	<0.000050	0.0159	0.0097		
MWTF-PAG-POND	8/4/2021 9:10	ADE503	M	C156226			1.08	0.00502	0.00391	0.158	<0.00010	<0.0010	0.220	0.000016	16.0	0.0133	0.00087	0.00525	1.07	0.00089	0.0648	7.96	0.0146	<0.000050	0.0168	0.0026		
MWTF-PAG-POND	8/11/2021 9:15	ADP908	M	C158213			1.30	0.00415	0.00260	0.118	<0.00010	<0.0010	0.209	0.000016	37.9	0.0089	0.00107	0.00632	1.19	0.00086	0.0738	16.5	0.0232	<0.000050	0.0146	0.0041		
MWTF-PAG-POND	8/18/2021 9:00	ADZ879	M	C160258			1.22	0.00425	0.00217	0.161	<0.00010	<0.0010	0.224	0.000048	44.9	0.0067	0.00240	0.00517	0.865	0.00062	0.0829	16.9	0.0446	<0.000050	0.0101	0.0108		
MWTF-PAG-POND	8/25/2021 9:10	AEN303	M	C162336			1.14	0.00260	0.00130	0.150	<0.00010	<0.0010	0.236	0.00116	150	0.0032	0.0696	0.00674	1.24	0.00084	0.189	49.0	1.25	<0.000050	0.0083	0.229		
MWTF-PAG-POND	9/1/2021 9:10	AFA893	M	C164810			0.653	0.00232	0.00144	0.157	<0.00010	<0.0010	0.318	0.000104	74.9	0.0029	0.00489	0.00338	1.07	0.00049	0.131	27.6	0.130	<0.000050	0.0082	0.0189		
MWTF-PAG-POND	9/8/2021 9:10	AFL367	M	C166567			0.499	0.00316	0.00139	0.112	<0.00010	<0.0010	0.228	0.000039	53.8	0.0023	0.00138	0.00266	0.440	0.00030	0.0923	23.3	0.0726	<0.000050	0.0102	0.0064		
MWTF-PAG-POND	9/15/2021 9:10	AGA403	M	C168915			1.25	0.00103	0.00148	0.290	0.00011	<0.0010	0.136	0.000955	76.0	0.0026	0.0215	0.00613	2.73	0.00102	0.0717	25.2	0.513	<0.000050	0.0053	0.0711		
MWTF-PAG-POND	9/22/2021 9:10	AGO150	M	C171030			1.40	0.00081	0.00137	0.144	<0.00010	<0.0010	0.130	0.000071	52.2	0.0033	0.00168	0.00479	1.57	0.00092	0.0644	16.2	0.0777	<0.000050	0.0042	0.0072		
MWTF-PAG-POND	9/29/2021 9:05	AHB517	M	C173306			0.701	<0.00050	0.00092	0.0841	<0.00010	<0.0010	0.114	0.000382	53.9	0.0015	0.00919	0.00377	1.17	0.00052	0.0679	16.8	0.219	<0.000050	0.0030	0.0323		
MWTF-PAG-POND	10/13/2021 9:10	AIB250	M	C177602			0.920	<0.0025	0.00180	0.122	<0.00050	<0.0050	<0.25	<0.000050	30.3	0.0065	0.0012	0.0050	0.970	<0.0010	0.059	11.6	0.0266	<0.00025	0.0065	0.0055		
MWTF-PAG-POND	10/20/2021 9:05	AIR351	M	C180292			2.98	0.00243	0.00240	0.191	<0.00010	<0.0010	0.107	0.000039	42.8	0.0087	0.00160	0.00725	1.56	0.00134	0.0526	12.2	0.0283	<0.000050	0.0063	0.0059		
MWTF-PAG-POND	10/27/2021 9:05	AJF092	M	C182468			1.02	0.00120	0.00128	0.126	<0.00010	<0.0010	0.118	0.000037	53.6	0.0034	0.00095	0.00290	0.928	0.00060	0.0796	20.3	0.0421	<0.000050	0.0049	0.0050		
MWTF-PAG-POND	11/3/2021 8:50	AJU897	M	C184917			1.13	0.00241	0.00248	0.152	<0.00010	<0.0010	0.132	0.000055	46.7	0.0050	0.00158	0.00779	2.43	0.00144	0.0683	18.2	0.0507	<0.000050	0.0055	0.0061		

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWTF-PAG-POND	11/10/2021 9:00	AKL845	M	C187287			1.41	0.00328	0.00242	0.221	<0.00010	<0.0010	0.125	0.000049	53.2	0.0065	0.00215	0.00829	1.88	0.00158	0.0667	12.3	0.0469	<0.000050	0.0086	0.0077	
MWTF-PAG-POND	11/17/2021 8:50	AKV482	M	C188716			3.3	0.0033	0.0029	0.18	<0.0010		0.11	0.000090	48	0.0081	0.0029	0.013	2.3	0.0023	0.057	12	0.053		0.0090	0.0082	<0.10
MWTF-PAG-POND	11/24/2021 8:50	ALZ944	M	C194563			0.371	0.00129	0.00126	0.0995	<0.00010	<0.0010	0.172	0.000032	42.0	0.0020	0.00081	0.00423	0.828	0.00056	0.0924	11.7	0.0251	<0.000050	0.0067	0.0039	
MWTF-PAG-POND	12/1/2021 9:00	ALV046	M	C193508			0.389	0.00108	0.00083	0.123	<0.00010	<0.0010	0.189	0.000107	62.3	0.0027	0.00344	0.00349	0.407	0.00038	0.0876	13.2	0.109	<0.000050	0.0076	0.0131	
MWTF-PAG-POND	12/8/2021 9:15	ALF842	M	C190633			0.802	0.00141	0.00118	0.106	<0.00010	<0.0010	0.132	0.000038	65.2	0.0034	0.00092	0.00383	1.09	0.00064	0.0778	19.4	0.0339	<0.000050	0.0076	0.0049	
MWTF-PAG-POND	12/15/2021 9:00	ALX789	M	C194026			0.333	0.00161	0.00120	0.107	<0.00010	<0.0010	0.120	0.000027	69.8	0.0091	0.00095	0.00667	0.281	0.00047	0.0651	22.4	0.0240	<0.000050	0.0080	0.0048	
MWTF-PAG-POND	12/22/2021 8:50	AMM562	M	C196867			10.7	0.00116	0.0129	1.48	0.00084	<0.0010	0.143	0.000897	139	0.0173	0.0152	0.0627	32.5	0.0148	0.122	41.3	0.568	<0.000050	0.0049	0.0470	
MWTF-CELL-3	1/6/2021 7:10	ZD0208	M	C100919			0.0687	0.00110	0.00080	0.0133	<0.00010	<0.0010	0.112	<0.000010	21.8	<0.0010	<0.00020	0.00086	0.058	<0.00020	0.0558	25.4	0.0032	<0.000050	0.0078	0.0030	
MWTF-CELL-3	1/13/2021 9:15	ZD7922	M	C102466			0.0802	0.00211	0.00117	0.0175	<0.00010	<0.0010	0.124	<0.000010	22.0	0.0021	<0.00020	0.00081	0.049	<0.00020	0.0473	26.1	0.0020	<0.000050	0.0089	0.0023	
MWTF-CELL-3	1/16/2021 9:15	ZE4104	M	C103710			0.0967	0.00143	0.00089	0.0184	<0.00010	<0.0010	0.119	<0.000010	30.0	0.0023	0.00058	0.00086	0.090	<0.00020	0.0566	30.6	0.0121	<0.000050	0.0091	0.0065	
MWTF-CELL-3	2/10/2021 7:20	ZH5702	M	C108783			0.0958	0.00133	0.00113	0.0191	<0.00010	<0.0010	0.105	<0.000010	24.5	0.0041	<0.00020	0.00179	0.084	<0.00020	0.0503	25.7	0.0038	<0.000050	0.0068	0.0023	
MWTF-CELL-3	2/17/2021 8:20	ZI2104	M	C110147			0.168	0.00273	0.00160	0.0236	<0.00010	<0.0010	0.110	<0.000010	20.3	0.0046	<0.00020	0.00215	0.121	<0.00020	0.0496	23.3	0.0025	<0.000050	0.0070	0.0017	
MWTF-CELL-3	2/25/2021 9:10	ZJ5660	M	C112156			0.190	0.00253	0.00166	0.0261	<0.00010	<0.0010	0.128	0.000023	24.0	0.0061	0.00049	0.00177	0.103	<0.00020	0.0594	23.5	0.0127	<0.000050	0.0106	0.0068	
MWTF-CELL-3	3/3/2021 9:10	ZK6880	M	C114008			0.112	0.00181	0.00141	0.0218	<0.00010	<0.0010	0.101	0.000024	21.0	0.0063	0.00035	0.00150	0.105	<0.00020	0.0530	19.7	0.0040	<0.000050	0.0112	0.0063	
MWTF-CELL-3	3/10/2021 9:15	ZL6785	M	C115704			0.150	0.00278	0.00155	0.0315	<0.00010	<0.0010	0.107	0.000030	23.5	0.0064	0.00060	0.00173	0.172	<0.00020	0.0546	23.2	0.0112	<0.000050	0.0116	0.0064	
MWTF-CELL-3	3/17/2021 9:15	ZM5402	M	C117370			0.125	0.00253	0.00166	0.0258	<0.00010	<0.0010	0.116	0.000012	21.8	0.0056	0.00028	0.00129	0.134	<0.00020	0.0478	21.2	0.0056	<0.000050	0.0132	0.0031	
MWTF-CELL-3	3/24/2021 9:10	ZN4131	M	C119033			0.124	0.00234	0.00157	0.0367	<0.00010	<0.0010	0.120	0.000017	26.3	0.0051	0.00040	0.00158	0.048	<0.00020	0.0489	17.1	0.0044	<0.000050	0.0161	0.0079	
MWTF-CELL-3	3/31/2021 7:10	ZO2645	M	C120786			0.113	0.00392	0.00258	0.0346	<0.00010	<0.0010	0.136	<0.000010	20.2	0.0071	0.00031	0.00171	0.086	<0.00020	0.0539	17.0	0.0035	<0.000050	0.0200	0.0042	
MWTF-CELL-3	4/7/2021 9:15	ZO9399	M	C122214			0.145	0.00336	0.00222	0.0550	<0.00010	<0.0010	0.113	0.000033	36.6	0.0089	0.00062	0.00233	0.107	<0.00020	0.0606	18.5	0.0085	<0.000050	0.0200	0.0087	
MWTF-CELL-3	4/14/2021 9:15	ZP7264	M	C123955			0.108	0.00270	0.00238	0.0911	<0.00010	<0.0010	0.130	0.000037	56.3	0.0061	0.00133	0.00180	0.090	<0.00020	0.0829	22.7	0.0305	<0.000050	0.0162	0.0104	
MWTF-CELL-3	4/21/2021 7:10	ZQ7689	M	C125899			0.119	0.00356	0.00227	0.0541	<0.00010	<0.0010	0.156	<0.000010	36.2	0.0042	0.00049	0.00144	0.091	<0.00020	0.0777	23.9	0.0089	<0.000050	0.0153	0.0055	
MWTF-CELL-3	4/28/2021 9:30	ZR8167	M	C127754			0.133	0.00416	0.00337	0.0714	<0.00010	<0.0010	0.195	<0.000010	22.8	0.0119	0.00023	0.00118	0.037	<0.00020	0.0839	18.1	0.0018	<0.000050	0.0267	0.0365	
MWTF-CELL-3	5/5/2021 9:15	ZS8921	M	C129714			0.143	0.00399	0.00357	0.0559	<0.00010	<0.0010	0.166	<0.000010	18.3	0.0167	0.00027	0.00129	0.134	<0.00020	0.0856	16.2	0.0044	<0.000050	0.0273	0.0471	
MWTF-CELL-3	5/12/2021 9:15	ZU0685	M	C131710			0.235	0.00318	0.00298	0.0489	<0.00010	<0.0010	0.157	<0.000010	20.9	0.0063	0.00022	0.00194	0.160	<0.00020	0.0627	17.8	0.0035	<0.000050	0.0180	0.0019	
MWTF-CELL-3	5/19/2021 8:55	ZV2959	M	C133889			0.177	0.00378	0.00304	0.0538	<0.00010	<0.0010	0.152	<0.000010	17.9	0.0073	<0.00020	0.00150	0.094	<0.00020	0.0569	12.2	0.0045	<0.000050	0.0176	0.0013	
MWTF-CELL-3	5/26/2021 8:50	ZW0043	M	C135196			0.154	0.00252	0.00280	0.0620	<0.00010	<0.0010	0.187	0.000019	31.2	0.0081	0.00029	0.00151	0.169	<0.00020	0.0685	17.7	0.0111	<0.000050	0.0223	0.0030	
MWTF-CELL-3	6/1/2021 8:10	ZX2963	M	C137634			0.147	0.00378	0.00310	0.0777	<0.00010	<0.0010	0.213	<0.000010	27.9	0.0093	<0.00020	0.00133	0.073	<0.00020	0.0821	18.3	0.0028	<0.000050	0.0242	0.0029	
MWTF-CELL-3	6/9/2021 9:05	ZY5025	M	C139832			0.113	0.00461	0.00297	0.0678	<0.00010	<0.0010	0.216	<0.000010	23.2	0.0120	<0.00020	0.00130	0.038	<0.00020	0.0797	14.2	0.0022	<0.000050	0.0257	0.0016	
MWTF-CELL-3	6/16/2021 9:15	ZZ8822	M	C142309			0.0664	0.00545	0.00251	0.0593	<0.00010	<0.0010	0.252	<0.000010	21.3	0.0121	<0.00020	0.00152	0.026	<0.00020	0.0987	13.3	0.0021	<0.000050	0.0253	0.0012	
MWTF-CELL-3	6/23/2021 9:10	AAK291	M	C144096			0.0874	0.00478	0.00196	0.0590	<0.00010	<0.0010	0.324	<0.000010	23.9	0.0095	<0.00020	0.00144	0.059	<0.00020	0.126	16.0	0.0055	<0.000050	0.0213	0.0023	
MWTF-CELL-3	6/30/2021 9:15	AAY997	M	C146526			0.0722	0.00568	0.00271	0.0563	<0.00010	<0.0010	0.271	<0.000010	21.6	0.0123	<0.00020	0.00128	0.052	<0.00020	0.146	14.1	0.0033	<0.000050	0.0244	0.0022	
MWTF-CELL-3	7/7/2021 9:15	ABJ036	M	C148208			0.0595	0.00651	0.00367	0.0497	<0.00010	<0.0010	0.355	0.000019	12.8	0.0122	0.00026	0.00159	0.047	<0.00020	0.123	11.8	0.0049	<0.000050	0.0259	0.0032	
MWTF-CELL-3	7/14/2021 9:00	ACG115	M	C152141			0.158	0.00888	0.00365	0.0512	<0.00010	<0.0010	0.326	0.000029	12.7	0.0081	0.00040	0.00172	0.166	<0.00020	0.103	11.1	0.0069	<0.000050	0.0280	0.0048	
MWTF-CELL-3	7/14/2021 9:30	ABT743	M	C150153			0.0965	0.00766	0.00413	0.0492	<0.00010	<0.0010	0.384	<0.000010	11.7	0.0112	<0.00020	0.00217	0.082	<0.00020	0.116	11.1	0.0055	<0.000050	0.0282	0.0024	
MWTF-CELL-3	7/28/2021 9:15	ACU802	M	C154587			0.0544	0.00248	0.00124	0.0541	<0.00010	<0.0010	0.296	<0.000010	73.2	0.0025	0.00090	0.00113	0.055	<0.00020	0.116	25.5	0.0182	<0.000050	0.0159	0.0119	
MWTF-CELL-3	8/4/2021 9:15	ADE504	M	C156226			0.0607	0.00232	0.00169	0.0458	<0.00010	<0.0010	0.244	<0.000010	32.3	0.0032	0.00023	0.00110	0.062	<0.00020	0.0889	18.8	0.0069	<0.000050	0.0139	0.0037	
MWTF-CELL-3	8/11/2021 9:20	ADP909	M	C158213			0.0618	0.00235	0.00118	0.0441	<0.00010	<0.0010	0.225	<0.000010	43.3	0.0032	0.00030	0.00126	0.026	<0.00020	0.0929	22.7	0.0100	<0.000050	0.0144	0.0053	
MWTF-CELL-3	8/18/2021 9:10	ADZ880	M	C160258			0.254	0.00440	0.00161	0.0414	<0.00010	<0.0010	0.210	<0.000010	21.3	0.0066	<0.00020	0.00150	0.051	<0.00020	0.0850	17.3	0.0145	<0.000050	0.0158	0.0023	
MWTF-CELL-3	8/25/2021 9:15	AEN304	M	C162336			0.116	0.00279	0.00077	0.0431	<0.00010	<0.0010	0.177	0.000025	96.8	0.0035	0.00060	0.00097	0.049	<0.00020	0.147	30.0	0.0238	<0.000050	0.0083	0.0044	
MWTF-CELL-3	9/1/2021 9:15	AFA894	M	C164810			0.0377	0.00262	0.00040	0.0449	<0.00010	<0.0010	0.219	0.000013	97.9	0.0021	0.00048	0.00071	0.027	<0.00020	0.143	28.0	0.0159	<0.000050	0.0082	0.0049	
MWTF-CELL-3	9/8/2021 9:10	AFL368	M	C166567			0.0656	0.00314	0.00087	0.0346	<0.00010	<0.0010	0.212	<0.000010	39.4	0.0028	0.00020	0.00102	0.026	<0.00020	0.136	25.9	0.0151	<0.000050	0.0099	0.0027	
MWTF-CELL-3	9/15/2021 9:00	AGA404	M	C168915			0.102	0.00238	0.00103	0.0295	<0.00010	<0.0010	0.183	<0.000010	19.7	0.0024	0.00022	0.00100	0.075	<0.00020	0.0969	22.2	0.0076	<0.000050	0.0078	0.0028	
MWTF-CELL-3	9/22/2021 9:15	AGO151	M	C171030			0.145	0.00074	0.00090	0.0443	<0.00010	<0.0010	0.104	0.000012	24.6	0.0012	0.00042	0.00121	0.135	<0.00020	0.0550	16.1	0.0145	<0.000050	0.0037	0.0054	
MWTF-CELL-3	9/29/2021 9:15	AHB518	M	C173306			0.233	0.00063	0.00100	0.0359	<0.00010	<0.0010	0.128	0.000019	17.2	0.0012	0.00056	0.00162	0.249	<0.00020	0.0688	13.8	0.0191	<0.000050	0.0037	0.0051	
MWTF-CELL-3	10/6/2021 8:25	AHO703	M	C175648			0.241	0.00196	0.00127	0.0345	<0.00010	<0.0010	0.134	0.000015	14.8	0.0031	0.00037	0.00156	0.192	0.00020	0.0537	12.6	0.0095	0.000073	0.0079	0.0023	
MWTF-CELL-3	10/13/2021 9:00	AIB251	M	C177602			0.082	<0.0025	0.00103	0.0240	<0.00050	<0.0050	<0.25	<0.000050	13.9	<0.0050	<0.0010	<0.0025	0.099	<0.0010	0.062	10.8	<0.0050	<0.00025	0.0071	<0.0050	
MWTF-CELL-3	10/20/2021 9:15	AIR352	M	C180292			0.0910	0.00178	0.00084	0.0237	<0.00010	<0.0010	0.091	<0.000010	12.0	0.0041	<0.00020	0.00110	0.065	<0.00020	0.0506	8.07	0.0020	<0.000050	0.0060	0.0012	
MWTF-CELL-3	10/27/2021 9:15	AJF093	M	C182468			0.130	0.00217	0.00162	0.0329	<0.00010	<0.0010	0.120	<0.000010	13.9	0.0047	<0.00020	0.00114	0.105	<0.00020	0.0692	13.1	0.0021	<0.000050	0.0062	0.0017	
MWTF-CELL-3	11/3/2021 8:55	AJU898	M	C184917			0.264	0.00206	0.00115	0.0293	<0.00010	<0.0010	0.137	<0.000010	19.2	0.0040	<0.00020	0.00132	0.081	<0.00020	0.0818	15.8	0.0032	<0.000050	0.0075	0.0022	
MWTF-CELL-3	11/10/2021 9:00	AKL846	M	C187287			0.132	0.00276	0.00136	0.0301	<0.00010	<0.0010	0.113	<0.000010	15.0	0.0036	0.00029	0.00198	0.139	<0.00020	0.0639	11.8	0.0067	<0.000050	0.0073	0.0038	
MWTF-CELL-3	11/17/2021 8:55	AKV483	M	C188716			0.22	0.0040	0.0020	0.037	<0.0010		0.11	<0.000020	16	0.0044	0.00047	0.0026	0.15	0.00028	0.059	12	0.0069		0.0099	0.0039	<0.10
MWTF-CELL-3	11/24/2021 8:55	ALZ945	M	C194563			0.141	0.00216	0.00141	0.0349	<0.00010	<0.0010	0.157	0.000010	17.3	0.0028	0.00034	0.00202	0.192	0.00024	0.0720	11.1	0.0068	<0.000050	0.0070	0.0026	
MWTF-CELL-3	12/1/2021 9:20	ALV047	M	C193508			0.123	0.00160	0.00126	0.0318	<0.00010	<0.0010	0.217	<0.000010	18.8	0.0019	0.00048	0.00166	0.184	<0.00020	0.0829	9.97	0.0094	<0.000050	0.0067	0.0052	
MWTF-CELL-3	12/8/2021 9:10	ALF841	M	C190633			0.133	0.00177	0.00106	0.0290	<0.00010	<0.0010	0.165	<0.000010	24.6	0.0019	0.00055	0.00160	0.138	<0.00020	0.0931	16.8	0.0250	<0.000050	0.0074	0.0076	
MWTF-CELL-3	12/15/2021 9:10	ALX791	M	C194026			0.127	0.00174	0.00112	0.0308	<0.00010	<0.0010	0.164	0.000012	25.6	0.0032	0.00041	0.00153	0.103	<0.00020	0.0918	16.8	0.0221	<0.000050	0.0087	0.0066	
MWTF-CELL-3	12/22/2021 8:55	AMM563	M	C196867			0.0651	0.00170	0.00112	0.0124	<0.00010	<0.0010	0.115	<0.000010	18.8	0.0059	<0.00020	0.00119	0.048	<0.00020	0.0625	24.6	0.0018	<0.000050	0.0071	0.0014	
MWTF-CELL-3	12/29/2021 8:30	AMO192	M	C197186			0.0834	0.00096	0.00082	0.0142	<0.00010	<0.0010	0.089	<0.000010	18.4	0.0032	<0.00020	0.00154	0.065	<0.00020	0.0554	22.3	0.0025	<0.000050	0.0052	0.0015	
MWTF-CELL-1-PIPE	1/6/2021 7:05	ZD0209	M	C100919																							
MWTF-CELL-1-PIPE	1/13/2021 9:10	ZD7923	M	C102466																							
MWTF-CELL-1-PIPE	1/16/2021 9:05	ZE4105	M	C103710																							
MWTF-CELL-1-PIPE	2/10/2021 7:35	ZH5703	M	C108783																							
MWTF-CELL-1-PIPE	2/17/2021 8:40	ZI2105	M	C110147																							
MWTF-CELL-1-PIPE	2/25/2021 9:05	ZJ5661	M	C112156																							
MWTF-CELL-1-PIPE	3/3/2021 9:05	ZK6881	M	C114008																							
MWTF-CELL-1-PIPE	3/10/2021 9:10	ZL6786	M	C115704																							
MWTF-CELL-1-PIPE	3/17/2021 9:10	ZM5403	M	C117370																							
MWTF-CELL-1-PIPE	3/24/2021 9:05	ZN4132	M	C119033																							
MWTF-CELL-1-PIPE	3/31/2021 7:05	ZO2646	M	C120786																							
MWTF-CELL-1-PIPE	4/7/2021 9:10	ZO9400	M	C122214																							

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC mg/L	DOC mg/L	T-Al mg/L	T-Sb mg/L	T-As mg/L	T-Ba mg/L	T-Be mg/L	T-Bi mg/L	T-B mg/L	T-Cd mg/L	T-Ca mg/L	T-Cr mg/L	T-Co mg/L	T-Cu mg/L	T-Fe mg/L	T-Pb mg/L	T-Li mg/L	T-Mg mg/L	T-Mn mg/L	T-Hg mg/L	T-Mo mg/L	T-Ni mg/L	T-P mg/L	
MWTF-CELL-1-PIPE	4/14/2021 9:10	ZP7265	M	C123955																								
MWTF-CELL-1-PIPE	4/21/2021 7:05	ZQ7690	M	C125899																								
MWTF-CELL-1-PIPE	4/28/2021 9:20	ZR8168	M	C127754																								
MWTF-CELL-1-PIPE	5/5/2021 9:10	ZS8922	M	C129714																								
MWTF-CELL-1-PIPE	5/12/2021 9:10	ZU0686	M	C131710																								
MWTF-CELL-1-PIPE	5/19/2021 8:50	ZV2960	M	C133889																								
MWTF-CELL-1-PIPE	5/26/2021 8:55	ZW0044	M	C135196																								
MWTF-CELL-1-PIPE	6/1/2021 8:15	ZX2964	M	C137634																								
MWTF-CELL-1-PIPE	6/9/2021 9:10	ZY5026	M	C139832																								
MWTF-CELL-1-PIPE	6/16/2021 9:05	ZZ8823	M	C142309																								
MWTF-CELL-1-PIPE	6/23/2021 9:15	AAK292	M	C144096																								
MWTF-CELL-1-PIPE	6/30/2021 9:05	AAY998	M	C146526																								
MWTF-CELL-1-PIPE	7/7/2021 9:05	ABJ037	M	C148208																								
MWTF-CELL-1-PIPE	7/14/2021 9:15	ABT744	M	C150153																								
MWTF-CELL-1-PIPE	7/14/2021 9:30	ACG116	M	C152141																								
MWTF-CELL-1-PIPE	7/28/2021 9:05	ACU803	M	C154587																								
MWTF-CELL-1-PIPE	8/4/2021 9:05	ADE505	M	C156226																								
MWTF-CELL-1-PIPE	8/11/2021 9:20	ADP910	M	C158213																								
MWTF-CELL-1-PIPE	8/18/2021 9:05	ADZ881	M	C160258																								
MWTF-CELL-1-PIPE	8/25/2021 9:05	AEN305	M	C162336																								
MWTF-CELL-1-PIPE	9/1/2021 9:05	AFA895	M	C164810																								
MWTF-CELL-1-PIPE	9/8/2021 9:10	AFL369	M	C166567																								
MWTF-CELL-1-PIPE	9/15/2021 9:15	AGA405	M	C168915																								
MWTF-CELL-1-PIPE	9/22/2021 9:05	AGO152	M	C171030																								
MWTF-CELL-1-PIPE	9/29/2021 9:10	AHB519	M	C173306																								
MWTF-CELL-1-PIPE	10/13/2021 9:00	AIB252	M	C177602																								
MWTF-CELL-1-PIPE	10/20/2021 9:10	AIR353	M	C180292																								
MWTF-CELL-1-PIPE	10/27/2021 9:10	AJF094	M	C182468																								
MWTF-CELL-1-PIPE	11/3/2021 8:45	AJU899	M	C184917																								
MWTF-CELL-1-PIPE	11/10/2021 9:00	AKL847	M	C187287																								
MWTF-CELL-1-PIPE	11/17/2021 8:45	AKV484	M	C188716																								
MWTF-CELL-1-PIPE	11/24/2021 8:45	ALZ947	M	C194563																								
MWTF-CELL-1-PIPE	12/1/2021 9:30	ALV048	M	C193508																								
MWTF-CELL-1-PIPE	12/8/2021 10:00	ALF843	M	C190633																								
MWTF-CELL-1-PIPE	12/15/2021 9:05	ALX790	M	C194026																								
MWTF-CELL-1-PIPE	12/22/2021 8:45	AMM561	M	C196867																								
PR-IDZ	1/10/2021 15:45	ZD6082	M	C102115																								
PR-IDZ	1/14/2021 9:10	ZD9467	M	C102853																								
PR-IDZ	1/16/2021 16:20	ZE3034	M	C103544																								
PR-IDZ	1/22/2021 1:20	ZE9297	M	C104704																								
PR-IDZ	1/28/2021 13:55	ZF8631	M	C106327																								
PR-IDZ	2/6/2021 12:00	ZH3140	M	C108285																								
PR-IDZ	2/14/2021 10:39	ZI0122	M	C109675																								
PR-IDZ	2/18/2021 14:40	ZI6457	M	C110759																								
PR-IDZ	2/26/2021 13:30	ZJ8526	M	C112618																								
PR-IDZ	3/6/2021 11:30	ZL3538	M	C115040	2.27	2.04	0.072	<0.0005	0.00023	0.033	<0.0001	<0.001	<0.05	0.000017	27.3	<0.001	<0.0002	0.00084	0.121	<0.0002	<0.002	6.34	0.0035	<0.0000019	<0.001	<0.001	
PR-IDZ	3/13/2021 14:45	ZM2424	M	C116756																								
PR-IDZ	3/20/2021 16:45	ZN1537	M	C118497																								
PR-IDZ	3/25/2021 16:10	ZN6327	M	C119610																								
PR-IDZ	4/3/2021 14:25	ZO6453	M	C121575	2.48	2.38	0.0912	<0.0005	0.00022	0.0341	<0.0001	<0.001	<0.05	0.000018	27.4	<0.001	<0.0002	0.0008	0.15	<0.0002	<0.002	6.36	0.0038	<0.0000019	<0.001	<0.001	
PR-IDZ	4/5/2021 14:40	ZO7520	M	C121801	1.85	1.65	0.101	<0.0005	0.00023	0.0318	<0.0001	<0.001	<0.05	0.000018	27.5	<0.001	<0.0002	0.00078	0.136	<0.0002	<0.002	6.24	0.0038	<0.0000019	<0.001	<0.001	
PR-IDZ	4/6/2021 15:30	ZO9479	M	C122250	2.14	2.05	0.0754	<0.0005	0.00021	0.0328	<0.0001	<0.001	<0.05	0.000013	26.7	<0.001	<0.0002	0.00075	0.114	<0.0002	<0.002	6.42	0.0035	<0.0000019	<0.001	<0.001	
PR-IDZ	4/7/2021 15:45	ZP0885	M	C122580	2.23	2.21	0.105	<0.0005	0.00028	0.0352	<0.0001	<0.001	<0.05	0.000018	28.5	<0.001	<0.0002	0.00085	0.182	<0.0002	<0.002	6.79	0.0043	<0.0000019	<0.001	0.0011	
PR-IDZ	4/16/2021 12:10	ZQ1484	M	C124799																								
PR-IDZ	4/22/2021 11:15	ZR1316	M	C126529																								
PR-IDZ	5/3/2021 11:15	ZS6024	M	C129096																								
PR-IDZ	5/8/2021 15:40	ZT6589	M	C130995																								
PR-IDZ	5/14/2021 11:05	ZU4956	M	C132327																								
PR-IDZ	5/21/2021 11:30	ZV5662	M	C134400																								
PR-IDZ	5/27/2021 12:20	ZW4851	M	C136103																								
PR-IDZ	6/3/2021 12:10	ZX7153	M	C138404																								
PR-IDZ	6/9/2021 14:45	ZY6857	M	C140198																								
PR-IDZ	6/17/2021 13:50	AAC470	M	C142866																								
PR-IDZ	6/24/2021 15:50	AAQ181	M	C144970																								
PR-IDZ	6/30/2021 11:55	AAZ004	M	C146528	2.23	2.36	0.392	<0.0005	0.0005	0.0509	<0.0001	<0.001	<0.05	0.000055	31.6	0.0014	0.00032	0.0013	0.671	0.00042	0.0022	7.40	0.0167	0.0000019	<0.001	0.0034	
PR-IDZ	7/7/2021 12:30	ABK533	M	C148516	2.06	1.94	0.0843	<0.0005	0.00022	0.0424	<0.0001	<0.001	<0.05	0.000017	29.1	<0.001	<0.0002	0.00106	0.177	<0.0002	<0.002	7.11	0.0069	<0.0000019	<0.001	0.0019	
PR-IDZ	7/8/2021 12:30	ABM763	M	C148925																								
PR-IDZ	7/14/2021 15:05	ABX616	M	C150851	2.07	2.69	0.0592	<0.0005	0.00024	0.0377	<0.0001	<0.001	<0.05	0.000025	28.4	<0.001	<0.0002	0.00076	0.096	<0.0002	<0.002	6.25	0.0044	<0.0000019	<0.001	<0.001	
PR-IDZ	7/15/2021 16:55	ABY393	M	C150960																								

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
PR-IDZ	7/21/2021 16:40	ACH924	M	C152478	2.44	2.64	0.143	<0.0005	0.00027	0.0393	<0.0001	<0.001	<0.05	0.000036	28.7	<0.001	<0.0002	0.0009	0.227	<0.0002	<0.002	6.47	0.0065	<0.0000019	<0.001	0.0014	
PR-IDZ	7/27/2021 12:00	ACT045	M	C154246	2.71	2.46	0.0841	<0.0005	0.00022	0.0362	<0.0001	<0.001	<0.05	0.000027	28.8	<0.001	<0.0002	0.00081	0.134	<0.0002	<0.002	5.98	0.0041	0.0000026	<0.001	0.001	
PR-IDZ	7/31/2021 13:40	ADA376	M	C155508																							
PR-IDZ	8/11/2021 14:00	ADR992	M	C158615	2.57	3.23	0.0495	<0.0005	0.00021	0.038	<0.0001	<0.001	<0.05	0.000018	32.0	<0.001	<0.0002	0.00079	0.092	<0.0002	<0.002	6.46	0.0038	<0.0000019	0.0012	<0.001	
PR-IDZ	8/18/2021 17:00	AED521	M	C160793	2.62	2.27	0.0478	<0.0005	0.00025	0.0386	<0.0001	<0.001	<0.05	0.000026	29.3	<0.001	<0.0002	0.00087	0.064	<0.0002	<0.002	7.32	0.003	<0.0000019	<0.001	0.001	
PR-IDZ	8/25/2021 16:00	AEP247	M	C162703	3.43	3.71	0.459	<0.0005	0.00058	0.057	<0.0001	<0.001	<0.05	0.000051	30.4	0.0011	0.00033	0.00172	0.698	0.00038	0.0029	7.11	0.0157	<0.0000019	0.0012	0.002	
PR-IDZ	9/1/2021 14:40	AFC998	M	C165103	2.29	2.39	0.0422	<0.0005	0.00019	0.0386	<0.0001	<0.001	<0.05	0.000022	33.4	<0.001	<0.0002	0.00063	0.087	<0.0002	<0.002	6.79	0.0032	<0.0000019	0.001	<0.001	
PR-IDZ	9/8/2021 12:20	AFO062	M	C167059	2.35	2.18	0.046	<0.0005	0.00025	0.0371	<0.0001	<0.001	<0.05	0.000017	29.6	<0.001	<0.0002	0.00074	0.068	<0.0002	<0.002	7.28	0.0031	<0.0000019	<0.001	<0.001	
PR-IDZ	9/15/2021 11:45	AGD170	M	C169361	2.69	2.88	0.0432	<0.0005	0.00023	0.0356	<0.0001	<0.001	<0.05	0.000019	28.0	<0.001	<0.0002	0.00086	0.076	<0.0002	0.0028	6.72	0.0035	<0.0000019	<0.001	0.0012	
PR-IDZ	9/19/2021 14:55	AGJ669	M	C170331	2.42	2.75	0.0594	<0.0005	0.00026	0.0362	<0.0001	<0.001	<0.05	0.000028	28.7	<0.001	<0.0002	0.00075	0.091	<0.0002	<0.002	6.97	0.0036	<0.0000019	<0.001	0.001	
PR-IDZ	9/22/2021 12:15	AGR069	M	C171568	2.35	2.24	0.0438	<0.0005	0.00024	0.036	<0.0001	<0.001	<0.05	0.000025	28.6	<0.001	<0.0002	0.00098	0.075	<0.0002	<0.002	7.58	0.0037	<0.0000019	<0.001	0.0023	
PR-IDZ	9/29/2021 13:50	AHF735	M	C174181	2.30	2.13	0.065	<0.0005	0.00027	0.037	<0.0001	<0.001	<0.05	0.000019	27.9	<0.001	<0.0002	0.00077	0.097	<0.0002	<0.002	7.42	0.0035	<0.0000019	0.001	0.0011	
PR-IDZ	10/6/2021 12:50	AHR788	M	C176098	1.95	2.78	0.0554	<0.0005	<0.0001	0.0361	<0.0001	<0.001	<0.05	<0.00001	29.7	0.0022	<0.0002	0.00077	0.093	<0.0002	<0.002	5.73	0.0032	<0.0000019	0.0016	<0.001	
PR-IDZ	10/13/2021 12:25	AIE378	M	C178189	2.63	2.96	0.0661	<0.0005	0.0002	0.0335	<0.0001	<0.001	<0.05	0.000025	26.5	<0.001	<0.0002	0.00072	0.114	<0.0002	<0.002	5.83	0.0039	<0.0000019	<0.001	0.0011	
PR-IDZ	10/20/2021 14:00	AIT537	M	C180689	2.85	2.28	0.0531	<0.0005	0.00018	0.0323	<0.0001	<0.001	<0.05	0.000017	24.6	<0.001	<0.0002	0.00073	0.086	<0.0002	<0.002	6.05	0.0027	<0.0000019	<0.001	<0.001	
PR-IDZ	10/27/2021 14:05	AJH728	M	C182990																							
PR-IDZ	11/6/2021 12:25	AKD995	M	C186250	2.31	2.44	0.0559	<0.0005	0.00023	0.035	<0.0001	<0.001	<0.05	0.000047	28.5	<0.001	<0.0002	0.00083	0.099	<0.0002	<0.002	6.02	0.0037	<0.0000019	<0.001	<0.001	
PR-IDZ	11/10/2021 16:00	AKN276	M	C187468	2.25	2.35	0.0337	<0.0005	0.00018	0.0321	<0.0001	<0.001	<0.05	0.000017	27.3	<0.001	<0.0002	0.00065	0.054	<0.0002	<0.002	5.51	0.0022	<0.0000019	<0.001	<0.001	
PR-IDZ	11/17/2021 12:50	AKY312	M	C189131																							
PR-IDZ	11/25/2021	FJ2101334-004	M	FJ2101334	2.76	2.57	0.0563	<0.00010	0.00023	0.0339	<0.000100	<0.000050	<0.010	0.0000203	26.0	<0.00050	<0.00010	0.00072	0.062	<0.000050	0.0015	6.47	0.00253	<0.0000050	0.000821	0.00073	<0.050
PR-IDZ	12/2/2021 13:30	FJ2101375-004	M	FJ2101375	2.71	2.65	0.0453	<0.00010	0.00023	0.0362	<0.000100	<0.000050	<0.010	0.0000172	27.5	<0.00050	<0.00010	0.00073	0.068	<0.000050	0.0015	6.18	0.00261	<0.0000050	0.000836	0.00094	<0.050
PR-IDZ	12/7/2021 12:40	FJ2101420-003	M	FJ2101420	2.56	3.34	0.0870	<0.00010	0.00026	0.0331	<0.000100	<0.000050	<0.010	0.0000202	28.2	<0.00050	<0.00010	0.00077	0.116	0.000069	0.0014	6.57	0.00374	<0.0000050	0.000784	0.00086	<0.050
PR-IDZ	12/15/2021 15:30	FJ2101472-004	M	FJ2101472	2.62	3.22	0.0062	<0.00010	0.00020	0.0312	<0.000100	<0.000050	<0.010	0.0000065	27.1	<0.00050	<0.00010	0.00089	<0.010	<0.000050	0.0012	6.26	0.00056	<0.0000050	0.000871	0.00066	<0.050
PR-IDZ	12/23/2021 14:15	FJ2101512-003	M	FJ2101512	2.58	3.05	0.158	<0.00010	0.00030	0.0375	<0.000100	<0.000050	<0.010	0.0000370	29.3	<0.00050	0.00015	0.00205	0.242	0.000175	0.0014	6.76	0.00842	<0.0000050	0.000708	0.00149	<0.050
PR-IDZ	12/30/2021 14:45	FJ2200029-002	M	FJ2200029	3.01	3.31	0.0326	<0.00010	0.00020	0.0339	<0.000100	<0.000050	<0.010	0.0000164	30.3	<0.00050	<0.00010	0.00070	0.038	<0.000050	0.0014	6.85	0.00239	<0.0000050	0.000880	0.00088	<0.050
PR-Isolation-Zone	1/12/2021 9:00	ZD9466	M	C102853																							
PR-Isolation-Zone	1/16/2021 16:15	ZE3033	M	C103544																							
PR-Isolation-Zone	1/22/2021 13:30	ZE9300	M	C104704																							
PR-Isolation-Zone	1/28/2021 13:40	ZF8630	M	C106327																							
PR-Isolation-Zone	2/6/2021 11:50	ZH3139	M	C108285																							
PR-Isolation-Zone	2/14/2021 10:45	ZI0123	M	C109675																							
PR-Isolation-Zone	2/18/2021 14:30	ZI6456	M	C110759																							
PR-Isolation-Zone	2/26/2021 12:50	ZJ8525	M	C112618																							
PR-Isolation-Zone	3/6/2021 12:15	ZL3539	M	C115040																							
PR-Isolation-Zone	3/13/2021 14:30	ZM2423	M	C116756																							
PR-Isolation-Zone	3/20/2021 16:20	ZN1536	M	C118497																							
PR-Isolation-Zone	3/25/2021 17:00	ZN6326	M	C119610																							
PR-Isolation-Zone	4/4/2021 12:10	ZO6465	M	C121580	1.61	1.75	0.169	<0.0005	0.00041	0.0814	<0.0001	<0.001	<0.05	<0.00001	40.3	<0.001	<0.0002	0.00065	0.318	<0.0002	0.0041	9.70	0.0785	0.000002	0.0015	<0.001	
PR-Isolation-Zone	4/6/2021 15:05	ZO9473	M	C122250	1.48	1.65	0.0973	<0.0005	0.00022	0.081	<0.0001	<0.001	<0.05	<0.00001	32.4	<0.001	<0.0002	<0.0005	0.094	<0.0002	0.0025	7.35	0.0151	<0.0000019	0.0016	<0.001	
PR-Isolation-Zone	4/7/2021 15:25	ZP0884	M	C122580	1.60	1.57	0.0561	<0.0005	0.00017	0.0799	<0.0001	<0.001	<0.05	0.000011	33.5	<0.001	<0.0002	<0.0005	0.09	<0.0002	0.0021	7.65	0.006	<0.0000019	0.0012	<0.001	
PR-Isolation-Zone	4/16/2021 11:50	ZQ1483	M	C124799																							
PR-Isolation-Zone	4/22/2021 11:00	ZR1317	M	C126529																							
PR-Isolation-Zone	5/3/2021 11:00	ZS6023	M	C129096																							
PR-Isolation-Zone	5/8/2021 15:20	ZT6588	M	C130995																							
PR-Isolation-Zone	5/14/2021 10:45	ZU4955	M	C132327																							
PR-Isolation-Zone	5/21/2021 10:30	ZV5661	M	C134400																							
PR-Isolation-Zone	5/27/2021 12:00	ZW4843	M	C136103																							
PR-Isolation-Zone	6/3/2021 11:00	ZX7152	M	C138404																							
PR-Isolation-Zone	6/9/2021 14:30	ZY6856	M	C140198																							
PR-Isolation-Zone	6/17/2021 13:30	AAC469	M	C142866																							
PR-Isolation-Zone	6/24/2021 15:35	AAQ180	M	C144970																							
PR-Isolation-Zone	6/30/2021 11:45	AAZ009	M	C146528																							
PR-Isolation-Zone	7/8/2021 13:00	ABM764	M	C148925																							
PR-Isolation-Zone	7/15/2021 16:30	ABY392	M	C150960																							
PR-Isolation-Zone	7/21/2021 16:15	ACH934	M	C152481																							
PR-Isolation-Zone	7/31/2021 13:20	ADA375	M	C155508																							
PR-Isolation-Zone	8/11/2021 13:30	ADR993	M	C158615																							
PR-Isolation-Zone	8/18/2021 12:20	AED523	M	C160793																							
PR-Isolation-Zone	8/25/2021 17:35	AEP249	M	C162703																							
PR-Isolation-Zone	9/1/2021 16:45	AFD000	M	C165103																							
PR-Isolation-Zone	9/8/2021 11:50	AFO063	M	C167059																							
PR-Isolation-Zone	9/15/2021 11:05	AGD166	M	C169361																							
PR-Isolation-Zone	9/22/2021 11:20	AGR071	M	C171568																							
PR-Isolation-Zone	9/29/2021 13:00	AHI613	M	C174181																							
PR-Isolation-Zone	10/6/2021 13:10	AHR790	M	C176098																							
PR-Isolation-Zone	10/13/2021 12:40	AIE381	M	C178189																							
PR-Isolation-Zone	10/20/2021 13:00	AIT540	M	C180689																							
PR-Isolation-Zone	10/27/2021 15:00	AJH729	M	C182990																							
PR-Isolation-Zone	11/3/2021 12:55	AJX287	M	C185315																							

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
PR-Isolation-Zone	11/10/2021 13:00	AKN279	M	C187468																								
PR-US-R5A	5/11/2021 13:55	ZU0126	M	C131574	5.52	5.30	6.66	<0.001	0.00223	0.2	0.00026	<0.002	<0.1	0.000206	36.7	0.0113	0.00257	0.0095	7.13	0.00341	0.0079	9.60	0.0866	<0.0000019	<0.002	0.0104	
PR-US-R5A	5/12/2021 13:25	ZU2105	M	C131920	6.10	6.24	4.29	<0.0005	0.00218	0.209	0.00023	<0.001	<0.05	0.000223	40.0	0.0064	0.00243	0.00799	6.81	0.00338	0.0078	10.6	0.0913	0.0000127	<0.001	0.0099	
PR-US-R5A	5/13/2021 13:25	ZU4965	M	C132331	6.22	6.47	2.3	<0.0005	0.00176	0.161	0.00019	<0.001	<0.05	0.000181	36.4	0.0039	0.00182	0.00645	4.89	0.00265	0.0063	9.63	0.0801	0.0000098	<0.001	0.0077	
PR-US-R5A	7/27/2021 13:20	ACT047	M	C154246	3.01	2.52	0.0476	<0.0005	0.00019	0.0336	<0.0001	<0.001	<0.05	0.000014	29.0	<0.001	<0.0002	0.00066	0.1	<0.0002	<0.002	5.76	0.0064	<0.0000019	<0.001	<0.001	
PR-US-R5A	8/11/2021 14:50	ADR991	M	C158615	2.67	2.12	0.0379	<0.0005	0.00024	0.087	<0.0001	<0.001	<0.05	0.000049	73.4	<0.001	<0.0002	0.00073	0.081	<0.0002	0.0061	11.4	0.0191	<0.0000019	0.001	0.0011	
PR-US-R5A	6/30/2021 13:30	AAZ008	M	C146528	2.43	2.25	0.117	<0.0005	0.00024	0.0364	<0.0001	<0.001	<0.05	0.000033	29.3	<0.001	<0.0002	0.00083	0.189	<0.0002	<0.002	6.77	0.0074	<0.0000019	<0.001	0.0016	
PR-US-R5A	7/7/2021 14:00	ABK534	M	C148516	2.37	2.01	0.0825	<0.0005	0.00017	0.0366	<0.0001	<0.001	<0.05	0.000022	26.9	<0.001	<0.0002	0.00098	0.161	<0.0002	<0.002	6.43	0.0078	<0.0000019	<0.001	0.0025	
PR-US-R5A	7/14/2021 11:05	ABX617	M	C150851	2.08	2.89	0.0422	<0.0005	0.0002	0.0332	<0.0001	<0.001	<0.05	0.00002	27.3	<0.001	<0.0002	0.00074	0.077	<0.0002	<0.002	5.87	0.0033	<0.0000019	<0.001	<0.001	
PR-US-R5A	7/21/2021 12:50	ACH923	M	C152478	2.28	2.66	0.114	<0.0005	0.00026	0.0358	<0.0001	<0.001	<0.05	0.000022	27.7	<0.001	<0.0002	0.00091	0.192	<0.0002	<0.002	6.05	0.0065	<0.0000019	<0.001	0.001	
PR-US-R5A	8/18/2021 13:10	AED522	M	C160793	2.03	2.15	0.0427	<0.0005	0.00026	0.0508	<0.0001	<0.001	<0.05	0.00002	39.6	<0.001	<0.0002	0.00082	0.071	<0.0002	0.0031	9.35	0.0087	<0.0000019	0.0011	0.0012	
PR-US-R5A	8/25/2021 13:20	AEP246	M	C162703	2.98	3.45	0.222	<0.0005	0.00045	0.0659	<0.0001	<0.001	<0.05	0.00005	43.9	<0.001	0.00033	0.0012	0.403	0.00025	0.0046	8.65	0.0155	<0.0000019	0.001	0.0017	
PR-US-R5A	9/1/2021 13:30	AFC997	M	C165103	2.33	2.24	0.0409	<0.0005	0.00019	0.0501	<0.0001	<0.001	<0.05	0.000023	45.8	<0.001	<0.0002	0.00065	0.081	<0.0002	0.0033	8.31	0.0075	<0.0000019	<0.001	<0.001	
PR-US-R5A	9/8/2021 13:20	AFO061	M	C167059	2.27	2.32	0.0437	<0.0005	0.00021	0.0374	<0.0001	<0.001	<0.05	0.000014	30.3	<0.001	<0.0002	0.00072	0.071	<0.0002	<0.002	7.26	0.0033	<0.0000019	<0.001	<0.001	
PR-US-R5A	9/15/2021 13:50	AGD169	M	C169361	2.22	1.07	0.0292	<0.0005	0.00024	0.0824	<0.0001	<0.001	<0.05	0.000028	71.2	<0.001	<0.0002	0.00069	0.07	<0.0002	0.007	12.8	0.0067	<0.0000019	<0.001	<0.001	
PR-US-R5A	9/19/2021 12:35	AGJ668	M	C170331	2.52	2.72	0.0581	<0.0005	0.0002	0.0344	<0.0001	<0.001	<0.05	0.000027	27.9	<0.001	<0.0002	0.00085	0.091	<0.0002	<0.002	6.70	0.0032	<0.0000019	<0.001	<0.001	
PR-US-R5A	9/22/2021 13:25	AGR070	M	C171568	2.45	2.25	0.0898	<0.0005	0.00032	0.0412	<0.0001	<0.001	<0.05	0.00003	31.1	<0.001	<0.0002	0.00106	0.17	<0.0002	<0.002	7.77	0.0073	<0.0000019	<0.001	0.0021	
PR-US-R5A	9/29/2021 15:40	AHF736	M	C174181	2.39	1.92	0.0743	<0.0005	0.00027	0.0379	<0.0001	<0.001	<0.05	0.000019	27.4	<0.001	<0.0002	0.00072	0.113	<0.0002	<0.002	6.86	0.0044	<0.0000019	<0.001	<0.001	
PR-US-R5A	10/6/2021 14:55	AHR787	M	C176098	2.89	2.59	0.163	<0.0005	0.00015	0.0431	<0.0001	<0.001	<0.05	0.000038	30.0	0.001	<0.0002	0.00101	0.336	<0.0002	<0.002	5.82	0.0084	<0.0000019	<0.001	0.0011	
PR-US-R5A	10/13/2021 14:00	AIE380	M	C178189	2.78	3.33	0.108	<0.0005	0.00022	0.0326	<0.0001	<0.001	<0.05	0.000022	25.5	<0.001	<0.0002	0.00092	0.188	<0.0002	<0.002	5.39	0.0053	<0.0000019	<0.001	0.0013	
PR-US-R5A	10/20/2021 15:50	AIT538	M	C180689	2.68	2.26	0.0561	<0.0005	0.00018	0.0319	<0.0001	<0.001	<0.05	0.00002	25.3	<0.001	<0.0002	0.00072	0.099	<0.0002	<0.002	6.02	0.0033	<0.0000019	<0.001	<0.001	
PR-US-R5A	11/10/2021 15:00	AKN277	M	C187468	2.10	2.25	0.0678	<0.0005	0.00022	0.0325	<0.0001	<0.001	<0.05	0.000019	26.9	<0.001	<0.0002	0.0008	0.12	<0.0002	<0.002	5.57	0.0039	<0.0000019	<0.001	<0.001	
PR-US-R5A	11/25/2021	FJ2101334-006	M	FJ2101334	2.87	2.69	0.0499	<0.00010	0.00022	0.0333	<0.000100	<0.000050	<0.010	0.0000183	24.8	<0.00050	<0.00010	0.00079	0.053	<0.000050	0.0013	6.00	0.00250	<0.0000050	0.000800	0.00073	<0.050
PR-US-R5A	12/2/2021 16:00	FJ2101375-005	M	FJ2101375	2.22	2.26	0.0705	<0.00010	0.00026	0.0785	<0.000100	<0.000050	0.013	0.0000402	73.1	<0.00050	0.00013	0.00074	0.183	0.000089	0.0069	12.0	0.0133	<0.0000050	0.000761	0.00105	<0.050
PR-US-R5A	12/23/2021 15:00	FJ2101512-004	M	FJ2101512	2.56	3.05	0.175	<0.00010	0.00034	0.0376	<0.000100	<0.000050	<0.010	0.0000368	28.0	<0.00050	0.00014	0.00099	0.298	0.000175	0.0014	7.03	0.00865	<0.0000050	0.000755	0.00114	<0.050
R5a_MOB_US	7/27/2021 13:00	ACT046	M	C154246	5.20	4.43	0.587	<0.0005	0.00054	0.143	<0.0001	<0.001	<0.05	0.000031	37.1	0.0014	0.0004	0.00187	1.04	0.00052	0.0046	8.56	0.0267	0.0000025	<0.001	0.0023	
RBAC-Sump-BT	5/2/2021 14:25	ZS6049	M	C129102	1.70	1.59	0.736	0.00091	0.00164	0.174	<0.0001	<0.001	0.179	0.000065	49.6	0.0024	0.00136	0.00292	1.74	0.0008	0.168	14.0	0.055	0.0000056	0.0074	0.0092	
RBAC-Sump-BT	7/24/2021 13:30	ACO404	M	C153513	1.18	0.50	2.16	<0.0005	0.00245	0.277	0.00017	<0.001	0.119	0.000176	58.9	0.0038	0.00272	0.00761	5.27	0.00245	0.241	15.2	0.101	0.0000056	0.003	0.0072	
RBAC-Sump-BT	9/4/2021 14:40	AFH293	M	C165785	0.62	0.57	0.0801	<0.0005	0.00025	0.219	<0.0001	<0.001	0.096	0.000018	61.6	<0.001	<0.0002	0.00054	0.162	<0.0002	0.213	15.7	0.0131	<0.0000019	0.002	0.0013	
RBAC-Sump-BT	10/12/2021 13:50	AIB247	M	C177600	3.18	2.15	0.105	<0.0005	0.00046	0.0445	<0.0001	<0.001	0.081	0.000037	31.7	<0.001	0.00088	0.00154	0.199	<0.0002	0.0323	8.54	0.0274	<0.0000019	0.0015	0.0053	
RSEM-L5E-P2-EOP	6/29/2021 16:00	AAY931	M	C146501	9.34	8.85	0.527	0.00313	0.00203	0.0638	<0.0001	<0.001	0.732	0.000036	26.8	0.0022	0.00058	0.00525	0.777	0.00052	0.144	12.3	0.0337	0.0000037	0.0043	0.0033	
RSEM-L5E-P2-EOP	6/30/2021 0:40	AAZ005	M	C146528	4.42	4.00	0.0409	0.00054	0.00058	0.0441	<0.0001	<0.001	0.11	0.000016	78.8	0.003	<0.0002	0.00202	0.084	<0.0002	0.0355	43.9	0.0042	<0.0000019	0.0121	0.0036	
RSEM-L5E-P2-EOP	7/1/2021 12:15	ABB247	M	C146903	4.29	3.32	0.0507	0.00062	0.00067	0.0431	<0.0001	<0.001	0.13	<0.00001	77.0	<0.001	<0.0002	0.00181	0.07	<0.0002	0.0453	41.6	0.005	<0.0000019	0.0147	0.0021	
RSEM-L5E-P2-EOP	7/2/2021 11:10	ABB256	M	C146905	4.38	4.26	0.0463	0.00067	0.0007	0.0428	<0.0001	<0.001	0.141	0.00002	74.4	0.0027	<0.0002	0.00179	0.098	<0.0002	0.05	38.9	0.0067	<0.0000019	0.0158	0.0047	
RSEM-L5E-P2-EOP	7/9/2021 12:30	ABM750	M	C148923	4.82	4.11	0.0373	0.00077	0.00058	0.0454	<0.0001	<0.001	0.193	<0.00001	70.2	<0.001	<0.0002	0.002	0.048	<0.0002	0.0465	37.4	0.0037	<0.0000019	0.0193	0.0022	
RSEM-L5E-P2-EOP	7/10/2021 14:00	ABP529	M	C149429	3.67	3.22	0.0396	0.00069	0.00058	0.044	<0.0001	<0.001	0.217	<0.00001	70.4	<0.001	<0.0002	0.00201	0.051	<0.0002	0.056	40.3	0.0034	<0.0000019	0.0187	<0.001	
RSEM-L5E-P2-EOP	7/11/2021 12:00	ABP675	M	C149459	3.32	4.02	0.0496	0.0008	0.00064	0.0463	<0.0001	<0.001	0.227	0.000011	72.6	<0.001	<0.0002	0.00207	0.068	<0.0002	0.0593	36.9	0.0037	0.0000019	0.022	0.0023	
RSEM-L5E-P2-EOP	7/12/2021 6:30	ABP855	M	C149486	3.27	3.79	0.0668	0.00085	0.00064	0.0454	<0.0001	<0.001	0.216	0.000014	70.7	0.0026	<0.0002	0.00372	0.074	<0.0002	0.0567	35.6	0.0028	<0.0000019	0.0218	0.0029	
RSEM-L5E-P2-EOP	7/13/2021 11:00	ABU092	M	C150243	2.79	3.54	0.0499	0.00081	0.00078	0.0444	<0.0001	<0.001	0.166	0.000021	69.2	0.0013	<0.0002	0.00177	0.064	<0.0002	0.0519	35.3	0.0036	<0.0000019	0.0223	0.005	
RSEM-L5E-P2-EOP	7/14/2021 12:20	ABX612	M	C150851	3.34	3.82	0.107	0.00085	0.00081	0.044	<0.0001	<0.001	0.166	0.000022	67.7	<0.001	<0.0002	0.00168	0.071	<0.0002	0.0563	31.6	0.0029	<0.0000019	0.023	0.0023	
RSEM-L5E-P2-EOP	7/14/2021 12:30	ABX613	D	C150851	3.31	4.83	0.141	0.00087	0.00078	0.0442	<0.0001	<0.001	0.164	0.00002	67.8	<0.001	<0.0002	0.0017	0.201	<0.0002	0.0541	32.2	0.0038	<0.0000019	0.0228	0.0024	
RSEM-L5E-P2-EOP	7/15/2021 12:25	ABY389	M	C150960	3.18	3.61	0.0453	0.00092	0.00074	0.0461	<0.0001	<0.001	0.156	0.00002	67.3	0.0019	<0.0002	0.00179	0.079	<0.0002	0.0542	31.2	0.0035	<0.0000019	0.0236	0.0031	
RSEM-L5E-P2-EOP	7/16/2021 10:35	ABZ188	M	C151029	3.43	3.19	0.0532	0.00087	0.00073	0.0431	<0.0001	<0.001	0.155	0.000023	66.5	0.0012	<0.0002	0.00167	0.072	<0.0002	0.0529	30.8	0.0029	<0.0000019	0.0235	0.0025	
RSEM-L5E-P2-EOP	7/17/2021 12:20	ACC244	M	C151542	3.64	3.70	0.054	0.00095	0.00074	0.0447	<0.0001	<0.001	0.257	<0.00001	70.2	0.0018	0.0002	0.002	0.081	<0.0002	0.0638	37.2	0.0045	<0.0000019	0.0242	0.005	
RSEM-L5E-P2-EOP	7/18/2021 15:50	ACC420	M	C151549	2.82	2.82	0.059	0.00088	0.00064	0.043	<0.0001	<0.001	0.253	<0.00001	68.3	<0.001	<0.0002	0.00175	0.092	<0.0002	0.0634	36.5	0.0037	0.0000022	0.0232	0.0029	
RSEM-L5E-P2-EOP	7/19/2021 11:55	ACF040	M	C151946	2.70	3.09	0.0752	0.00091	0.00069	0.043	<0.0001	<0.001	0.16	0.00002	65.9	<0.001	<0.0002	0.0015	0.072	<0.0002	0.0558	30.7	0.0032	<0.0000019	0.0249	0.0027	
RSEM-L5E-P2-EOP	7/20/2021 10:45	ACH819	M	C152456	3.96	2.95	0.102	0.00107	0.00044	0.0465	<0.0001	<0.001	0.212	0.000028	68.8	0.0011	<0.0002	0.00177	0.078	<0.0002	0.0622	36.9	0.0027	<0.0000019	0.0269	0.0031	
RSEM-L5E-P2-EOP	7/21/2021 11:20	ACH930	M	C152481	3.58	3.18	0.0595	0.00083	0.0006	0.0422	<0.0001	<0.001	0.249	<0.00001	71.1	0.0011	<0.0002	0.00152	0.119	<0.0002	0.0686	33.1	0.0038	<0.0000019	0.0221	0.0025	
RSEM-L5E-P2-EOP	7/22/2021 12:35	ACL550	M	C152988	4.30	3.60	0.255	0.00075	0.0008	0.0557	<0.0001	<0.001	0.235	0.000019	88.4	0.0012	0.00035	0.00226	0.556	0.00036	0.0629	35.0	0.0212	<0.0000019	0.0204	0.0027	
RSEM-L5E-P2-EOP	7/23/2021 12:30	ACL703	M	C153012	3.40	3.05	0.188	0.00071	0.00067	0.0507	<0.0001	<0.001	0.222	0.000014	86.9	0.0011	0.00027	0.00192	0.408	0.00025	0.0594	32.0	0.015	0.0000022	0.0187	0.0023	
RSEM-L5E-P2-EOP	8/23/2021 13:00	AEL593	M	C161925	4.30	3.52	0.112	0.00086	0.00072	0.0289	<0.0001	<0.001	0.219	0.000094	99.8	<0.001	0.00275	0.0022	0.204	<0.0002	0.0565	47.1	0.24	<0.0000019	0.0194	0.0115	
RSEM-L5E-P2-EOP	8/24/2021 13:25	AEN132	M	C162291	4.15	3.47	0.117	0.00094	0.00046	0.0288	<0.0001	<0.001	0.22	0.000086	101	<0.001	0.00276	0.00211	0.156	<0.0002	0.055	45.8	0.24	<0.0000019	0.0186	0.0118	
RSEM-L5E-P2-EOP	8/24/2021 13:35	AEN133	D	C162291	4.23	3.67	0.123	0.00089	0.00065	0.0306	<0.0001	<0.001	0.211	0.000092	103	<0.001	0.00286	0.00221	0.228	<0.0002	0.0558	46.5	0.248	<0.0000019	0.0197	0.0121	
RSEM-L5E-P2-EOP	8/25/2021 11:00	AEP243	M	C162703	3.44	4.01	0.104	<0.0025	0.00074	0.0298	<0.0005	<0.005	<0.25	0.000076	102	<0.005	0.0027	<0.0025	0.112	<0.001	0.057	44.1	0.234	<0.0000019	0.0185	0.0124	
RSEM-L5E-P2-EOP	8/26/2021 15:45	AER559	M	C163145	4.07	3.21	0.072	<0.0025	0.00037	0.0279	<0.0005	<0.005	<0.25	0.000067	107	<0.005	0.00292	<0.0025	0.093	<0.001	0.059	49.2	0.243	<0.0000019	0.017	0.0134	
RSEM-L5E-P2-EOP	9/5/2021 10:55	AFI822	M	C166081	3.33	3.24	0.0681	0.00056	0.00044	0.0337	<0.0001	<0.001	<0.05	0.000071	117	<0.001	0.00254	0.00195	0.063	<0.0002	0.0591	42.3	0.166	<0.0000019	0.0172	0.0145	
RSEM-L5E-P2-EOP	9/6/2021 10:05	AFI721	M	C166063	3.01	2.95	0.044	<0.0025	0.00057	0.0381	<0.0005	<0.005	0.273	0.000058	115	<0.005	0.0024	<0.0025	<0.05	<0.001	0.066	46.6	0.165	<0.0000019	0.0175	0.0138	
RSEM-L5E-P2-EOP	9/7/2021 15:30	AFL347	M	C166557	3.35	3.06	0.05	<0.0025	<0.0005	0.0373	<0.0005	<0.005	0.251	0.00008	119	<0.005	0.0026	<0.0025	<0.05	<0.001	0.065	49.4	0.166	<0.0000019	0.0178	0.015	
RSEM-L5E-P2-EOP	9/8/2021 15:40	AFO059	M	C167059	3.22	3.43	0.044	<0.0025	0.00052	0.037	<0.0005	<0.005	<0.25	0.000063	120	<0.005	0.0025	<0.0025	<0.05	<0.001	0.062	51.6	0.166	<0.0000019	0.0183	0.0155	
RSEM-L5E-P2-EOP	9/9/2021 16:20	AFQ847	M	C167445	3.42	2.89	0.046	<0.0025	0.00058	0.0363	<0.0005	<0.005	<0.25	0.000053	119	<0.005	0.0023	<0.0025	0.063	<0.001	0.062	50.8	0.155	<0.0000019	0.0176	0.015	
RSEM-L5E-P2-EOP	9/10/2021 12:20	AFQ883	M	C167449	3.72	3.33	0.038	<0.0025	<0.0005	0.0339	<0.0005	<0.005	<0.25	0.000076	117	<0.005	0.0021	<0.0025	<0.05	<0.001	0.06	50.5	0.145	<0.0000019	0.0174	0.0151	
RSEM-L5E-P2-EOP	9/11/2021 16:00	AFV355	M	C168029	4.07	3.94	0.074	<0.0025	<0.0005	0.0334	<0.0005	<0.005	<0.25	0.000078	120	<0.005	0.0021	<0.0025	0.072	<0.001	0.062	51.1	0.14	<0.0000019	0.0163	0.0143	
RSEM-L5E-P2-EOP	9/12/2021 10:30	AFV419	M	C168037	3.12	3.15	0.091	<0.0025	<0.0005	0.0322	<0.0005	<0.005	<0.25	0.000075	118	<0.005	0.002	<0.0025	0.057	<0.001	0.061	49.5	0.127	<0.0000019	0.0161	0.0147	
RSEM-L5E-P2-EOP	9/13/2021 6:20	AFV246	M	C168020	2.99	3.57	0.062	<0.0025	<0.0005	0.0315	<0.0005	<0.005	<0.25	0.000053	121	<0.005	0.002	<0.0025	0.058	<0.001	0.059	50.1	0.119	<0.0000019	0.0159	0.0137	
RSEM-L5E-P2-EOP	9/14/2021 12:05	AGB019	M	C169017	3.47	3.74	0.052	<0.0025	0.00052	0.0272	<0.0005	<0.005	<0.25	<0.00005	117	<0.005	0.0015	<0.0025	0.053	<0.001	0.06	49.8	0.0918	<0.0000019	0.016	0.0138	
RSEM-L5E-P2-EOP	9/15/2021 14:50	AGD167	M	C169361	3.75	3.58	0.043	<0.0025	0.00053	0.026	<0.0005	<0.005	0.275	<0.00005	110	<0.005	0.0011	<0.0025	0.062	<0.001	0.067	48.8	0.06	<0.0000019	0.0182	0.0122	
RSEM-L5E-P2-EOP	9/16/2021 15:30	AGG332	M	C169805	2.85	3.41	0.057	<0.0025	0.00058	0.027	<0.0005	<0.005	<0.25	<0.00005	109	<0.005	<0.001	<0.0025	0.104	<0.001	0.075	51.7	0.0424	<0.0000019	0.0189	0.0103	
RSEM-L5E-P2-EOP	9/17/2021 12:30	AGG310	M	C169799	3.16	4.06	0.054	<0.0025	0.00054	0.0264	<0.0005	<0.005	0.265	<0.00005	106	<0.005	<0.001	<0.0025	0.07	<0.001	0.077	51.7	0.0298	<0.0000019	0.0192	0.0095	
RSEM-L5E-P2-EOP	9/18/2021 16:30	AGJ637	M	C170329	3.21	3.35	0.057	0.00077	0.00053	0.0256	<0.0001	<0.001	0.291	<0.00001	101	<0.001	0.00043	0.00158	0.065	<0.0002	0.0799	48.7	0.0181	<0.0000019	0.0197	0.0072	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-P2-EOP	9/19/2021 11:55	AGJ667	M	C170331	3.36	3.20	0.035	<0.0025	<0.0005	0.0273	<0.0005	<0.005	0.322	<0.00005	105	<0.005	<0.001	0.00274	0.059	<0.001	0.084	50.1	0.014	<0.0000019	0.0213	0.0076	
RSEM-L5E-P2-EOP	9/20/2021 14:10	AGM223	M	C170680	3.48	3.11	0.0329	0.00081	0.00058	0.0255	<0.0001	<0.001	0.304	0.000011	106	<0.001	0.00036	0.00151	0.057	<0.0002	0.0853	50.1	0.0128	<0.0000019	0.0207	0.0067	
RSEM-L5E-P2-EOP	9/22/2021 14:45	AGR067	M	C171568	3.14	3.18	0.049	<0.0025	0.00067	0.026	<0.0005	<0.005	0.303	<0.00005	102	<0.005	<0.001	<0.0025	0.07	<0.001	0.08	53.4	0.0112	<0.0000019	0.0202	0.0072	
RSEM-L5E-P2-EOP	9/23/2021 13:30	AGT567	M	C171954	3.42	2.71	0.05	<0.0025	<0.0005	0.025	<0.0005	<0.005	0.321	<0.00005	97.2	<0.005	<0.001	<0.0025	0.078	<0.001	0.083	50.2	0.012	<0.0000019	0.0206	0.0068	
RSEM-L5E-P2-EOP	9/24/2021 11:40	AGV852	M	C172263	2.48	2.92	0.067	<0.001	0.00044	0.0254	<0.0002	<0.002	0.272	<0.00002	105	<0.002	<0.0004	0.0013	0.086	<0.0004	0.0794	42.4	0.0156	<0.0000019	0.0202	0.0042	
RSEM-L5E-P2-EOP	9/24/2021 11:50	AGV853	D	C172263	2.66	3.37	0.104	<0.001	0.00047	0.0245	<0.0002	<0.002	0.275	<0.00002	100	<0.002	<0.0004	0.0012	0.125	<0.0004	0.0783	42.0	0.0154	<0.0000019	0.0193	0.0042	
RSEM-L5E-P2-EOP	9/25/2021 11:35	AGX498	M	C172580	2.90	2.97	0.118	0.00056	0.00048	0.0211	<0.0001	<0.001	0.283	<0.00001	97.3	<0.001	0.00028	0.00136	0.24	<0.0002	0.0777	39.4	0.0227	<0.0000019	0.0164	0.0043	
RSEM-L5E-P2-SP	4/5/2021 16:15	ZO7521	M	C121801	3.85	3.37	0.422	<0.0005	0.00045	0.0412	<0.0001	<0.001	<0.05	0.000049	63.6	<0.001	0.00047	0.00344	0.332	0.00021	0.0074	23.5	0.0576	0.0000028	0.0039	0.0031	
RSEM-L5E-P2-SP	4/28/2021 15:50	ZS0317	M	C128230	3.93	2.52	0.0197	<0.0005	0.00037	0.0397	<0.0001	<0.001	<0.05	0.000025	72.8	<0.001	0.00023	0.00292	0.023	<0.0002	0.0074	30.1	0.0122	0.0000025	0.0052	0.0028	
RSEM-L5E-P2-SP	5/4/2021 14:30	ZS9944	M	C129944	4.06	3.65	0.0415	<0.0005	0.00041	0.044	<0.0001	<0.001	<0.05	0.00002	70.4	<0.001	0.00021	0.00259	0.082	<0.0002	0.0103	30.4	0.0073	0.000002	0.0061	0.0025	
RSEM-L5E-P2-SP	5/6/2021 12:40	ZT3105	M	C130484	3.40	4.01	0.0472	<0.0005	0.00039	0.0425	<0.0001	<0.001	<0.05	0.000022	72.8	0.0023	0.00021	0.00255	0.068	<0.0002	0.0102	31.7	0.0059	<0.0000019	0.0086	0.0111	
RSEM-L5E-P2-SP	5/13/2021 14:25	ZU4939	M	C132324	3.85	3.74	0.0243	<0.0005	0.00039	0.0396	<0.0001	<0.001	<0.05	0.000011	68.4	<0.001	<0.0002	0.00238	0.028	<0.0002	0.01	32.4	0.0022	<0.0000019	0.0059	0.0022	
RSEM-L5E-P2-SP	5/20/2021 14:45	ZV5701	M	C134406	3.75	3.63	0.0234	<0.0005	0.00038	0.0403	<0.0001	<0.001	0.056	<0.00001	83.4	<0.001	<0.0002	0.00203	0.035	<0.0002	0.0128	32.6	0.0015	<0.0000019	0.0067	0.0018	
RSEM-L5E-P2-SP	5/29/2021 12:50	ZW9129	M	C136816	3.22	3.17	0.0512	<0.0005	0.00044	0.0421	<0.0001	<0.001	0.06	<0.00001	70.2	<0.001	<0.0002	0.00194	0.052	<0.0002	0.0139	35.9	0.0022	<0.0000019	0.0067	0.0018	
RSEM-L5E-P2-SP	6/5/2021 15:30	ZY0224	M	C138844	3.84	3.83	0.0431	<0.0005	0.00045	0.0429	<0.0001	<0.001	0.064	<0.00001	70.3	<0.001	<0.0002	0.00204	0.074	<0.0002	0.0145	39.7	0.0029	<0.0000019	0.0069	0.0018	
RSEM-L5E-P2-SP	6/10/2021 10:25	ZY8798	M	C140527	3.93	3.62	0.0251	<0.0005	0.0005	0.0481	<0.0001	<0.001	0.076	0.00001	70.7	<0.001	<0.0002	0.00176	0.026	<0.0002	0.0184	35.0	0.0027	<0.0000019	0.0093	0.0017	
RSEM-L5E-P2-SP	6/14/2021 9:45	ZZ2008	M	C141059	3.96	3.86	0.0496	<0.0005	0.00053	0.0508	<0.0001	<0.001	0.099	0.000014	72.9	<0.001	<0.0002	0.00216	0.041	<0.0002	0.0254	37.8	0.0031	<0.0000019	0.0112	0.0017	
RSEM-L5E-P2-SP	6/20/2021 12:00	AAF491	M	C143330	4.59	3.94	0.0671	<0.0005	0.00047	0.0567	<0.0001	<0.001	0.128	<0.00001	77.1	0.0012	<0.0002	0.00184	0.059	<0.0002	0.0297	38.6	0.0044	<0.0000019	0.0126	0.0022	
RSEM-L5E-P2-SP	6/22/2021 10:40	AAL814	M	C144319	4.10	3.76	0.0305	<0.0005	0.00046	0.0462	<0.0001	<0.001	0.125	<0.00001	77.8	0.0012	<0.0002	0.00203	0.061	<0.0002	0.0272	34.1	0.0039	<0.0000019	0.0113	0.0021	
RSEM-L5E-P2-SP	6/23/2021 11:40	AAO116	M	C144722	3.28	4.07	0.0698	<0.0005	0.00053	0.0457	<0.0001	<0.001	0.12	<0.00001	76.1	0.0023	<0.0002	0.00216	0.141	<0.0002	0.0303	36.0	0.0061	<0.0000019	0.0112	0.0034	
RSEM-L5E-P2-SP	6/24/2021 11:10	AAQ174	M	C144970	3.79	3.96	0.0399	<0.0005	0.00045	0.0429	<0.0001	<0.001	0.124	<0.00001	76.0	<0.001	<0.0002	0.00207	0.077	<0.0002	0.0315	34.5	0.0044	<0.0000019	0.0106	0.0018	
RSEM-L5E-P2-SP	6/25/2021 11:20	AAP484	M	C144894	4.26	3.98	0.0451	0.00051	0.00051	0.0428	<0.0001	<0.001	0.131	<0.00001	76.6	<0.001	<0.0002	0.00224	0.081	<0.0002	0.0312	36.7	0.005	<0.0000019	0.011	0.0022	
RSEM-L5E-P2-SP	6/26/2021 13:30	AAU429	M	C145599	4.37	3.91	0.0359	<0.0005	0.00045	0.0431	<0.0001	<0.001	0.123	<0.00001	73.9	<0.001	<0.0002	0.00202	0.068	<0.0002	0.0304	36.2	0.005	0.0000052	0.0112	0.0018	
RSEM-L5E-P2-SP	6/27/2021 10:40	AAU316	M	C145583	4.61	4.49	0.0403	0.00054	0.00049	0.0442	<0.0001	<0.001	0.124	<0.00001	75.6	0.0011	<0.0002	0.00295	0.075	<0.0002	0.0309	37.2	0.0047	0.0000031	0.0118	0.0022	
RSEM-L5E-P2-SP	6/28/2021 10:45	AAX133	M	C146134	4.79	4.47	0.0365	0.00054	0.00047	0.0434	<0.0001	<0.001	0.131	<0.00001	77.1	<0.001	<0.0002	0.00261	0.075	<0.0002	0.0316	37.8	0.0044	0.0000033	0.0117	0.0025	
RSEM-L5E-P2-SP	6/29/2021 11:45	AAZ024	M	C146532	4.85	3.97	0.047	0.00052	0.00065	0.0476	<0.0001	<0.001	0.11	<0.00001	80.0	<0.001	<0.0002	0.00187	0.063	<0.0002	0.0359	43.4	0.0044	<0.0000019	0.0119	0.0021	
RSEM-L5E-P2-SP	7/3/2021 13:55	ABE026	M	C147272	4.34	4.52	0.0381	0.00075	0.00068	0.0452	<0.0001	<0.001	0.171	0.000023	73.2	0.0017	<0.0002	0.00229	0.077	<0.0002	0.0462	40.1	0.0054	0.0000029	0.0181	0.0057	
RSEM-L5E-P2-SP	7/4/2021 10:00	ABD988	M	C147267	5.15	4.10	0.0347	0.00079	0.00079	0.0462	<0.0001	<0.001	0.208	0.000018	74.9	0.0059	<0.0002	0.00248	0.09	<0.0002	0.0529	44.2	0.0047	<0.0000019	0.0186	0.0035	
RSEM-L5E-P2-SP	7/5/2021 11:40	ABG202	M	C147674	3.66	3.25	0.052	0.00078	0.00078	0.0467	<0.0001	<0.001	0.194	0.000034	75.3	<0.001	<0.0002	0.00212	0.094	<0.0002	0.0539	41.5	0.0054	<0.0000019	0.0197	0.0029	
RSEM-L5E-P2-SP	7/6/2021 15:20	ABJ181	M	C148228	3.69	2.91	0.0408	0.00074	0.00074	0.0469	<0.0001	<0.001	0.176	0.000011	71.7	<0.001	<0.0002	0.00197	0.068	<0.0002	0.0459	38.1	0.0044	<0.0000019	0.0194	0.0039	
RSEM-L5E-P2-SP	7/7/2021 15:30	ABK535	M	C148516	3.71	3.30	0.0528	0.00075	0.00078	0.0478	<0.0001	<0.001	0.18	0.000012	72.5	<0.001	<0.0002	0.00203	0.056	<0.0002	0.0467	38.9	0.0041	<0.0000019	0.0198	0.0031	
RSEM-L5E-P2-SP	7/8/2021 17:00	ABM765	M	C148925	5.33	4.93	0.0346	0.00075	0.00063	0.0462	<0.0001	<0.001	0.188	<0.00001	86.6	<0.001	<0.0002	0.00244	0.052	<0.0002	0.0463	38.7	0.0037	<0.0000019	0.0192	0.0021	
RSEM-L5E-P2-SP	7/24/2021 10:35	ACO402	M	C153513	2.58	2.25	0.166	0.00083	0.00073	0.0565	<0.0001	<0.001	0.211	0.000027	89.3	<0.001	0.00022	0.00189	0.245	<0.0002	0.0572	35.5	0.0124	<0.0000019	0.0229	<0.001	
RSEM-L5E-P2-SP	7/25/2021 11:00	ACO185	M	C153467	3.43	2.53	0.0882	0.00076	0.00058	0.0531	<0.0001	<0.001	0.204	<0.00001	86.0	<0.001	0.00021	0.00185	0.171	<0.0002	0.0567	32.9	0.0082	<0.0000019	0.0209	0.0022	
RSEM-L5E-P2-SP	7/26/2021 11:30	ACN522	M	C153324	3.38	2.67	0.0804	0.00075	0.00053	0.0499	<0.0001	<0.001	0.212	<0.00001	88.6	<0.001	<0.0002	0.00172	0.147	<0.0002	0.0598	31.8	0.0059	<0.0000019	0.0198	0.002	
RSEM-L5E-P2-SP	7/27/2021 15:40	ACT048	M	C154246	2.57	2.00	0.0812	0.0009	0.00081	0.0561	<0.0001	<0.001	0.27	0.000024	93.5	<0.001	<0.0002	0.0022	0.121	<0.0002	0.0609	40.2	0.0061	<0.0000019	0.0229	<0.001	
RSEM-L5E-P2-SP	7/28/2021 16:00	ACV592	M	C154699	3.22	2.27	0.108	<0.0025	0.00084	0.0567	<0.0005	<0.005	<0.25	<0.00005	92.7	<0.005	<0.001	<0.0025	0.161	<0.001	0.058	40.5	0.0052	<0.0000019	0.0222	<0.005	
RSEM-L5E-P2-SP	7/30/2021 11:40	ACY656	M	C155288	3.95	3.83	0.088	<0.0025	0.00055	0.0559	<0.0005	<0.005	<0.25	<0.00005	92.5	<0.005	<0.001	<0.0025	0.108	<0.001	0.057	39.7	<0.005	<0.0000019	0.0221	<0.005	
RSEM-L5E-P2-SP	8/1/2021 14:00	ADC694	M	C155924	5.96	4.95	0.081	<0.0025	0.00063	0.0526	<0.0005	<0.005	0.266	<0.00005	91.5	<0.005	<0.001	0.0026	0.072	<0.001	0.063	39.9	<0.005	<0.0000019	0.0222	<0.005	
RSEM-L5E-P2-SP	8/5/2021 15:30	ADK138	M	C157133	3.48	3.17	0.0699	0.00091	0.00065	0.0541	<0.0001	<0.001	0.225	<0.00001	94.8	0.0015	<0.0002	0.00182	0.1	<0.0002	0.0663	42.3	0.0049	<0.0000019	0.0246	0.0023	
RSEM-L5E-P2-SP	8/6/2021 10:40	ADK125	M	C157131	3.47	3.59	0.107	0.00084	0.00067	0.0518	<0.0001	<0.001	0.216	<0.00001	92.3	0.001	<0.0002	0.00192	0.168	<0.0002	0.0634	40.0	0.0071	0.0000026	0.0232	0.0021	
RSEM-L5E-P2-SP	8/7/2021 16:20	ADM460	M	C157545	3.90	3.08	0.0913	0.00083	0.00071	0.0524	<0.0001	<0.001	0.219	0.00002	92.8	0.0015	<0.0002	0.00211	0.167	<0.0002	0.0593	39.3	0.0075	<0.0000019	0.0241	0.0024	
RSEM-L5E-P2-SP	8/8/2021 10:45	ADN230	M	C157651	3.11	3.38	0.117	<0.0025	0.00062	0.0484	<0.0005	<0.005	<0.25	<0.00005	91.1	<0.005	<0.001	<0.0025	0.201	<0.001	0.052	39.9	0.0072	<0.0000019	0.0241	<0.005	
RSEM-L5E-P2-SP	8/9/2021 10:15	ADM370	M	C157523	3.17	3.21	0.078	0.00091	0.00063	0.0524	<0.0001	<0.001	0.236	0.000011	94.1	0.0099	<0.0002	0.00207	0.207	<0.0002	0.0634	40.6	0.0071	0.0000019	0.0255	0.0025	
RSEM-L5E-P2-SP	8/10/2021 15:30	ADP902	M	C158211	3.44	3.17	0.074	<0.0025	0.00059	0.0424	<0.0005	<0.005	<0.25	<0.00005	89.5	<0.005	<0.001	<0.0025	0.12	<0.001	0.054	38.7	0.0059	<0.0000019	0.0228	<0.005	
RSEM-L5E-P2-SP	8/12/2021 15:30	ADU541	M	C159104	1.36	1.44	<0.015	<0.0025	<0.0005	0.0939	<0.0005	<0.005	<0.25	<0.00005	47.0	<0.005	<0.001	<0.0025	<0.05	<0.001	<0.01	9.71	<0.005	<0.0000019	<0.005	<0.005	
RSEM-L5E-P2-SP	8/14/2021 15:30	ADW203	M	C159435	3.94	3.80	0.0679	0.00098	0.00066	0.039	<0.0001	<0.001	0.193	<0.00001	87.3	<0.001	<0.0002	0.00209	0.104	<0.0002	0.0585	41.6	0.0047	<0.0000019	0.0234	0.0018	
RSEM-L5E-P2-SP	8/16/2021 15:20	ADY265	M	C159861	3.44	3.62	0.086	<0.0025	0.00082	0.0377	<0.0005	<0.005	<0.25	<0.00005	92.3	<0.005	<0.001	<0.0025	0.136	<0.001	0.059	44.9	0.005	<0.0000019	0.0242	<0.005	
RSEM-L5E-P2-SP	8/18/2021 15:20	AED519	M	C160793	3.00	3.30	0.0758	0.00108	0.00058	0.0319	<0.0001	<0.001	0.225	<0.00001	81.6	<0.001	<0.0002	0.00197	0.113	<0.0002	0.0539	44.1	0.004	<0.0000019	0.0225	0.0022	
RSEM-L5E-P2-SP	8/20/2021 12:20	AEF525	M	C161059	4.03	4.37	0.0782	0.00105	0.00063	0.0295	<0.0001	<0.001	0.22	<0.00001	81.6	<0.001	<0.0002	0.00211	0.123	<0.0002	0.0542	44.1	0.0043	<0.0000019	0.023	0.0019	
RSEM-L5E-P2-SP	8/21/2021 16:20	AEI351	M	C161420	4.59	2.64	0.0962	0.00095	0.00056	0.024	<0.0001	<0.001	0.281	<0.00001	72.5	<0.001	<0.0002	0.00242	0.117	<0.0002	0.0548	38.8	0.0046	<0.0000019	0.0206	0.0017	
RSEM-L5E-P2-SP	8/22/2021 9:40	AEI413	M	C161433	3.91	3.04	0.122	0.00094	0.0008	0.0266	<0.0001	<0.001	0.227	0.000034	79.3	<0.001	0.00088	0.00203	0.26	<0.0002	0.0567	42.9	0.0764	<0.0000019	0.0209	0.0045	
RSEM-L5E-P2-SP	8/27/2021 12:10	AER549	M	C163144	3.79	3.13	0.072	<0.0025	0.00116	0.0318	<0.0005	<0.005	0.258	0.000087	119	<0.005	0.0034	<0.0025	0.085	<0.001	0.059	50.8	0.294	<0.0000019	0.0172	0.0172	
RSEM-L5E-P2-SP	8/28/2021 14:55	AEV125	M	C163811	3.69	3.40	0.0571	0.00061	0.00047	0.0304	<0.0001	<0.001	0.191	0.00015	119	<0.001	0.00347	0.00177	0.084	<0.0002	0.0526	44.2	0.275	<0.0000019	0.0149	0.0156	
RSEM-L5E-P2-SP	8/29/2021 14:50	AEV013	M	C163786	3.59	3.35	0.065	<0.0025	0.00088	0.0349	<0.0005	<0.005	<0.25	0.000092	114	<0.005	0.0034	<0.0025	0.063	<0.001	0.062	48.8	0.296	<0.0000019	0.0164	0.0172	
RSEM-L5E-P2-SP	8/30/2021 14:20	AEX830	M	C164176	3.76	2.28	0.0444	0.00061	0.00044	0.0326	<0.0001	<0.001	0.217	0.000124	114	<0.001	0.00273	0.0017	0.045	<0.0002	0.0578	42.2	0.215	<0.0000019	0.0151	0.0133	
RSEM-L5E-P2-SP	8/31/2021 12:20	AFA834	M	C164798	2.79	3.14	0.0434	0.00061	0.00043	0.0333	<0.0001	<0.001	0.223	0.000124	114	<0.001	0.00256	0.00148	0.042	<0.0002	0.059	42.4	0.199	<0.0000019	0.0156	0.013	
RSEM-L5E-P2-SP	9/1/2021 11:40	AFC993	M	C165103	3.17	3.09	0.0463	0.00061	0.00043	0.0339	<0.0001	<0.001	0.221	0.000086	116	<0.001	0.00255	0.00155	0.04	<0.0002	0.058	41.6	0.191	<0.0000019	0.0168	0.0132	
RSEM-L5E-P2-SP	9/2/2021 16:10	AFF609	M	C165563	2.82	2.23	0.041	0.00058	0.00042	0.0328	<0.0001	<0.001	0.221	0.000095	117	<0.001	0.00258	0.00157	0.051	<0.0002	0.0574	40.6	0.189	<0.0000019	0.0155	0.0134	
RSEM-L5E-P2-SP	9/3/2021 12:10	AFF867	M	C165588	3.29	3.14	0.0595	0.00055	0.00032	0.0318	<0.0001	<0.001	0.22	0.000074	107	0.0011	0.00244	0.00152	0.049	<0.0002	0.06	42.5	0.175	<0.0000019	0.0147	0.0129	
RSEM-L5E-P2-SP	9/4/2021 12:05	AFH291	M	C165785	4.55	3.07	0.046	0.00066	0.00051	0.0393	<0.0001	<0.001	0.194	0.000099	123	<0.001	0.00271	0.00154	0.033	<0.0002	0.0578	46.2	0.195	<0.0000019	0.0185	0.0144	
RSEM-L5E-P2-SP	9/21/2021 10:10	AGO666	M	C171134	3.39	3.15	0.041	<0.0025	0.00053	0.0266	<0.0005	<0.005	0.346	<0.00005	105	<0.005	<0.001	<0.0025	0.052	<0.001	0.083	56.0	0.0128	<0.0000019	0.021	0.0086	
RSEM-L5W-P2-EOP	8/25/2021 11:25	AEP244	M	C162703	2.93	3.42	0.0426	0.0009	0.00072	0.0426	<0.0001	<0.001	0.274	<0.00001	77.9	<0.001	0.00025	0.00138	0.08	<0.0002	0.0827	34.4	0.0058	<0.0000019	0.0251	0.0043	
RSEM-L5W-P2-EOP	8/26/2021 15:20	AER558	M	C163145	3.21	2.44	0.0502	0.0009	0.00067	0.0417	<0.0001	<0.001	0.276	<0.00001	77.9	<0.001	0.00023	0.0014	0.077	<0.0002	0.0833	35.7	0.0052	<0.0000019	0.0243	0.0043	
RSEM-L5W-P2-EOP	8/27/2021 12:25	AER550	M	C163144	3.31	2.99	0.0402	0.0009	0.00068	0.0425	<0.0001	<0.001	0.289	<0.00001	80.2	<0.001	0.00023	0.00137	0.07	<0.0002	0.0876	35.0	0.0048	<0.0000019	0.0258	0.0044	
RSEM-L5W-P2-EOP	8/28/2021 15:10	AEV126	M	C163811	2.88	3.03	0.0513	0.00078	0.00057	0.0384	<0.0001	<0.001	0.338	0.00002	81.7	<0.001	0.00026	0.00136	0.099	<0.0002	0.0845	34.6	0.0067	<0.0000019	0.0228	0.0044	
RSEM-L5W-P2-EOP	8/29/2021 15:05	AEV014	M	C163786	3.12	2.81	0.0893	0.00088	0.00076	0.042	<0.0001	<0.001	0.283	<0.00001	79.5	<0.001	0.0004	0.00165	0.198	<0.0002	0.0896	36.3	0.0113	<0.0000019	0.0239	0.0057	
RSEM-L5W-P2-EOP	8/30/2021 14:40	AEX831	M	C164176	2.56	2.22	0.036	0.00082	0.00056	0.0384	<0.0001	<0.001	0.346	0.000173	83.3	<0.001	0.00031	0.00141	0.067	<0.0002	0.087	36.3	0.0105	<0.0000019	0.0226	0.005	
RSEM-L5W-P2-EOP	8/31/2021 12:35	AFA835	M	C164798	1.83	1.85	0.0302	0.00079	0.00054	0.0367	<0.0001	<0.001	0.348	0.000015	83.4	<0.001	0.00031	0.00128	0.046	<0.0002	0.0881	36.8	0.011	<0.0000019	0.0223	0.0049	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5W-P2-EOP	9/1/2021 11:50	AFC994	M	C165103	3.03	3.04	0.0364	0.00074	0.00053	0.0351	<0.0001	<0.001	0.367	<0.00001	85.2	<0.001	0.00032	0.00137	0.068	<0.0002	0.0811	35.2	0.0121	<0.0000019	0.0226	0.005	
RSEM-L5W-P2-EOP	9/2/2021 16:20	AFF610	M	C165563	2.63	1.87	0.0427	0.00074	0.00055	0.0348	<0.0001	<0.001	0.363	<0.00001	87.1	<0.001	0.00035	0.0014	0.096	<0.0002	0.0849	34.8	0.0128	<0.0000019	0.022	0.0051	
RSEM-L5W-P2-EOP	9/3/2021 12:25	AFF868	M	C165588	2.72	2.87	0.0437	0.00069	0.0005	0.033	<0.0001	<0.001	<0.05	<0.00001	81.4	<0.001	0.00032	0.0013	0.038	<0.0002	0.0804	35.7	0.0105	<0.0000019	0.0235	0.0056	
RSEM-L5W-P2-EOP	9/4/2021 12:25	AFH292	M	C165785	3.10	2.81	0.0479	<0.001	0.00059	0.0375	<0.0002	<0.002	0.287	<0.00002	84.3	<0.002	<0.0004	0.0013	0.039	<0.0004	0.0783	37.2	0.0131	<0.0000019	0.0236	0.0058	
RSEM-L5W-P2-EOP	9/5/2021 11:15	AFI823	M	C166081	3.16	3.19	0.0627	0.00068	0.00054	0.0333	<0.0001	<0.001	<0.05	<0.00001	82.8	<0.001	0.00036	0.00138	0.101	<0.0002	0.0795	35.1	0.0111	<0.0000019	0.0231	0.0059	
RSEM-L5W-P2-EOP	9/6/2021 10:20	AFI722	M	C166063	3.09	2.92	0.056	<0.0025	0.00055	0.0376	<0.0005	<0.005	0.304	<0.00005	86.8	<0.005	<0.001	<0.0025	0.055	<0.001	0.09	39.3	0.0127	0.0000692	0.0234	0.0061	
RSEM-L5W-P2-SP	4/28/2021 16:00	ZS0318	M	C128230	2.53	2.45	0.0808	0.00082	0.00088	0.0689	<0.0001	<0.001	0.088	0.000022	87.1	0.0011	0.00056	0.0021	0.105	<0.0002	0.0268	23.3	0.006	0.0000035	0.0193	0.0037	
RSEM-L5W-P2-SP	5/20/2021 14:55	ZV5702	M	C134406	2.12	2.21	0.201	0.00099	0.00115	0.0423	<0.0001	<0.001	0.206	<0.00001	71.7	0.0013	0.00072	0.00168	0.14	<0.0002	0.0718	21.4	0.0068	0.0000026	0.0288	0.0057	
RSEM-L5W-P2-SP	5/29/2021 13:00	ZW9130	M	C136816	2.41	2.41	0.298	<0.001	0.0011	0.0451	<0.0002	<0.002	0.196	<0.00002	73.5	<0.002	0.00048	0.0017	0.178	<0.0004	0.0662	24.9	0.0077	<0.0000019	0.0256	0.0049	
RSEM-L5W-P2-SP	6/5/2021 15:40	ZY0225	M	C138844	3.09	2.55	0.373	0.0011	0.00125	0.0446	<0.0002	<0.002	0.243	<0.00002	68.1	<0.002	0.00052	0.002	0.197	<0.0004	0.0772	26.1	0.008	<0.0000019	0.0308	0.0059	
RSEM-L5W-P2-SP	6/10/2021 10:40	ZY8801	M	C140527	2.03	2.49	0.213	0.0011	0.00138	0.0384	<0.0002	<0.002	0.243	0.000035	67.3	<0.002	0.00052	0.0017	0.141	<0.0004	0.0772	22.0	0.0066	<0.0000019	0.0324	0.0052	
RSEM-L5W-P2-SP	6/14/2021 10:00	ZZ2011	M	C141059	2.88	2.85	0.298	0.0011	0.00129	0.0374	<0.0002	<0.002	0.276	<0.00002	69.3	<0.002	0.00042	0.0021	0.143	<0.0004	0.0871	24.2	0.0055	<0.0000019	0.033	0.0056	
RSEM-L5W-P2-SP	6/20/2021 12:20	AAF492	M	C143330	2.13	2.20	0.136	0.0011	0.00113	0.0385	<0.0001	<0.001	0.331	<0.00001	72.1	0.0012	0.00042	0.00147	0.099	<0.0002	0.0891	24.8	0.0078	<0.0000019	0.0334	0.0057	
RSEM-L5W-P2-SP	6/23/2021 11:55	AAO117	M	C144722	2.75	2.68	0.215	0.00113	0.00116	0.0418	<0.0001	<0.001	0.3	<0.00001	68.3	0.0014	0.00047	0.00182	0.354	<0.0002	0.0895	22.6	0.0102	0.0000024	0.028	0.0057	
RSEM-L5W-P2-SP	6/25/2021 11:35	AAP485	M	C144894	3.59	3.18	0.12	0.00116	0.00111	0.0412	<0.0001	<0.001	0.294	<0.00001	68.3	0.0036	0.00046	0.00187	0.226	<0.0002	0.0905	22.7	0.009	<0.0000019	0.0278	0.0077	
RSEM-L5W-P2-SP	6/26/2021 13:40	AAU430	M	C145599	2.48	2.53	0.106	0.00114	0.00096	0.0436	<0.0001	<0.001	0.295	<0.00001	68.5	<0.001	0.00034	0.00148	0.119	<0.0002	0.0822	23.2	0.0058	0.0000029	0.0283	0.0048	
RSEM-L5W-P2-SP	6/28/2021 10:55	AAX134	M	C146134	2.46	2.44	0.0618	0.00113	0.00092	0.0436	<0.0001	<0.001	0.272	<0.00001	65.7	0.0011	0.00028	0.00183	0.1	<0.0002	0.0754	23.3	0.0042	0.0000045	0.0268	0.0046	
RSEM-L5W-P2-SP	6/29/2021 11:55	AAZ025	M	C146532	3.02	2.40	0.0636	0.00113	0.00112	0.0466	<0.0001	<0.001	0.236	0.000015	67.9	<0.001	0.00024	0.0012	0.063	<0.0002	0.0888	24.3	0.0041	<0.0000019	0.029	0.004	
RSEM-L5W-P2-SP	6/30/2021 0:50	AAZ006	M	C146528	3.23	2.85	0.0545	0.00084	0.00086	0.0563	<0.0001	<0.001	0.166	0.000019	76.8	<0.001	<0.0002	0.0013	0.068	<0.0002	0.0599	33.9	0.0031	0.000002	0.0204	0.0028	
RSEM-L5W-P2-SP	7/1/2021 12:30	ABB248	M	C146903	3.12	2.63	0.0694	0.00094	0.00085	0.0586	<0.0001	<0.001	0.224	0.000025	71.9	<0.001	0.00023	0.00176	0.127	<0.0002	0.0635	32.4	0.0072	<0.0000019	0.0235	0.0034	
RSEM-L5W-P2-SP	7/3/2021 14:05	ABE027	M	C147272	2.73	2.80	0.0798	0.00108	0.00092	0.0549	<0.0001	<0.001	0.229	0.000013	68.9	<0.001	0.00036	0.00184	0.132	<0.0002	0.0687	30.7	0.0082	0.000002	0.0274	0.0052	
RSEM-L5W-P2-SP	7/4/2021 10:15	ABD989	M	C147267	2.01	2.90	0.0715	0.0012	0.00121	0.0553	<0.0001	<0.001	0.309	0.000032	71.3	0.0019	0.0005	0.00232	0.111	<0.0002	0.0902	32.2	0.0116	<0.0000019	0.0299	0.0061	
RSEM-L5W-P2-SP	7/5/2021 11:55	ABG203	M	C147674	2.21	2.23	0.145	0.00132	0.00134	0.0565	<0.0001	<0.001	0.32	0.000033	69.6	0.0011	0.00061	0.00186	0.194	<0.0002	0.103	27.8	0.0138	<0.0000019	0.0331	0.0068	
RSEM-L5W-P2-SP	7/6/2021 15:00	ABJ182	M	C148228	2.15	2.15	0.142	0.00116	0.00112	0.0536	<0.0001	<0.001	0.269	0.00002	63.3	0.0013	0.00039	0.00133	0.123	<0.0002	0.0771	25.2	0.0086	<0.0000019	0.0304	0.0049	
RSEM-L5W-P2-SP	7/7/2021 16:00	ABK536	M	C148516	2.38	2.28	0.0682	0.00122	0.00094	0.0538	<0.0001	<0.001	0.274	0.000015	64.1	0.0015	0.00035	0.00143	0.114	<0.0002	0.0769	26.3	0.0073	<0.0000019	0.0302	0.0054	
RSEM-L5W-P2-SP	7/8/2021 17:20	ABM766	M	C148925	2.91	2.73	0.0543	0.00113	0.0008	0.0585	<0.0001	<0.001	0.255	0.000021	68.5	<0.001	0.00029	0.00146	0.074	<0.0002	0.0683	29.0	0.005	<0.0000019	0.0278	0.0044	
RSEM-L5W-P2-SP	7/9/2021 12:00	ABM749	M	C148923	3.46	2.66	0.0641	0.00094	0.00073	0.0639	<0.0001	<0.001	0.251	0.00002	77.0	<0.001	0.00028	0.00194	0.084	<0.0002	0.0612	40.9	0.0067	<0.0000019	0.0243	0.0024	
RSEM-L5W-P2-SP	7/10/2021 14:30	ABP530	M	C149429	1.86	2.57	0.0602	0.00101	0.00082	0.0529	<0.0001	<0.001	0.29	<0.00001	66.4	0.001	0.00028	0.00143	0.061	<0.0002	0.08	31.0	0.0057	0.0000024	0.0271	0.0039	
RSEM-L5W-P2-SP	7/11/2021 12:30	ABP676	M	C149459	3.38	3.06	0.0738	0.00098	0.00036	0.0547	<0.0001	<0.001	0.273	<0.00001	66.7	<0.001	0.00025	0.00157	0.067	<0.0002	0.0717	32.9	0.0047	<0.0000019	0.0243	0.0036	
RSEM-L5W-P2-SP	7/13/2021 11:10	ABU093	M	C150243	2.22	2.66	0.182	0.00108	0.001	0.055	<0.0001	<0.001	0.216	0.000043	69.6	0.0011	0.00031	0.00147	0.198	<0.0002	0.0689	30.5	0.0077	<0.0000019	0.0285	0.0048	
RSEM-L5W-P2-SP	7/15/2021 12:40	ABY390	M	C150960	2.36	2.64	0.12	0.00104	0.00084	0.0522	<0.0001	<0.001	0.179	0.000035	69.4	0.0013	0.00022	0.00142	0.089	<0.0002	0.0649	28.8	0.0055	<0.0000019	0.0279	0.0038	
RSEM-L5W-P2-SP	7/17/2021 12:35	ACC245	M	C151542	4.15	2.57	0.0515	0.0008	0.00057	0.0481	<0.0001	<0.001	0.251	<0.00001	71.4	<0.001	<0.0002	0.00151	0.055	<0.0002	0.0615	36.5	0.0058	<0.0000019	0.0229	0.0026	
RSEM-L5W-P2-SP	7/19/2021 12:05	ACF041	M	C151946	2.48	2.87	0.0502	0.00095	0.00064	0.0484	<0.0001	<0.001	0.164	0.000044	68.6	<0.001	<0.0002	0.00136	0.077	<0.0002	0.0588	29.9	0.0057	<0.0000019	0.026	0.0032	
RSEM-L5W-P2-SP	7/21/2021 11:30	ACH931	M	C152481	3.29	<0.50	0.0617	0.00079	0.00063	0.0456	<0.0001	<0.001	0.281	<0.00001	73.2	<0.001	<0.0002	0.00136	0.11	<0.0002	0.0768	31.5	0.006	<0.0000019	0.0226	0.0031	
RSEM-L5W-P2-SP	7/23/2021 12:40	ACL704	M	C153012	2.40	2.77	0.0584	0.00078	0.00056	0.0516	<0.0001	<0.001	0.255	0.000011	84.1	0.0014	<0.0002	0.0014	0.107	<0.0002	0.0684	32.9	0.0052	<0.0000019	0.0202	0.0028	
RSEM-L5W-P2-SP	7/24/2021 10:45	ACO403	M	C153513	3.03	1.64	0.0793	0.00092	0.00082	0.0531	<0.0001	<0.001	0.293	0.000032	80.5	<0.001	0.00024	0.00185	0.139	<0.0002	0.0714	39.5	0.0084	<0.0000019	0.0237	<0.001	
RSEM-L5W-P2-SP	7/25/2021 11:10	ACO186	M	C153467	1.72	1.56	0.0526	0.00074	0.00053	0.0526	<0.0001	<0.001	0.233	<0.00001	79.2	<0.001	<0.0002	0.00144	0.087	<0.0002	0.0654	31.8	0.0051	<0.0000019	0.0216	0.0027	
RSEM-L5W-P2-SP	7/26/2021 11:45	ACN523	M	C153324	3.33	1.64	0.103	0.00095	0.00071	0.061	<0.0001	<0.001	0.255	0.000045	97.8	0.0011	0.0002	0.00154	0.089	<0.0002	0.0795	38.7	0.0052	<0.0000019	0.0271	0.0033	
RSEM-L5W-P2-SP	7/27/2021 16:00	ACT049	M	C154246	1.98	1.64	0.0646	0.00099	0.00066	0.0627	<0.0001	<0.001	0.321	0.000026	92.1	<0.001	0.00022	0.00193	0.062	<0.0002	0.0814	44.7	0.006	<0.0000019	0.0275	<0.001	
RSEM-L5W-P2-SP	7/28/2021 16:20	ACV593	M	C154699	2.77	1.74	0.071	<0.0025	0.00061	0.0542	<0.0005	<0.005	0.254	<0.00005	80.9	<0.005	<0.001	<0.0025	0.082	<0.001	0.07	37.7	0.008	<0.0000019	0.0238	0.0181	
RSEM-L5W-P2-SP	7/30/2021 12:00	ACY657	M	C155288	3.08	2.99	0.068	<0.0025	0.00069	0.0526	<0.0005	<0.005	0.275	<0.00005	77.1	<0.005	<0.001	<0.0025	0.055	<0.001	0.07	35.4	0.0058	<0.0000019	0.0233	0.0145	
RSEM-L5W-P2-SP	8/1/2021 14:30	ADC695	M	C155924	4.62	3.27	0.07	<0.0025	0.00076	0.0526	<0.0005	<0.005	0.316	<0.00005	80.4	<0.005	<0.001	<0.0025	<0.05	<0.001	0.081	37.0	<0.005	<0.0000019	0.0247	<0.005	
RSEM-L5W-P2-SP	8/5/2021 15:50	ADK139	M	C157133	3.42	2.83	0.0528	0.00087	0.00077	0.0515	<0.0001	<0.001	0.29	<0.00001	79.2	<0.001	0.00025	0.00151	0.062	<0.0002	0.0877	36.6	0.0043	<0.0000019	0.0267	0.0048	
RSEM-L5W-P2-SP	8/6/2021 10:50	ADK126	M	C157131	2.90	3.13	0.0748	0.0009	0.00069	0.0527	<0.0001	<0.001	0.278	<0.00001	79.7	0.001	0.00026	0.00157	0.119	<0.0002	0.0873	36.3	0.0057	0.0000022	0.0269	0.0047	
RSEM-L5W-P2-SP	8/7/2021 16:40	ADM461	M	C157545	3.17	3.05	0.0655	0.00093	0.00069	0.0523	<0.0001	<0.001	0.274	0.000015	80.0	0.0028	0.00027	0.0017	0.108	<0.0002	0.086	34.9	0.0055	<0.0000019	0.0278	0.0052	
RSEM-L5W-P2-SP	8/8/2021 10:55	ADN231	M	C157651	2.99	2.85	0.052	<0.0025	0.00065	0.0455	<0.0005	<0.005	0.288	<0.00005	74.7	<0.005	<0.001	<0.0025	0.079	<0.001	0.074	34.4	<0.005	0.0000023	0.0241	<0.005	
RSEM-L5W-P2-SP	8/9/2021 10:30	ADM371	M	C157523	3.03	2.92	0.0665	0.00093	0.00066	0.0509	<0.0001	<0.001	0.28	0.000013	78.6	0.0034	0.00026	0.0017	0.11	<0.0002	0.0795	34.0	0.0051	<0.0000019	0.0273	0.0051	
RSEM-L5W-P2-SP	8/10/2021 15:50	ADP903	M	C158211	3.41	3.36	0.044	<0.0025	0.00062	0.0452	<0.0005	<0.005	0.301	<0.00005	75.5	<0.005	<0.001	<0.0025	0.078	<0.001	0.073	34.9	<0.005	<0.0000019	0.0253	<0.005	
RSEM-L5W-P2-SP	8/12/2021 15:50	ADU542	M	C159104	3.18	3.09	0.039	<0.0025	0.00064	0.0433	<0.0005	<0.005	0.296	<0.00005	73.7	<0.005	<0.001	<0.0025	0.069	<0.001	0.076	33.9	<0.005	<0.0000019	0.0251	<0.005	
RSEM-L5W-P2-SP	8/14/2021 15:50	ADW204	M	C159435	3.40	3.01	0.0401	0.00108	0.00069	0.0474	<0.0001	<0.001	0.286	<0.00001	79.8	<0.001	0.00025	0.00182	0.054	<0.0002	0.0902	38.9	0.0041	<0.0000019	0.0288	0.0051	
RSEM-L5W-P2-SP	8/16/2021 15:50	ADY266	M	C159861	4.42	3.14	0.052	<0.0025	0.00081	0.0473	<0.0005	<0.005	0.321	<0.00005	80.5	<0.005	<0.001	<0.0025	0.06	<0.001	0.089	38.6	<0.005	<0.0000019	0.0285	0.0054	
RSEM-L5W-P2-SP	8/18/2021 15:40	AED520	M	C160793	2.83	3.75	0.0439	0.00117	0.00073	0.0452	<0.0001	<0.001	0.324	<0.00001	76.2	<0.001	0.00023	0.00169	0.057	<0.0002	0.0832	39.2	0.0034	<0.0000019	0.0282	0.0051	
RSEM-L5W-P2-SP	8/20/2021 12:40	AEF526	M	C161059	3.20	3.33	0.0448	0.0011	0.00068	0.0439	<0.0001	<0.001	0.315	<0.00001	73.9	<0.001	0.00022	0.00164	0.05	<0.0002	0.0825	38.0	0.0036	<0.0000019	0.0274	0.0054	
RSEM-L5W-P2-SP	8/21/2021 16:40	AEI352	M	C161420	3.47	2.34	0.0613	0.00123	0.00074	0.0414	<0.0001	<0.001	0.32	<0.00001	72.6	<0.001	0.00023	0.0017	0.054	<0.0002	0.0874	35.0	0.0035	<0.0000019	0.0275	0.0052	
RSEM-L5W-P2-SP	8/22/2021 10:00	AEI414	M	C161433	3.27	2.57	0.0583	0.001	0.00065	0.0439	<0.0001	<0.001	0.337	<0.00001	94.0	<0.001	0.00025	0.00168	0.161	<0.0002	0.0868	38.4	0.0063	<0.0000019	0.0268	0.0047	
RSEM-L5W-P2-SP	8/23/2021 13:30	AEL594	M	C161925	3.29	2.93	0.0643	0.00103	0.00072	0.0431	<0.0001	<0.001	0.307	<0.00001	77.6	<0.001	0.00027	0.00156	0.098	<0.0002	0.0803	38.7	0.0081	<0.0000019	0.025	0.0048	
RSEM-L5W-P2-SP	8/24/2021 13:45	AEN134	M	C162291	3.38	2.58	0.0661	0.00103	0.00061	0.0452	<0.0001	<0.001	0.332	<0.00001	80.6	<0.001	0.0003	0.0016	0.151	<0.0002	0.0863	37.9	0.0107	<0.0000019	0.0264	0.0048	
RSEM-L5W-P2-SP	9/7/2021 16:00	AFL348	M	C166557	3.42	3.31	0.043	<0.0025	0.00062	0.0364	<0.0005	<0.005	0.337	<0.00005	86.7	<0.005	<0.001	<0.0025	<0.05	<0.001	0.088	40.0	0.0098	0.0000479	0.0238	0.0062	
RSEM-L5W-P2-SP	9/8/2021 16:00	AFO060	M	C167059	3.04	3.11	0.029	<0.0025	0.00074	0.036	<0.0005	<0.005	0.336	<0.00005	89.3	<0.005	<0.001	<0.0025	<0.05	<0.001	0.09	43.7	0.0092	<0.0000019	0.0247	0.0068	
RSEM-L5W-P2-SP	9/9/2021 15:50	AFQ848	M	C167445	3.09	3.21	0.0427	0.00079	0.00072	0.0357	<0.0001	<0.001	0.344	<0.00001	86.6	<0.001	0.00034	0.00148	0.064	<0.0002	0.0917	41.0	0.0097	<0.0000019	0.0231	0.0065	
RSEM-L5W-P2-SP	9/10/2021 12:00	AFQ884	M	C167449	3.75	3.09	0.026	<0.0025	0.00058	0.0359	<0.0005	<0.005	0.363	<0.00005	90.5	<0.005	<0.001	<0.0025	<0.05	<0.001	0.092	43.8	0.0077	<0.0000019	0.025	0.0067	
RSEM-L5W-P2-SP	9/11/2021 15:30	AFV356	M	C168029	2.92	3.12	0.046	<0.0025	0.00051	0.0353	<0.0005	<0.005	0.306	<0.00005	90.3	<0.005	<0.001	<0.0025	<0.05	<0.001	0.092	43.2	0.0092	<0.0000019	0.0238	0.0069	
RSEM-L5W-P2-SP	9/15/2021 15:10	AGD168	M	C169361	3.18	3.35	0.059	<0.0025	<0.0005	0.0364	<0.0005	<0.005	0.366	<0.00005	96.7	<0.005	<0.001	<0.0025	0.101	<0.001	0.091	44.3	0.0108	0.0000021	0.0233	0.0072	
RSEM-L6-EOP	4/30/2021 7:00	ZS2246	M	C128573	1.70	1.62	1.66	<0.0005	0.00142	0.107	<0.0001	<0.001	0.059	0.000152	65.2	0.0042	0.00206	0.0038	2.53	0.00118	0.0134	20.7	0.0918	0.0000077	0.0072	0.0116	
RSEM-L6-SP	4/14/2021 13:00	ZP9472	M	C124397	1.88	1.92	0.0582	<0.0005	0.00031	0.0558	<0.0001	<0.001	<0.05	0.000078	55.5	<0.001	0.00044	0.00105	0.126	<0.0002	0.0092	13.2	0.0831	<0.0000019	0.0053	0.0025	
RSEM-L6-SP	4/29/2021 16:00	ZS2245	M	C128573	2.49	<0.50	0.723	<0.0005	0.00084	0.182	<0.0001	<0.001	<0.05	0.000068	72.9	0.0037	0.00101	0.00203	1.09	0.00055	0.0075	17.5	0.0599	0.0000038	0.0062	0.0138	
RSEM-L6-SP	8/25/2021 17:10	AEP248	M	C162703	3.55	4.02	0.0526	<0.0005	0.00054	0.0918	<0.0001	<0.001	0.093	0.000031	109	<0.001	0.00021	0.00155	0.099	<0.0002	0.022	31.5	0.0183	<0.0000019	0.0086	0.0017	
RSEM-L6-SP	8/26/2021 17:00	AER560	M	C163145	3.74	3.03	0.0399	<0.0005	0.00046	0.0892	<0.0001	<0.001	0.126	0.000038	110	<0.001	<0.0002	0.00158	0.061	<0.0002	0.0248	34.7	0.0143	0.0000021	0.0093	0.0017	
RSEM-L6-SP	8/27/2021 9:45	AER551	M	C163144	3.39	3.38	0.027	<0.0005	0.00049	0.0907	<0.0001	<0.001	0.067	0.000027	110	<0.001	<0.0002	0.00152	0.035	<0.0002	0.0227	32.2	0.0146	<0.0000019	0.009	0.0016	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	10/27/2021 15:50	AJH727	M	C182990	4.53	4.42	0.0188	<0.0005	0.00043	0.0517	<0.0001	<0.001	0.102	0.00002	112	<0.001	<0.0002	0.00233	0.044	<0.0002	0.024	37.9	0.0043	<0.0000019	0.0081	0.0019	
RSEM-L6-SP	11/9/2021 12:30	AKJ864	M	C187047	4.82	5.25	0.0691	<0.0005	0.0005	0.0629	<0.0001	<0.001	0.111	0.00002	134	<0.001	<0.0002	0.00158	0.18	<0.0002	0.0275	39.9	0.0087	<0.0000019	0.0092	0.0022	
RSEM-R5A-P2-A-SP	5/5/2021 14:40	ZT3124	M	C130491	1.57	1.15	0.069	0.00081	0.00043	0.0963	<0.0001	<0.001	0.057	0.000015	54.3	0.0016	<0.0002	0.00062	0.083	<0.0002	0.0077	13.3	0.007	0.0000024	0.0197	0.0018	
RSEM-R5A-P2-B-SP	5/5/2021 15:00	ZT3125	M	C130491	1.55	1.29	0.525	0.00132	0.00066	0.1	<0.0001	<0.001	0.062	0.000019	44.8	0.003	0.00026	0.00122	0.352	0.00023	0.0099	10.7	0.0067	0.0000025	0.0237	0.0022	
RSEM-R5A-P2-C-SP	5/14/2021 11:50	ZU4953	M	C132327	1.76	1.59	1.81	0.00131	0.00115	0.164	<0.0001	<0.001	0.071	0.000051	45.1	0.0043	0.00079	0.00256	1.33	0.00081	0.0123	11.2	0.021	0.0000042	0.0248	0.0034	
RSEM-R5A-P2-C-SP	5/19/2021 15:15	ZV3577	M	C134016	1.66	2.21	0.253	0.00134	0.00084	0.129	<0.0001	<0.001	0.073	0.000035	47.8	0.0022	0.00039	0.00141	0.412	0.00031	0.011	10.9	0.0118	0.0000035	0.0247	0.0019	
RSEM-R5A-P2-D-SP	5/14/2021 12:05	ZU4954	M	C132327	2.30	1.13	0.136	0.00116	0.00055	0.0906	<0.0001	<0.001	0.061	0.000014	46.1	0.0021	<0.0002	0.00102	0.148	<0.0002	0.0093	10.7	0.0035	<0.0000019	0.0229	0.001	
RSEM-R5A-P2-D-SP	5/19/2021 15:25	ZV3578	M	C134016	1.97	1.59	0.136	0.00126	0.00068	0.0963	<0.0001	<0.001	0.069	0.000017	46.6	0.0021	0.00022	0.00107	0.229	<0.0002	0.0099	11.4	0.0076	0.0000044	0.0244	0.0012	
RSEM-R5A-P2-D-SP	8/26/2021 13:30	AER556	M	C163145	4.14	2.60	0.147	0.00058	0.00067	0.0688	<0.0001	<0.001	0.155	0.000084	121	0.0011	0.00212	0.00173	0.191	0.00023	0.0446	28.0	0.062	0.000002	0.0131	0.0108	
RSEM-R5B-P2-Sump	5/2/2021 15:05	ZS6050	M	C129102	1.75	1.76	0.0634	0.00183	0.00056	0.0758	<0.0001	<0.001	0.058	<0.00001	71.6	<0.001	0.00044	0.00077	0.116	<0.0002	0.026	33.3	0.005	<0.0000019	0.0049	0.008	
RSEM-R5B-P2-Sump	5/12/2021 12:30	ZU2126	M	C131927	1.99	2.21	0.0729	0.0016	0.00048	0.0673	<0.0001	<0.001	0.058	<0.00001	65.7	<0.001	0.00026	0.00056	0.1	<0.0002	0.0255	33.2	0.0042	<0.0000019	0.0042	0.0055	
RSEM-R5B-P2-Sump	5/18/2021 12:30	ZV2800	M	C133850	2.46	2.29	0.0479	0.00161	0.00051	0.0689	<0.0001	<0.001	0.064	<0.00001	65.9	<0.001	0.00022	0.0006	0.091	<0.0002	0.0265	35.6	0.004	<0.0000019	0.0044	0.0052	
RSEM-R5B-P2-Sump	6/2/2021 14:30	ZX5272	M	C138096	3.99	3.58	0.107	0.00139	0.00061	0.081	<0.0001	<0.001	0.079	<0.00001	62.6	<0.001	0.00026	0.00109	0.135	<0.0002	0.0304	36.9	0.0086	<0.0000019	0.0044	0.0046	
RSEM-R5B-P2-Sump	6/10/2021 13:30	ZY8802	M	C140527	2.84	3.49	0.252	0.00167	0.00092	0.0999	<0.0001	<0.001	0.091	0.000015	63.7	<0.001	0.00038	0.0016	0.371	0.00023	0.0347	41.1	0.0219	<0.0000019	0.0053	0.0056	
RSEM-R5B-P2-Sump	6/23/2021 13:15	AAO118	M	C144722	2.68	2.46	0.111	0.00121	0.00058	0.085	<0.0001	<0.001	0.116	<0.00001	64.6	<0.001	0.00026	0.00135	0.204	<0.0002	0.0502	41.7	0.0157	<0.0000019	0.0051	0.0047	
RSEM-R5B-P2-Sump	7/11/2021 13:30	ABP677	M	C149459	1.97	2.28	0.0381	0.0007	0.00058	0.0916	<0.0001	<0.001	0.088	<0.00001	61.5	<0.001	<0.0002	0.00167	0.099	<0.0002	0.0405	50.2	0.0165	<0.0000019	0.0065	0.0016	
RSEM-R5B-P2-Sump	7/15/2021 13:50	ABY391	M	C150960	2.87	2.78	0.0551	0.00064	0.00071	0.101	<0.0001	<0.001	0.087	0.000013	58.6	<0.001	<0.0002	0.00118	0.08	<0.0002	0.0378	45.0	0.0087	<0.0000019	0.0075	0.0021	
RSEM-R5B-P2-Sump	7/22/2021 13:25	ACL551	M	C152988	1.87	2.79	0.323	<0.0005	0.00081	0.0877	<0.0001	<0.001	0.139	0.000019	76.1	0.0011	0.00125	0.00155	0.635	0.0004	0.0524	42.4	0.0585	<0.0000019	0.005	0.0074	
RSEM-R5B-P2-Sump	7/28/2021 15:00	ACV591	M	C154699	2.52	2.18	0.0932	0.00061	0.00065	0.0822	<0.0001	<0.001	0.124	<0.00001	67.4	<0.001	0.00032	0.00114	0.128	<0.0002	0.0483	48.6	0.0129	<0.0000019	0.0061	0.0051	
RSEM-R5B-P2-Sump	8/12/2021 14:30	ADU543	M	C159104	2.47	2.56	0.0844	0.00052	0.00061	0.0833	<0.0001	<0.001	0.141	<0.00001	81.7	<0.001	0.00032	0.00115	0.125	<0.0002	0.0557	45.5	0.008	<0.0000019	0.0062	0.0054	
RSEM-R5B-P2-Sump	8/18/2021 14:30	AED524	M	C160793	1.88	<2.0	0.0766	0.00075	0.0006	0.0869	<0.0001	<0.001	0.132	<0.00001	76.7	<0.001	0.00021	0.00114	0.101	<0.0002	0.0495	55.6	0.0104	<0.0000019	0.0059	0.0046	
RSEM-R5B-P2-Sump	8/25/2021 12:50	AEP245	M	C162703	2.33	2.18	0.136	<0.0005	0.00048	0.0735	<0.0001	<0.001	0.097	0.000277	98.8	<0.001	0.0116	0.00187	0.07	<0.0002	0.0711	51.5	0.206	<0.0000019	0.0051	0.0427	
RSEM-R5B-P2-Sump	9/1/2021 12:55	AFC996	M	C165103	1.50	2.01	0.143	<0.0005	0.00042	0.0611	<0.0001	<0.001	0.142	0.000083	99.3	<0.001	0.00404	0.00148	0.154	<0.0002	0.0641	48.8	0.0725	<0.0000019	0.0044	0.0198	
RSEM-R5B-P2-Sump	9/8/2021 14:00	AFO064	M	C167059	2.05	1.79	0.122	<0.0005	0.0004	0.0623	<0.0001	<0.001	0.122	0.000028	90.4	<0.001	0.00114	0.00142	0.111	<0.0002	0.0588	56.3	0.0243	<0.0000019	0.0049	0.0112	
RSEM-R5B-P2-Sump	9/14/2021 14:05	AGB020	M	C169017	1.96	1.55	0.134	<0.0005	0.00046	0.065	<0.0001	<0.001	0.128	0.000027	84.7	<0.001	0.00059	0.0016	0.191	<0.0002	0.0581	52.3	0.017	<0.0000019	0.0046	0.0082	
RSEM-R5B-P2-Sump	9/23/2021 14:35	AGT569	M	C171954	1.81	1.81	0.187	<0.0005	0.00042	0.0604	<0.0001	<0.001	0.1	0.000019	78.7	<0.001	0.00033	0.00152	0.242	<0.0002	0.0457	49.3	0.0151	<0.0000019	0.0038	0.0054	
RSEM-R5B-P2-Sump	10/7/2021 12:40	AHU814	M	C176559	1.72	1.56	0.187	<0.0005	0.00038	0.0601	<0.0001	<0.001	0.086	0.000018	73.9	<0.001	0.00036	0.00153	0.465	0.00026	0.0366	42.1	0.0171	0.0000034	0.0031	0.0082	
RSEM-R5B-P2-Sump	10/14/2021 12:35	AIG811	M	C178651	1.79	1.11	0.0696	<0.0005	0.0003	0.0456	<0.0001	<0.001	0.077	<0.00001	73.6	<0.001	<0.0002	0.0009	0.109	<0.0002	0.0333	40.9	0.0067	<0.0000019	0.0028	0.0036	
RSEM-R5B-P2-Sump	10/20/2021 16:20	AIT539	M	C180689	1.83	1.68	0.225	<0.0005	0.00038	0.0484	<0.0001	<0.001	0.071	0.000014	75.7	<0.001	0.00024	0.00094	0.272	<0.0002	0.0353	44.4	0.009	<0.0000019	0.0037	0.0033	
RSEM-R5B-P2-Sump	10/27/2021 11:10	AJH726	M	C182990	1.26	1.34	0.134	<0.0005	0.00029	0.051	<0.0001	<0.001	0.072	0.000011	71.2	<0.001	0.00021	0.00099	0.166	<0.0002	0.0318	40.4	0.0149	<0.0000019	0.0032	0.0031	
RSEM-R5B-P2-Sump	11/2/2021 11:35	AJU791	M	C184881	1.39	1.67	1.25	<0.0005	0.00203	0.125	0.00011	<0.001	0.076	0.000135	103	0.0024	0.00181	0.00601	3.84	0.0021	0.0355	43.0	0.0731	0.0000134	0.0035	0.0099	
RSEM-R5B-P2-Sump	11/14/2021 14:00	AKS794	M	C188243	1.52	1.73	1.62	<0.0005	0.00185	0.124	<0.0001	<0.001	0.069	0.0001	123	0.0028	0.00197	0.0037	3.02	0.00159	0.03	42.0	0.0737	0.0000051	0.0041	0.0115	
RSEM-R5B-P2-Sump	11/16/2021 11:20	AKV422	M	C188704	1.58	1.11	0.828	<0.0005	0.00134	0.0966	<0.0001	<0.001	0.075	0.000069	109	0.003	0.00147	0.00263	2.29	0.00116	0.0322	41.6	0.0549	0.0000087	0.0032	0.0093	
RSEM-R6E-EOP	1/1/2021 15:00	ZC6627	M	C100093	2.72	2.27	0.0259	<0.0005	0.00038	0.125	<0.0001	<0.001	0.063	0.000036	90.2	<0.001	0.00084	0.00091	0.033	<0.0002	0.016	23.5	0.047	<0.0000019	0.0046	0.0083	
RSEM-R6E-EOP	1/2/2021 16:05	ZC7219	M	C100230	2.31	2.82	0.0237	<0.0005	0.00037	0.122	<0.0001	<0.001	0.067	0.000036	91.0	<0.001	0.00078	0.00085	0.032	<0.0002	0.0173	23.5	0.0467	<0.0000019	0.0044	0.0082	
RSEM-R6E-EOP	1/3/2021 8:45	ZC7222	M	C100232	2.37	2.77	0.0251	<0.0005	0.00039	0.127	<0.0001	<0.001	0.067	0.000041	94.3	<0.001	0.00079	0.00087	0.032	<0.0002	0.0183	24.8	0.0487	<0.0000019	0.0044	0.0083	
RSEM-R6E-EOP	1/4/2021 18:10	ZC8853	M	C100618	2.69	2.30	0.0242	<0.0005	0.00039	0.13	<0.0001	<0.001	0.061	0.000039	89.1	<0.001	0.00075	0.00088	0.043	<0.0002	0.0178	22.1	0.0548	<0.0000019	0.0042	0.0082	
RSEM-R6E-EOP	1/5/2021 11:35	ZC8847	M	C100616	2.12	2.25	0.0234	<0.0005	0.00041	0.13	<0.0001	<0.001	0.061	0.00004	93.3	<0.001	0.00065	0.00085	0.041	<0.0002	0.0182	23.2	0.0543	<0.0000019	0.0044	0.0079	
RSEM-R6E-EOP	1/5/2021 11:45	ZC8848	D	C100616	2.37	1.76	0.025	<0.0005	0.00041	0.134	<0.0001	<0.001	0.063	0.000035	95.4	<0.001	0.00068	0.00086	0.045	<0.0002	0.0186	24.1	0.0557	<0.0000019	0.0046	0.0081	
RSEM-R6E-EOP	1/6/2021 13:30	ZD1294	M	C101203	1.98	2.22	0.031	<0.0005	0.00042	0.127	<0.0001	<0.001	0.067	0.000038	91.7	<0.001	0.0008	0.00089	0.063	<0.0002	0.0185	24.4	0.0869	<0.0000019	0.0045	0.0074	
RSEM-R6E-EOP	1/7/2021 12:50	ZD2458	M	C101487	2.21	2.27	0.0303	<0.0005	0.00044	0.127	<0.0001	<0.001	0.073	0.00004	95.4	<0.001	0.0008	0.00068	0.061	<0.0002	0.0188	25.5	0.0877	<0.0000019	0.0045	0.0067	
RSEM-R6E-EOP	1/7/2021 13:00	ZD2459	D	C101487	2.08	2.24	0.0303	<0.0005	0.00043	0.129	<0.0001	<0.001	0.071	0.000033	93.1	<0.001	0.00079	0.0007	0.059	<0.0002	0.018	25.2	0.0881	<0.0000019	0.0046	0.0066	
RSEM-R6E-EOP	1/8/2021 13:10	ZD2449	M	C101485	2.32	2.29	0.0317	<0.0005	0.00043	0.129	<0.0001	<0.001	0.065	0.000034	90.7	<0.001	0.00069	0.00089	0.052	<0.0002	0.019	24.9	0.0764	<0.0000019	0.0047	0.0068	
RSEM-R6E-EOP	1/9/2021 14:10	ZD4126	M	C101792	2.31	2.14	0.0323	<0.0005	0.00043	0.124	<0.0001	<0.001	0.07	0.000032	88.0	<0.001	0.00073	0.00082	0.067	<0.0002	0.0226	24.3	0.0813	<0.0000019	0.0046	0.0064	
RSEM-R6E-EOP	1/10/2021 12:40	ZD4122	M	C101791	2.35	1.99	0.0454	<0.0005	0.00043	0.126	<0.0001	<0.001	0.071	0.000029	86.5	<0.001	0.00069	0.00076	0.067	<0.0002	0.0224	24.0	0.0823	<0.0000019	0.0044	0.006	
RSEM-R6E-EOP	1/10/2021 12:50	ZD4123	D	C101791	2.32	2.10	0.0405	<0.0005	0.00042	0.127	<0.0001	<0.001	0.072	0.00003	88.7	<0.001	0.00071	0.00077	0.07	<0.0002	0.0232	24.4	0.0829	<0.0000019	0.0046	0.0061	
RSEM-R6E-EOP	1/11/2021 14:10	ZD5674	M	C102082	2.05	1.96	0.0437	<0.0005	0.0004	0.134	<0.0001	<0.001	0.067	0.000028	87.7	<0.001	0.00061	0.0008	0.084	<0.0002	0.0182	23.7	0.0756	<0.0000019	0.0045	0.0054	
RSEM-R6E-EOP	1/12/2021 13:00	ZD8125	M	C102522	2.26	2.37	0.0416	<0.0005	0.0004	0.128	<0.0001	<0.001	0.072	0.000027	85.2	<0.001	0.00062	0.00077	0.059	<0.0002	0.0175	24.1	0.0805	<0.0000019	0.0043	0.0051	
RSEM-R6E-EOP	1/12/2021 13:10	ZD8126	D	C102522	2.11	2.40	0.0315	<0.0005	0.00041	0.131	<0.0001	<0.001	0.073	0.000026	88.0	<0.001	0.00065	0.00081	0.053	<0.0002	0.0183	25.0	0.0839	<0.0000019	0.0046	0.0054	
RSEM-R6E-EOP	1/13/2021 13:40	ZD9241	M	C102779	2.63	2.19	0.0284	<0.0005	0.00044	0.135	<0.0001	<0.001	0.068	0.000024	87.0	<0.001	0.00052	0.00066	0.056	<0.0002	0.0197	24.0	0.0768	<0.0000019	0.0043	0.0049	
RSEM-R6E-EOP	1/14/2021 10:10	ZD9430	M	C102840	2.29	2.01	0.0263	<0.0005	0.00043	0.138	<0.0001	<0.001	0.069	0.000021	89.9	<0.001	0.00049	0.00066	0.053	<0.0002	0.0198	24.1	0.07	<0.0000019	0.0043	0.0048	
RSEM-R6E-EOP	1/14/2021 10:20	ZD9432	D	C102840	2.01	2.15	0.0277	<0.0005	0.00041	0.135	<0.0001	<0.001	0.069	0.00002	86.7	<0.001	0.00046	0.00065	0.049	<0.0002	0.0197	24.2	0.068	<0.0000019	0.0041	0.0048	
RSEM-R6E-EOP	1/15/2021 13:05	ZE0828	M	C103125	2.27	1.12	0.0345	<0.0005	0.00039	0.137	<0.0001	<0.001	0.073	0.00002	88.2	<0.001	0.00049	0.00066	0.052	<0.0002	0.0192	23.3	0.0724	<0.0000019	0.0041	0.0044	
RSEM-R6E-EOP	1/16/2021 10:55	ZE2983	M	C103538	2.51	2.50	0.0285	<0.0005	0.00042	0.139	<0.0001	<0.001	0.067	0.000024	86.1	<0.001	0.00045	0.00066	0.054	<0.0002	0.0179	22.5	0.0689	<0.0000019	0.0041	0.0042	
RSEM-R6E-EOP	1/17/2021 13:20	ZE3021	M	C103542	2.81	2.78	0.0358	<0.0005	0.00037	0.136	<0.0001	<0.001	0.066	0.000019	84.0	<0.001	0.0004	0.00065	0.046	<0.0002	0.0171	21.9	0.0643	<0.0000019	0.0041	0.004	
RSEM-R6E-EOP	1/17/2021 13:30	ZE3022	D	C103542	2.73	2.52	0.0342	<0.0005	0.00038	0.136	<0.0001	<0.001	0.064	0.000018	83.7	<0.001	0.0004	0.00065	0.046	<0.0002	0.017	21.9	0.0638	<0.0000019	0.004	0.0038	
RSEM-R6E-EOP	1/18/2021 10:20	ZE2900	M	C103523	2.06	2.53	0.0337	<0.0005	0.00038	0.138	<0.0001	<0.001	0.066	0.000017	83.9	<0.001	0.0004	0.00065	0.048	<0.0002	0.0169	22.0	0.0651	<0.0000019	0.004	0.0038	
RSEM-R6E-EOP	1/19/2021 12:20	ZE5958	M	C104146	2.26	1.85	0.0272	<0.0005	0.00035	0.135	<0.0001	<0.001	0.074	0.000022	82.0	<0.001	0.0004	0.00081	0.055	<0.0002	0.0179	22.4	0.0617	<0.0000019	0.0037	0.0043	
RSEM-R6E-EOP	1/20/2021 12:15	ZE6017	M	C104156	2.46	2.27	0.0436	<0.0005	0.00033	0.135	<0.0001	<0.001	0.077	0.000016	84.0	<0.001	0.00038	0.00076	0.045	<0.0002	0.0171	21.7	0.0608	<0.0000019	0.0038	0.0041	
RSEM-R6E-EOP	1/21/2021 15:10	ZE9301	M	C104705	2.60	2.37	0.0225	<0.0005	0.00035	0.133	<0.0001	<0.001	0.063	0.000016	80.7	<0.001	0.0003	0.00068	0.048	<0.0002	0.0157	21.3	0.0472	<0.0000019	0.0036	0.0035	
RSEM-R6E-EOP	1/21/2021 15:20	ZE9303	D	C104705	2.63	2.42	0.0205	<0.0005	0.00033	0.135	<0.0001	<0.001	0.063	0.000015	82.2	<0.001	0.00032	0.00069	0.037	<0.0002	0.0164	21.9	0.0489	<0.0000019	0.0037	0.0037	
RSEM-R6E-EOP	1/22/2021 13:00	ZE9298	M	C104704	2.84	2.39	0.0213	<0.0005	0.00035	0.135	<0.0001	<0.001	0.064	0.000014	84.8	<0.001	0.00026	0.00065	0.031	<0.0002	0.0164	21.9	0.0438	<0.0000019	0.0037	0.0035	
RSEM-R6E-EOP	1/23/2021 15:45	ZF1596	M	C105086	2.60	2.64	0.0186	<0.0005	0.00032	0.134	<0.0001	<0.001	0.063	0.000015	82.2	<0.001	0.00026	0.00068	0.031	<0.0002	0.015	20.9	0.0421	<0.0000019	0.0037	0.0034	
RSEM-R6E-EOP	1/24/2021 13:45	ZF1581	M	C105082	2.61	2.43	0.0217	<0.0005	0.00031	0.134	<0.0001	<0.001	0.06	0.000012	82.5	<0.001	0.00023	0.00069	0.032	<0.0002	0.0143	21.3	0.0387	<0.0000019	0.0037	0.0034	
RSEM-R6E-EOP	1/25/2021 9:50	ZF1640	M	C105090	2.99	2.28	0.0221	<0.0005	0.00032	0.129	<0.0001	<0.001	0.066	0.000013	83.5	<0.001	0.00022	0.00069	0.032	<0.0002	0.015	21.4	0.0372	<0.0000019	0.0038	0.0034	
RSEM-R6E-EOP	1/26/2021 13:20	ZF4771	M	C105637	2.38	2.49	0.0271	<0.0005	0.00036	0.139	<0.0001	<0.001	0.067	0.000017	89.3	<0.001	0.00034	0.00068	0.056	<0.0002	0.0165	22.3	0.0562	<0.0000019	0.0039	0.0035	
RSEM-R6E-EOP	1/26/2021 13:30	ZF4772	D	C105637	2.51	2.38	0.03	<0.0005	0.00038	0.143	<0.0001	<0.001	0.067	0.000015	89.3	<0.001	0.00033	0.00072	0.048	<0.0002	0.0167	23.0	0.0572	<0.0000019	0.0041	0.0036	
RSEM-R6E-EOP	1/27/2021 15:30	ZF6161	M	C105925	2.45	2.07	0.0211	<0.0005	0.00035	0.142	<0.0001	<0.001	0.067	0.000019	88.7	<0.001	0.00033	0.00069	0.047	<0.0002	0.0171	22.4	0.0595	<0.0000019	0.0041	0.0035	
RSEM-R6E-EOP	1/28/2021 15:30	ZF8627	M	C106327	2.66	2.09	0.0266	<0.0005	0.00037	0.14	<0.0001	<0.001	0.065	0.000016	82.4	<0.001	0.00033	0.00076	0.052	<0.0002	0.0158	21.8	0.0613	<0.0000019	0.0042	0.0035	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	1/28/2021 15:40	ZF8628	D	C106327	2.25	2.00	0.0267	<0.0005	0.00036	0.134	<0.0001	<0.001	0.062	0.000012	81.4	<0.001	0.00033	0.0007	0.049	<0.0002	0.0152	21.3	0.0592	<0.0000019	0.0041	0.0034	
RSEM-R6E-EOP	1/29/2021 13:05	ZF8823	M	C106336	2.63	2.12	0.0304	<0.0005	0.00038	0.134	<0.0001	<0.001	0.064	0.000019	81.4	<0.001	0.00031	0.00069	0.048	<0.0002	0.0154	20.8	0.0534	<0.0000019	0.0042	0.0033	
RSEM-R6E-EOP	1/30/2021 13:45	ZG1727	M	C106702	2.70	2.99	0.0309	<0.0005	0.00038	0.142	<0.0001	<0.001	0.066	0.000017	86.2	<0.001	0.00034	0.00077	0.052	<0.0002	0.0154	22.0	0.058	<0.0000019	0.0044	0.0035	
RSEM-R6E-EOP	1/30/2021 13:55	ZG1728	D	C106702	2.66	2.76	0.0266	<0.0005	0.00038	0.141	<0.0001	<0.001	0.071	0.000016	88.5	<0.001	0.00033	0.00077	0.049	<0.0002	0.0167	21.7	0.0564	<0.0000019	0.0045	0.0039	
RSEM-R6E-EOP	1/31/2021 12:25	ZG1721	M	C106699	2.60	2.63	0.0373	<0.0005	0.00039	0.141	<0.0001	<0.001	0.067	0.000012	86.7	<0.001	0.00034	0.00079	0.061	<0.0002	0.0156	22.6	0.0596	<0.0000019	0.0047	0.0036	
RSEM-R6E-EOP	2/1/2021 14:15	ZG3586	M	C106954	2.51	2.49	0.0349	<0.0005	0.00038	0.137	<0.0001	<0.001	0.068	0.000016	82.2	<0.001	0.00035	0.00077	0.072	<0.0002	0.0147	21.0	0.0595	<0.0000019	0.0047	0.0035	
RSEM-R6E-EOP	2/1/2021 14:25	ZG3587	D	C106954	2.66	2.22	0.0314	<0.0005	0.0004	0.133	<0.0001	<0.001	0.068	0.000016	84.5	<0.001	0.00034	0.00073	0.074	<0.0002	0.0146	20.5	0.0586	<0.0000019	0.0046	0.0034	
RSEM-R6E-EOP	2/2/2021 13:35	ZG6913	M	C107364	2.39	2.19	0.0274	<0.0005	0.00045	0.141	<0.0001	<0.001	0.067	0.000012	83.0	<0.001	0.00029	0.00072	0.065	<0.0002	0.0163	19.9	0.0491	<0.0000019	0.0048	0.0031	
RSEM-R6E-EOP	2/6/2021 13:20	ZH3138	M	C108285	3.04	2.32	0.0349	<0.0005	0.00042	0.147	<0.0001	<0.001	0.081	<0.00001	87.1	<0.001	0.0003	0.00082	0.058	<0.0002	0.0162	22.4	0.0425	<0.0000019	0.0053	0.0034	
RSEM-R6E-EOP	2/7/2021 13:15	ZH3206	M	C108294	3.04	2.43	0.0399	<0.0005	0.00039	0.142	<0.0001	<0.001	0.082	0.000013	83.0	<0.001	0.00025	0.00082	0.064	<0.0002	0.0158	21.6	0.0336	<0.0000019	0.0052	0.0032	
RSEM-R6E-EOP	2/9/2021 15:40	ZH7146	M	C109072	2.63	2.49	0.0244	<0.0005	0.00037	0.145	<0.0001	<0.001	0.073	0.000012	82.2	<0.001	0.00022	0.00086	0.044	<0.0002	0.0154	20.9	0.0311	<0.0000019	0.0052	0.0032	
RSEM-R6E-EOP	2/10/2021 13:00	ZH7145	M	C109071	2.71	2.62	0.0271	<0.0005	0.00037	0.148	<0.0001	<0.001	0.076	0.000012	83.5	<0.001	0.00022	0.00083	0.048	<0.0002	0.0158	21.8	0.0314	<0.0000019	0.0053	0.0032	
RSEM-R6E-EOP	2/11/2021 16:45	ZH8474	M	C109352	2.93	2.70	0.0299	<0.0005	0.00042	0.15	<0.0001	<0.001	0.083	0.000012	85.6	<0.001	0.00023	0.00081	0.049	<0.0002	0.0176	23.0	0.0353	<0.0000019	0.0055	0.0032	
RSEM-R6E-EOP	2/12/2021 10:40	ZH8472	M	C109351	2.90	2.17	0.0345	<0.0005	0.00043	0.146	<0.0001	<0.001	0.085	0.000013	83.4	<0.001	0.00022	0.00087	0.124	<0.0002	0.0181	22.8	0.0333	<0.0000019	0.0053	0.0034	
RSEM-R6E-EOP	2/13/2021 13:30	ZH8989	M	C109471	2.56	2.88	0.0336	<0.0005	0.00037	0.141	<0.0001	<0.001	0.077	0.000012	81.2	<0.001	0.00025	0.00086	0.052	<0.0002	0.0154	20.7	0.0386	<0.0000019	0.0052	0.0033	
RSEM-R6E-EOP	2/14/2021 9:45	ZI0120	M	C109675	2.18	2.44	0.0287	<0.0005	0.00037	0.141	<0.0001	<0.001	0.078	0.000014	81.6	<0.001	0.00023	0.00077	0.053	<0.0002	0.0162	21.4	0.0383	<0.0000019	0.0051	0.0033	
RSEM-R6E-EOP	2/19/2021 12:45	ZI6370	M	C110747	3.04	2.12	0.0432	<0.0005	0.00039	0.15	<0.0001	<0.001	0.077	0.000014	83.6	<0.001	0.0003	0.00084	0.057	<0.0002	0.0155	21.6	0.0453	<0.0000019	0.0056	0.0034	
RSEM-R6E-EOP	2/20/2021 11:30	ZI8655	M	C111165	2.78	2.55	0.0304	<0.0005	0.0004	0.144	<0.0001	<0.001	0.079	0.000013	79.4	<0.001	0.00028	0.00083	0.048	<0.0002	0.015	21.3	0.0452	<0.0000019	0.0052	0.0032	
RSEM-R6E-EOP	2/21/2021 13:30	ZI8310	M	C111114	2.49	2.54	0.0322	<0.0005	0.00036	0.144	<0.0001	<0.001	0.076	0.000014	81.5	<0.001	0.00035	0.00076	0.058	<0.0002	0.015	20.5	0.0598	<0.0000019	0.0052	0.0032	
RSEM-R6E-EOP	2/22/2021 15:20	ZJ0342	M	C111442	2.59	2.63	0.0992	<0.0005	0.00046	0.137	<0.0001	<0.001	0.075	0.000022	72.5	<0.001	0.00061	0.00089	0.187	<0.0002	0.0138	18.0	0.1	<0.0000019	0.0051	0.0032	
RSEM-R6E-EOP	2/22/2021 15:30	ZJ0343	D	C111442	2.64	2.52	0.107	<0.0005	0.00047	0.142	<0.0001	<0.001	0.074	0.000026	74.9	<0.001	0.00063	0.00088	0.21	<0.0002	0.0144	18.4	0.104	<0.0000019	0.0052	0.0032	
RSEM-R6E-EOP	2/23/2021 14:55	ZJ2756	M	C111785	2.99	2.32	0.0674	<0.0005	0.00045	0.137	<0.0001	<0.001	0.077	0.000024	72.8	<0.001	0.00055	0.00089	0.141	<0.0002	0.0139	17.8	0.094	<0.0000019	0.0054	0.0033	
RSEM-R6E-EOP	2/24/2021 13:50	ZJ5662	M	C112157	3.40	2.27	0.0522	<0.0005	0.00048	0.15	<0.0001	<0.001	0.076	0.000021	82.0	<0.001	0.00059	0.00095	0.096	<0.0002	0.0152	19.9	0.0992	<0.0000019	0.0061	0.0038	
RSEM-R6E-EOP	2/24/2021 14:00	ZJ5663	D	C112157	2.95	1.91	0.0424	<0.0005	0.00044	0.136	<0.0001	<0.001	0.071	0.000024	74.9	<0.001	0.00054	0.00084	0.084	<0.0002	0.0143	18.4	0.0894	<0.0000019	0.0057	0.0034	
RSEM-R6E-EOP	2/25/2021 12:20	ZJ8555	M	C112624	3.50	1.87	0.0626	<0.0005	0.00052	0.132	<0.0001	<0.001	0.074	0.000022	74.5	<0.001	0.00046	0.0008	0.081	<0.0002	0.0151	17.3	0.0693	<0.0000019	0.0065	0.0031	
RSEM-R6E-EOP	2/28/2021 13:00	ZK2233	M	C113095	3.86	3.39	0.0351	<0.0005	0.00043	0.123	<0.0001	<0.001	0.072	0.000028	74.1	0.0011	0.00054	0.00152	0.07	<0.0002	0.013	17.4	0.062	<0.0000019	0.006	0.004	
RSEM-R6E-EOP	3/1/2021 9:50	ZK1994	M	C113051	2.92	2.93	0.0254	<0.0005	0.00041	0.12	<0.0001	<0.001	0.068	0.000021	71.1	<0.001	0.00044	0.00094	0.044	<0.0002	0.0123	17.0	0.0652	<0.0000019	0.0057	0.0037	
RSEM-R6E-EOP	3/2/2021 15:45	ZK8062	M	C114225	2.85	2.74	0.0239	<0.0005	0.00043	0.133	<0.0001	<0.001	0.075	0.000019	74.0	<0.001	0.00047	0.00091	0.044	<0.0002	0.014	17.8	0.0702	<0.0000019	0.0063	0.0036	
RSEM-R6E-EOP	3/3/2021 15:30	ZK8060	M	C114224	3.25	2.95	0.0257	<0.0005	0.00042	0.132	<0.0001	<0.001	0.073	0.00002	73.3	<0.001	0.00046	0.00087	0.044	<0.0002	0.0138	17.4	0.069	<0.0000019	0.0064	0.0035	
RSEM-R6E-EOP	3/4/2021 14:00	ZL0407	M	C114582	3.11	2.76	0.0264	<0.0005	0.00038	0.133	<0.0001	<0.001	0.076	0.000017	73.3	<0.001	0.00044	0.00081	0.042	<0.0002	0.0149	18.3	0.0676	<0.0000019	0.006	0.0034	
RSEM-R6E-EOP	3/5/2021 12:40	ZL0413	M	C114584	3.00	2.98	0.0244	<0.0005	0.0004	0.134	<0.0001	<0.001	0.075	0.00002	74.9	<0.001	0.00045	0.00084	0.038	<0.0002	0.0147	18.5	0.0695	<0.0000019	0.0064	0.0034	
RSEM-R6E-EOP	3/6/2021 9:30	ZL3535	M	C115040	3.04	2.46	0.291	<0.0005	0.00074	0.13	<0.0001	<0.001	0.061	0.00004	68.8	0.0013	0.00086	0.00131	0.586	0.00026	0.0146	16.6	0.131	<0.0000019	0.0057	0.0043	
RSEM-R6E-EOP	3/7/2021 13:20	ZL3596	M	C115055	2.34	2.21	0.504	0.00064	0.00062	0.131	<0.0001	<0.001	<0.05	0.000038	55.6	0.0013	0.00047	0.00105	0.556	0.00027	0.0139	14.3	0.11	<0.0000019	0.0047	0.0024	
RSEM-R6E-EOP	3/8/2021 12:00	ZL3597	M	C115055	2.78	2.56	0.216	0.00059	0.00052	0.115	<0.0001	<0.001	<0.05	0.000034	57.7	<0.001	0.00044	0.0007	0.251	<0.0002	0.0138	14.7	0.0997	<0.0000019	0.0051	0.0024	
RSEM-R6E-EOP	3/9/2021 14:40	ZL6925	M	C115720	2.39	2.15	0.117	0.00068	0.00046	0.113	<0.0001	<0.001	<0.05	0.000028	57.7	<0.001	0.00038	0.00067	0.135	<0.0002	0.0133	14.8	0.09	<0.0000019	0.0048	0.0023	
RSEM-R6E-EOP	3/10/2021 12:45	ZL8187	M	C115987	2.40	2.24	0.037	0.00063	0.00036	0.108	<0.0001	<0.001	<0.05	0.000022	57.3	<0.001	0.00034	0.00059	0.041	<0.0002	0.0127	14.9	0.0756	<0.0000019	0.0047	0.0022	
RSEM-R6E-EOP	3/11/2021 12:50	ZL8465	M	C116050	2.80	2.02	0.0237	0.00061	0.00036	0.107	<0.0001	<0.001	<0.05	0.000017	57.9	<0.001	0.0003	0.00067	0.028	<0.0002	0.0124	14.7	0.0669	<0.0000019	0.0048	0.0023	
RSEM-R6E-EOP	3/13/2021 13:50	ZM2421	M	C116756	2.17	1.75	0.0242	0.00063	0.00034	0.107	<0.0001	<0.001	<0.05	0.000017	57.6	<0.001	0.00026	<0.0005	0.027	<0.0002	0.0128	14.1	0.0574	<0.0000019	0.0047	0.0019	
RSEM-R6E-EOP	3/15/2021 11:40	ZM4113	M	C117045	2.54	1.38	0.0838	0.00066	0.00044	0.109	<0.0001	<0.001	<0.05	0.000024	60.5	<0.001	0.00041	0.00068	0.138	<0.0002	0.0141	15.1	0.0857	<0.0000019	0.0049	0.0025	
RSEM-R6E-EOP	3/15/2021 11:50	ZM4114	D	C117045	2.56	1.87	0.0718	0.00065	0.00043	0.108	<0.0001	<0.001	<0.05	0.000028	60.5	<0.001	0.00042	0.00065	0.139	<0.0002	0.0141	15.4	0.0852	<0.0000019	0.005	0.0025	
RSEM-R6E-EOP	3/16/2021 13:30	ZM5656	M	C117434	2.55	2.16	0.13	0.00063	0.00044	0.103	<0.0001	<0.001	<0.05	0.000027	57.5	<0.001	0.00038	0.00084	0.205	<0.0002	0.0134	14.3	0.0679	<0.0000019	0.0047	0.0025	
RSEM-R6E-EOP	3/17/2021 14:10	ZM7317	M	C117752	2.33	2.16	0.0869	0.00064	0.00044	0.0993	<0.0001	<0.001	<0.05	0.000024	55.3	<0.001	0.00038	0.00083	0.144	<0.0002	0.0128	14.0	0.0674	<0.0000019	0.0046	0.0024	
RSEM-R6E-EOP	3/17/2021 14:20	ZM7318	D	C117752	2.62	2.02	0.0838	0.00066	0.00042	0.0977	<0.0001	<0.001	<0.05	0.000025	55.5	<0.001	0.00038	0.00087	0.143	<0.0002	0.0127	14.0	0.0672	<0.0000019	0.0048	0.0025	
RSEM-R6E-EOP	3/18/2021 12:40	ZM8873	M	C118063	3.10	2.41	0.061	0.00063	0.00041	0.0923	<0.0001	<0.001	<0.05	0.000034	59.4	<0.001	0.00065	0.00082	0.137	<0.0002	0.0139	14.9	0.0699	<0.0000019	0.0046	0.004	
RSEM-R6E-EOP	3/19/2021 13:05	ZM8864	M	C118061	2.67	2.52	0.0687	0.00062	0.0004	0.0874	<0.0001	<0.001	<0.05	0.000031	57.2	<0.001	0.00067	0.00096	0.128	<0.0002	0.0136	13.9	0.065	<0.0000019	0.0047	0.0041	
RSEM-R6E-EOP	3/19/2021 13:15	ZM8865	D	C118061	2.95	2.27	0.0822	0.00059	0.00042	0.0884	<0.0001	<0.001	<0.05	0.000034	58.6	<0.001	0.00066	0.00103	0.158	<0.0002	0.0137	14.0	0.0653	<0.0000019	0.0048	0.0043	
RSEM-R6E-EOP	3/20/2021 15:35	ZN1534	M	C118497	3.30	2.93	0.125	0.00057	0.00042	0.0855	<0.0001	<0.001	<0.05	0.000038	57.8	0.0012	0.00087	0.00114	0.181	<0.0002	0.0133	13.3	0.0684	<0.0000019	0.0049	0.0052	
RSEM-R6E-EOP	3/21/2021 11:45	ZN1581	M	C118513	3.11	3.28	0.0639	0.00056	0.00039	0.0839	<0.0001	<0.001	<0.05	0.000033	58.0	0.0011	0.00068	0.00109	0.094	<0.0002	0.0131	13.3	0.0556	<0.0000019	0.0048	0.0048	
RSEM-R6E-EOP	3/21/2021 11:55	ZN1582	D	C118513	3.00	3.06	0.0678	0.00057	0.00039	0.0838	<0.0001	<0.001	<0.05	0.000035	58.7	0.0011	0.00071	0.00108	0.097	<0.0002	0.0133	13.4	0.0562	<0.0000019	0.0048	0.005	
RSEM-R6E-EOP	3/22/2021 10:50	ZN1161	M	C118411	2.80	3.04	0.0755	0.00058	0.00036	0.0837	<0.0001	<0.001	<0.05	0.000036	58.8	0.001	0.00065	0.00105	0.089	<0.0002	0.0136	13.3	0.0538	<0.0000019	0.0049	0.0048	
RSEM-R6E-EOP	3/23/2021 13:10	ZN5253	M	C119350	2.60	2.61	0.0417	0.00055	0.00034	0.0817	<0.0001	<0.001	<0.05	0.00003	60.0	<0.001	0.00057	0.00098	0.049	<0.0002	0.0146	13.1	0.0474	<0.0000019	0.0049	0.0046	
RSEM-R6E-EOP	3/24/2021 11:45	ZN5256	M	C119352	2.35	2.81	0.0432	0.00056	0.00034	0.0817	<0.0001	<0.001	<0.05	0.000031	61.0	<0.001	0.00059	0.00101	0.051	<0.0002	0.0146	12.9	0.0483	<0.0000019	0.005	0.0048	
RSEM-R6E-EOP	3/26/2021 11:50	ZN6315	M	C119607	2.86	2.19	0.0369	0.00056	0.00035	0.082	<0.0001	<0.001	<0.05	0.00003	60.8	<0.001	0.00046	0.00098	0.042	<0.0002	0.0146	12.9	0.0323	<0.0000019	0.005	0.0044	
RSEM-R6E-EOP	3/27/2021 13:30	ZN9494	M	C120087	1.77	2.68	0.0509	0.00051	0.00034	0.0764	<0.0001	<0.001	<0.05	0.000027	57.1	0.0011	0.00054	0.00093	0.053	<0.0002	0.0137	12.4	0.0411	<0.0000019	0.0048	0.0045	
RSEM-R6E-EOP	3/28/2021 10:50	ZN9521	M	C120093	2.33	2.48	0.064	0.00052	0.00038	0.0818	<0.0001	<0.001	<0.05	0.000038	59.7	<0.001	0.00075	0.00111	0.081	<0.0002	0.0142	13.2	0.056	<0.0000019	0.0054	0.0053	
RSEM-R6E-EOP	3/29/2021 10:30	ZN9580	M	C120108	2.16	2.47	0.0673	0.0005	0.00036	0.0811	<0.0001	<0.001	<0.05	0.000032	61.1	0.0011	0.00066	0.00129	0.073	<0.0002	0.0145	13.4	0.048	<0.0000019	0.0055	0.0055	
RSEM-R6E-EOP	3/30/2021 13:15	ZO2683	M	C120790	2.55	2.57	0.0372	0.00051	0.00036	0.0834	<0.0001	<0.001	<0.05	0.000029	62.7	<0.001	0.00055	0.00102	0.041	<0.0002	0.0134	13.5	0.034	<0.0000019	0.0053	0.0047	
RSEM-R6E-EOP	3/31/2021 16:30	ZO4116	M	C121130	2.92	2.63	0.0542	<0.0005	0.00036	0.0826	<0.0001	<0.001	<0.05	0.000033	60.9	<0.001	0.00085	0.00113	0.067	<0.0002	0.0129	13.7	0.0517	<0.0000019	0.0055	0.0057	
RSEM-R6E-EOP	4/1/2021 11:10	ZO4122	M	C121132	3.09	2.80	0.0763	<0.0005	0.00037	0.0849	<0.0001	<0.001	<0.05	0.000041	61.8	<0.001	0.00099	0.00116	0.082	<0.0002	0.0134	14.2	0.0578	<0.0000019	0.0056	0.0063	
RSEM-R6E-EOP	4/1/2021 11:20	ZO4123	D	C121132	2.99	2.85	0.064	<0.0005	0.00036	0.0819	<0.0001	<0.001	<0.05	0.000037	61.7	<0.001	0.00098	0.00115	0.076	<0.0002	0.0132	13.7	0.0566	<0.0000019	0.0054	0.0062	
RSEM-R6E-EOP	4/2/2021 12:30	ZO4864	M	C121238	2.74	2.93	0.104	<0.0005	0.00046	0.0745	<0.0001	<0.001	<0.05	0.00005	57.8	<0.001	0.00101	0.00129	0.129	<0.0002	0.0122	11.9	0.0637	<0.0000019	0.0055	0.0061	
RSEM-R6E-EOP	4/3/2021 13:00	ZO6449	M	C121575	2.75	2.44	0.124	<0.0005	0.00038	0.0783	<0.0001	<0.001	<0.05	0.000039	55.2	<0.001	0.00094	0.00124	0.124	<0.0002	0.0136	12.9	0.0572	<0.0000019	0.005	0.0058	
RSEM-R6E-EOP	4/4/2021 12:40	ZO6463	M	C121580	2.56	2.52	0.213	0.00061	0.00051	0.0994	<0.0001	<0.001	<0.05	0.000042	53.8	0.0012	0.0011	0.00144	0.266	<0.0002	0.0141	12.8	0.0679	0.0000024	0.0054	0.006	
RSEM-R6E-EOP	4/5/2021 12:30	ZO7516	M	C121801	2.22	2.06	0.36	0.00146	0.00083	0.188	<0.0001	<0.001	0.054	0.00005	44.7	0.0017	0.00149	0.0018	0.303	<0.0002	0.0188	11.7	0.0624	0.0000024	0.0069	0.0064	
RSEM-R6E-EOP	4/5/2021 12:40	ZO7517	D	C121801	2.37	2.06	0.404	0.00145	0.00083	0.187	<0.0001	<0.001	0.054	0.000046	44.3	0.0019	0.00148	0.00188	0.32	<0.0002	0.0187	11.8	0.0631	0.0000021	0.0072	0.0065	
RSEM-R6E-EOP	4/6/2021 14:20	ZO9474	M	C122250	2.62	2.56	0.17	0.00156	0.00084	0.192	<0.0001	<0.001	0.051	0.000034	44.2	0.0017	0.00114	0.00155	0.163	<0.0002	0.0194	12.1	0.0577	<0.0000019	0.0075	0.0056	
RSEM-R6E-EOP	4/7/2021 14:30	ZP0880	M	C122580	2.60	2.30	0.0851	0.00145	0.00079	0.181	<0.0001	<0.001	0.05	0.000028	43.3	0.0013	0.00096	0.0015	0.102	<0.0002	0.0163	12.2	0.0508	<0.0000019	0.0073	0.005	
RSEM-R6E-EOP	4/8/2021 12:00	ZP1742	M	C122796	2.36	1.67	0.0611	0.00132	0.00066	0.165	<0.0001	<0.001	<0.05	0.000028	40.2	0.0012	0.00079	0.00129	0.068	<0.0002	0.0165	11.2	0.0431	<0.0000019	0.0066	0.0044	
RSEM-R6E-EOP	4/9/2021 13:20	ZP1764	M	C122801	2.27	2.08	0.063	0.0013	0.00065	0.161	<0.0001	<0.001	<0.05	0.000025	42.0	0.0015	0.0007	0.00122	0.069	<0.0002	0.0163	11.0	0.0394	<0.0000019	0.0066	0.0044	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	4/10/2021 11:05	ZP3593	M	C123204	1.88	2.24	0.0594	0.00135	0.00064	0.162	<0.0001	<0.001	<0.05	0.000023	41.5	0.0012	0.00065	0.00119	0.058	<0.0002	0.0166	11.3	0.0363	<0.0000019	0.0067	0.0043	
RSEM-R6E-EOP	4/11/2021 12:30	ZP3856	M	C123260	1.97	1.95	0.0465	0.00133	0.00062	0.163	<0.0001	<0.001	<0.05	0.000023	43.1	0.0011	0.00057	0.00118	0.046	<0.0002	0.0167	11.4	0.0309	<0.0000019	0.007	0.0041	
RSEM-R6E-EOP	4/11/2021 12:40	ZP3857	D	C123260	1.99	2.13	0.0515	0.00125	0.00061	0.156	<0.0001	<0.001	<0.05	0.000023	40.8	0.0013	0.00054	0.00116	0.053	<0.0002	0.0162	11.3	0.0301	<0.0000019	0.0066	0.004	
RSEM-R6E-EOP	4/12/2021 10:40	ZP3853	M	C123259	2.02	2.00	0.0516	0.00124	0.0006	0.156	<0.0001	<0.001	<0.05	0.000016	41.3	0.0011	0.00048	0.00113	0.044	<0.0002	0.0161	11.2	0.025	<0.0000019	0.0067	0.0039	
RSEM-R6E-EOP	4/13/2021 11:30	ZP9470	M	C124396	1.71	1.97	0.0388	0.00118	0.00056	0.143	<0.0001	<0.001	<0.05	0.00002	41.0	0.001	0.00038	0.00112	0.044	<0.0002	0.0163	11.3	0.019	<0.0000019	0.0065	0.0035	
RSEM-R6E-EOP	4/14/2021 11:00	ZP9473	M	C124397	1.69	1.77	0.0472	0.0011	0.00054	0.137	<0.0001	<0.001	<0.05	0.000017	40.4	<0.001	0.00038	0.00117	0.056	<0.0002	0.0157	11.4	0.0204	<0.0000019	0.0064	0.0035	
RSEM-R6E-EOP	4/15/2021 17:40	ZQ1505	M	C124804	2.11	2.08	0.288	0.00111	0.00085	0.295	<0.0001	<0.001	0.052	0.000018	42.8	0.0012	0.00057	0.00107	0.268	<0.0002	0.0187	12.1	0.0339	<0.0000019	0.0063	0.0033	
RSEM-R6E-EOP	4/16/2021 10:40	ZQ1481	M	C124799	2.18	2.16	0.304	0.00116	0.0009	0.33	<0.0001	<0.001	0.052	0.000015	42.3	0.0014	0.00048	0.00079	0.19	<0.0002	0.0191	11.9	0.0283	<0.0000019	0.0062	0.0028	
RSEM-R6E-EOP	4/17/2021 11:30	ZQ3724	M	C125158	2.23	1.70	0.154	0.00112	0.00089	0.316	<0.0001	<0.001	<0.05	0.000012	39.8	0.0013	0.00035	0.00059	0.091	<0.0002	0.0189	11.2	0.0204	<0.0000019	0.006	0.0023	
RSEM-R6E-EOP	4/18/2021 10:45	ZQ3727	M	C125158	1.57	1.55	0.187	0.0011	0.00086	0.304	<0.0001	<0.001	<0.05	0.000014	40.1	0.0012	0.00033	0.00073	0.149	<0.0002	0.0185	11.4	0.0175	<0.0000019	0.0059	0.0023	
RSEM-R6E-EOP	4/19/2021 12:15	ZQ5794	M	C125554	1.93	1.73	0.184	0.00113	0.00091	0.308	<0.0001	<0.001	0.052	0.000019	41.1	0.0011	0.00038	0.001	0.266	0.00021	0.0181	11.8	0.0189	<0.0000019	0.006	0.0026	
RSEM-R6E-EOP	4/20/2021 10:45	ZQ9980	M	C126323	1.80	2.04	0.267	0.00118	0.00101	0.318	<0.0001	<0.001	0.051	0.000019	42.3	0.0012	0.00035	0.00109	0.354	0.00025	0.0183	11.3	0.0176	0.0000028	0.0062	0.0026	
RSEM-R6E-EOP	4/21/2021 10:30	ZQ9983	M	C126323	1.92	1.97	0.245	0.0011	0.00084	0.275	<0.0002	<0.002	<0.1	<0.00002	41.0	<0.002	<0.0004	0.001	0.311	<0.0004	0.0168	11.1	0.015	<0.0000019	0.0057	0.0025	
RSEM-R6E-EOP	4/22/2021 9:45	ZR1312	M	C126529	1.90	1.77	0.216	0.00107	0.0009	0.288	<0.0001	<0.001	0.058	0.000015	44.7	0.0011	0.00027	0.00123	0.299	0.00021	0.0188	12.9	0.0123	<0.0000019	0.0065	0.0025	
RSEM-R6E-EOP	4/23/2021 9:45	ZR1315	M	C126529	1.94	2.09	0.168	0.00115	0.00087	0.289	<0.0001	<0.001	0.061	0.000014	46.3	<0.001	0.00022	0.00122	0.25	0.0002	0.0198	13.7	0.0112	<0.0000019	0.0065	0.0026	
RSEM-R6E-EOP	4/24/2021 3:00	ZR4687	M	C127059	1.96	1.96	0.196	0.00106	0.00083	0.267	<0.0001	<0.001	<0.05	0.000014	42.8	<0.001	0.00027	0.00115	0.299	0.00021	0.0175	11.4	0.0145	<0.0000019	0.0062	0.0025	
RSEM-R6E-EOP	4/25/2021 14:30	ZR4685	M	C127059	2.22	2.14	0.226	0.00102	0.00086	0.254	<0.0001	<0.001	0.051	0.000012	42.7	<0.001	0.00026	0.00117	0.351	0.00021	0.0176	11.9	0.0138	<0.0000019	0.0064	0.0025	
RSEM-R6E-EOP	4/26/2021 10:45	ZR5704	M	C127281	2.12	2.27	0.237	0.00104	0.00091	0.261	<0.0001	<0.001	0.055	0.000019	44.6	0.0085	0.00033	0.00127	0.404	0.00025	0.0181	12.1	0.018	0.000002	0.0143	0.0338	
RSEM-R6E-EOP	4/27/2021 15:30	ZR7958	M	C127704	1.81	1.78	0.287	0.00106	0.00086	0.257	<0.0001	<0.001	0.065	0.000018	47.1	0.0082	0.00032	0.00139	0.391	0.00025	0.0168	12.7	0.0156	<0.0000019	0.0145	0.035	
RSEM-R6E-EOP	4/28/2021 12:40	ZS0315	M	C128230	2.06	1.19	0.187	0.00099	0.00087	0.237	<0.0001	<0.001	0.057	0.000017	44.6	0.0011	0.00028	0.00138	0.337	0.00022	0.0156	12.3	0.0146	0.0000034	0.0066	0.0029	
RSEM-R6E-EOP	4/29/2021 10:20	ZS2292	M	C128584	1.92	2.18	0.327	0.00099	0.00085	0.245	<0.0001	<0.001	0.056	0.000016	47.0	0.0015	0.00028	0.00129	0.38	0.00024	0.0145	12.8	0.0147	<0.0000019	0.0068	0.0035	
RSEM-R6E-EOP	4/30/2021 11:05	ZS2249	M	C128573	2.19	2.56	0.287	0.00097	0.0008	0.246	<0.0001	<0.001	0.057	0.000014	49.1	0.0014	0.00026	0.00133	0.333	<0.0002	0.0144	13.6	0.0144	<0.0000019	0.0069	0.004	
RSEM-R6E-EOP	5/3/2021 10:15	ZS6021	M	C129096	2.05	1.98	0.228	0.00086	0.00076	0.219	<0.0001	<0.001	0.054	0.000014	43.4	0.0164	0.00039	0.00186	0.316	0.00022	0.0154	12.5	0.0191	<0.0000019	0.0232	0.07	
RSEM-R6E-EOP	5/4/2021 13:30	ZS9945	M	C129944	2.22	2.22	0.168	0.00087	0.00075	0.213	<0.0001	<0.001	0.06	0.000012	45.7	<0.001	0.00021	0.00159	0.237	<0.0002	0.0162	13.3	0.0142	<0.0000019	0.0065	0.0025	
RSEM-R6E-EOP	5/5/2021 12:50	ZT3122	M	C130491	2.22	2.13	0.176	0.00079	0.00068	0.189	<0.0001	<0.001	0.058	<0.00001	46.9	0.0019	0.0002	0.00137	0.196	<0.0002	0.0153	13.5	0.0132	0.0000026	0.0074	0.0065	
RSEM-R6E-EOP	5/6/2021 15:20	ZT3103	M	C130484	2.18	1.84	0.238	0.00082	0.00074	0.191	<0.0001	<0.001	0.058	0.000017	47.3	0.0109	0.00039	0.0017	0.284	<0.0002	0.0155	14.2	0.0217	0.0000025	0.0173	0.0457	
RSEM-R6E-EOP	5/7/2021 11:20	ZT3093	M	C130477	2.33	2.24	0.179	0.0008	0.0007	0.191	<0.0001	<0.001	0.057	0.000017	48.3	0.0112	0.00032	0.00157	0.256	<0.0002	0.0153	14.1	0.0224	0.0000026	0.0176	0.0471	
RSEM-R6E-EOP	5/8/2021 12:50	ZT6586	M	C130995	2.32	2.65	0.131	0.00073	0.00064	0.171	<0.0001	<0.001	0.058	0.000011	44.6	<0.001	<0.0002	0.00147	0.151	<0.0002	0.015	12.9	0.0119	<0.0000019	0.0059	0.0023	
RSEM-R6E-EOP	5/9/2021 13:20	ZT6966	M	C131057	2.29	2.54	0.103	0.00073	0.00065	0.171	<0.0001	<0.001	0.058	<0.00001	44.9	<0.001	<0.0002	0.00117	0.115	<0.0002	0.0145	13.3	0.0102	0.0000034	0.0065	0.0031	
RSEM-R6E-EOP	5/10/2021 5:10	ZT6907	M	C131048	2.30	2.40	0.0964	0.0007	0.00063	0.166	<0.0001	<0.001	0.059	0.000011	44.7	0.0018	<0.0002	0.00114	0.103	<0.0002	0.0143	13.3	0.0088	<0.0000019	0.0074	0.0067	
RSEM-R6E-EOP	5/11/2021 10:30	ZU0196	M	C131591	2.80	2.38	0.0785	0.00072	0.0006	0.163	<0.0001	<0.001	0.059	<0.00001	48.4	<0.001	<0.0002	0.00115	0.084	<0.0002	0.0145	14.6	0.0079	<0.0000019	0.0062	0.002	
RSEM-R6E-EOP	5/11/2021 10:40	ZU0197	D	C131591	2.19	2.42	0.08	0.00073	0.00061	0.164	<0.0001	<0.001	0.06	<0.00001	46.9	<0.001	<0.0002	0.00112	0.088	<0.0002	0.0146	14.5	0.0079	<0.0000019	0.0061	0.0021	
RSEM-R6E-EOP	5/12/2021 10:50	ZU2124	M	C131927	2.06	2.45	0.0704	0.00065	0.00057	0.144	<0.0001	<0.001	0.06	<0.00001	45.0	<0.001	<0.0002	0.00102	0.08	<0.0002	0.0145	14.2	0.0077	<0.0000019	0.0058	0.0018	
RSEM-R6E-EOP	5/13/2021 10:20	ZU4935	M	C132324	2.28	1.41	0.0624	0.00067	0.00057	0.141	<0.0001	<0.001	0.064	<0.00001	43.1	<0.001	<0.0002	0.0011	0.061	<0.0002	0.0147	14.1	0.0068	<0.0000019	0.006	0.0018	
RSEM-R6E-EOP	5/13/2021 10:30	ZU4936	D	C132324	2.45	2.93	0.065	0.00065	0.00057	0.14	<0.0001	<0.001	0.064	<0.00001	44.7	<0.001	<0.0002	0.0013	0.066	<0.0002	0.0147	14.2	0.0069	<0.0000019	0.0061	0.0019	
RSEM-R6E-EOP	5/14/2021 10:00	ZU4951	M	C132327	2.77	2.26	0.0676	0.00068	0.00058	0.138	<0.0001	<0.001	0.067	<0.00001	43.1	<0.001	<0.0002	0.00119	0.06	<0.0002	0.0151	14.8	0.0067	<0.0000019	0.0064	0.0019	
RSEM-R6E-EOP	5/15/2021 15:00	ZU7901	M	C132915	2.52	2.42	0.0807	0.00063	0.00058	0.126	<0.0001	<0.001	0.066	<0.00001	37.6	<0.001	<0.0002	0.00111	0.059	<0.0002	0.0146	13.8	0.0065	0.0000023	0.0062	0.0017	
RSEM-R6E-EOP	5/16/2021 14:20	ZU7830	M	C132904	3.27	3.05	0.0758	0.00066	0.0006	0.125	<0.0001	<0.001	0.072	<0.00001	38.6	<0.001	<0.0002	0.00128	0.078	<0.0002	0.0158	14.3	0.0081	<0.0000019	0.0064	0.0018	
RSEM-R6E-EOP	5/17/2021 16:20	ZU9398	M	C133243	2.81	2.05	0.0815	0.00064	0.00059	0.118	<0.0001	<0.001	0.072	<0.00001	36.3	<0.001	<0.0002	0.0012	0.07	<0.0002	0.0156	14.5	0.0076	<0.0000019	0.0064	0.0017	
RSEM-R6E-EOP	5/18/2021 16:20	ZV2801	M	C133850	2.31	2.38	0.06	0.00067	0.00061	0.114	<0.0001	<0.001	0.073	<0.00001	38.2	<0.001	<0.0002	0.00145	0.076	<0.0002	0.0155	14.6	0.0093	<0.0000019	0.0064	0.0018	
RSEM-R6E-EOP	5/19/2021 13:30	ZV3573	M	C134016	2.27	2.66	0.0654	0.00065	0.00061	0.127	<0.0001	<0.001	0.082	0.000011	49.0	<0.001	0.00021	0.00133	0.08	<0.0002	0.0186	16.7	0.0122	<0.0000019	0.0066	0.0019	
RSEM-R6E-EOP	5/19/2021 13:40	ZV3574	D	C134016	2.83	2.64	0.0623	0.00063	0.00059	0.121	<0.0001	<0.001	0.081	<0.00001	46.8	<0.001	<0.0002	0.00132	0.084	<0.0002	0.0179	16.2	0.0113	<0.0000019	0.0064	0.0019	
RSEM-R6E-EOP	5/20/2021 12:00	ZV5698	M	C134406	2.24	2.47	0.0459	0.00065	0.00051	0.132	<0.0001	<0.001	0.092	<0.00001	59.2	<0.001	<0.0002	0.00122	0.046	<0.0002	0.0211	18.3	0.0075	<0.0000019	0.0062	0.0018	
RSEM-R6E-EOP	5/21/2021 11:20	ZV5663	M	C134400	2.54	2.30	0.0454	0.00064	0.00053	0.136	<0.0001	<0.001	0.092	<0.00001	62.5	<0.001	<0.0002	0.00125	0.048	<0.0002	0.0205	19.2	0.0076	<0.0000019	0.0064	0.0018	
RSEM-R6E-EOP	5/22/2021 11:20	ZV6993	M	C134601	2.52	2.22	0.0461	0.00062	0.00053	0.131	<0.0001	<0.001	0.094	<0.00001	60.1	<0.001	<0.0002	0.00127	0.055	<0.0002	0.0228	19.6	0.0087	<0.0000019	0.0064	0.0018	
RSEM-R6E-EOP	5/23/2021 14:40	ZV8626	M	C134923	2.71	2.55	0.0506	0.0006	0.00052	0.122	<0.0001	<0.001	0.094	<0.00001	56.0	<0.001	<0.0002	0.00121	0.05	<0.0002	0.0218	19.0	0.0089	<0.0000019	0.0062	0.0017	
RSEM-R6E-EOP	5/24/2021 12:00	ZW1260	M	C135427	1.87	2.37	0.0532	0.00057	0.00054	0.118	<0.0001	<0.001	0.088	<0.00001	52.4	<0.001	<0.0002	0.00116	0.058	<0.0002	0.021	18.8	0.0122	<0.0000019	0.006	0.0018	
RSEM-R6E-EOP	5/25/2021 9:50	ZW1242	M	C135423	2.19	2.32	0.046	0.00057	0.00055	0.122	<0.0001	<0.001	0.09	<0.00001	55.0	<0.001	<0.0002	0.0016	0.055	<0.0002	0.0215	19.5	0.0144	<0.0000019	0.0061	0.0017	
RSEM-R6E-EOP	5/26/2021 12:10	ZW4841	M	C136104	5.24	5.53	0.0402	0.00055	0.00052	0.14	<0.0001	<0.001	0.11	0.00001	101	<0.001	<0.0002	0.00104	0.05	<0.0002	0.0293	23.8	0.0182	<0.0000019	0.007	0.0021	
RSEM-R6E-EOP	5/27/2021 11:30	ZW4834	M	C136103	9.89	8.48	0.0302	0.00054	0.00041	0.142	<0.0001	<0.001	0.115	0.000011	124	<0.001	0.00034	0.00102	0.034	<0.0002	0.0292	26.2	0.0206	<0.0000019	0.0065	0.0031	
RSEM-R6E-EOP	5/28/2021 13:15	ZW4300	M	C136040	6.73	5.58	0.0319	0.00052	0.00049	0.144	<0.0001	<0.001	0.12	<0.00001	124	<0.001	0.00022	0.00097	0.039	<0.0002	0.03	26.0	0.0131	<0.0000019	0.0075	0.0028	
RSEM-R6E-EOP	5/29/2021 11:20	ZW9127	M	C136816	4.56	6.43	0.0271	0.00062	0.0005	0.141	<0.0001	<0.001	0.122	<0.00001	117	<0.001	<0.0002	0.00096	0.035	<0.0002	0.0317	25.4	0.0097	<0.0000019	0.0077	0.0025	
RSEM-R6E-EOP	5/30/2021 10:30	ZW9154	M	C136825	5.45	6.76	0.0281	0.00053	0.0005	0.132	<0.0001	<0.001	0.115	<0.00001	107	<0.001	<0.0002	0.00094	0.029	<0.0002	0.0301	24.8	0.0088	<0.0000019	0.0076	0.0024	
RSEM-R6E-EOP	5/31/2021 6:00	ZW9167	M	C136832	4.90	5.07	0.0273	0.00052	0.00048	0.132	<0.0001	<0.001	0.118	<0.00001	104	<0.001	<0.0002	0.00098	0.038	<0.0002	0.031	25.0	0.0101	<0.0000019	0.0072	0.0024	
RSEM-R6E-EOP	6/5/2021 10:40	ZY0220	M	C138844	4.10	5.41	0.0388	0.0005	0.00053	0.118	<0.0001	<0.001	0.117	<0.00001	79.0	<0.001	<0.0002	0.00094	0.045	<0.0002	0.0301	25.1	0.0123	<0.0000019	0.0066	0.0016	
RSEM-R6E-EOP	6/5/2021 10:50	ZY0221	D	C138844	3.57	4.86	0.0318	0.00052	0.0005	0.12	<0.0001	<0.001	0.119	<0.00001	80.3	<0.001	<0.0002	0.00094	0.039	<0.0002	0.03	25.1	0.0109	<0.0000019	0.0069	0.0017	
RSEM-R6E-EOP	6/6/2021 10:40	ZY0252	M	C138850	3.38	3.94	0.0269	0.0005	0.0006	0.118	<0.0001	<0.001	0.123	<0.00001	78.5	<0.001	<0.0002	0.00095	0.05	<0.0002	0.0306	24.3	0.0079	<0.0000019	0.0069	0.0021	
RSEM-R6E-EOP	6/7/2021 10:50	ZY3087	M	C139476	<5.0	1.82	0.0259	<0.0005	0.0005	0.114	<0.0001	<0.001	0.122	<0.00001	80.4	<0.001	<0.0002	0.00114	0.046	<0.0002	0.0293	24.3	0.007	<0.0000019	0.0065	0.0017	
RSEM-R6E-EOP	6/7/2021 11:00	ZY3088	D	C139476	<2.0	1.92	0.023	0.00051	0.00051	0.117	<0.0001	<0.001	0.125	<0.00001	82.3	<0.001	<0.0002	0.00113	0.041	<0.0002	0.0294	24.2	0.0067	<0.0000019	0.0067	0.0016	
RSEM-R6E-EOP	6/8/2021 11:30	ZY5038	M	C139835	3.33	2.40	0.0284	0.00051	0.00053	0.111	<0.0001	<0.001	0.123	<0.00001	77.7	<0.001	<0.0002	0.00097	0.04	<0.0002	0.0297	24.6	0.0053	0.0000023	0.0066	0.0016	
RSEM-R6E-EOP	6/9/2021 13:30	ZY6852	M	C140198	2.77	2.39	0.023	0.00053	0.00054	0.111	<0.0001	<0.001	0.123	<0.00001	76.1	<0.001	<0.0002	0.0012	0.056	<0.0002	0.0297	25.7	0.0047	0.0000021	0.0067	0.0018	
RSEM-R6E-EOP	6/9/2021 13:40	ZY6853	D	C140198	2.55	2.51	0.0236	0.00052	0.00052	0.107	<0.0001	<0.001	0.12	<0.00001	73.4	<0.001	<0.0002	0.00093	0.035	<0.0002	0.0289	24.6	0.0042	0.000002	0.0065	0.0016	
RSEM-R6E-EOP	6/10/2021 11:45	ZY8799	M	C140527	2.62	2.46	0.0194	0.00056	0.00057	0.11	<0.0001	<0.001	0.117	<0.00001	75.3	<0.001	<0.0002	0.00089	0.03	<0.0002	0.0282	24.3	0.0045	<0.0000019	0.0068	0.0016	
RSEM-R6E-EOP	6/11/2021 14:00	ZY9642	M	C140675	2.32	2.08	0.0203	0.00056	0.00055	0.11	<0.0001	<0.001	0.124	<0.00001	77.6	<0.001	<0.0002	0.00095	0.034	<0.0002	0.0302	25.8	0.0043	<0.0000019	0.0074	0.0016	
RSEM-R6E-EOP	6/11/2021 14:10	ZY9643	D	C140675	2.19	4.0	0.0196	0.00052	0.00056	0.108	<0.0001	<0.001	0.123	<0.00001	74.9	<0.001	<0.0002	0.00086	0.029	<0.0002	0.0294	24.9	0.0042	<0.0000019	0.007	0.0014	
RSEM-R6E-EOP	6/15/2021 11:20	AAB013	M	C142607	<5.0	2.76	0.0199	0.00051	0.00054	0.102	<0.0001	<0.001	0.12	<0.00001	73.6	<0.001	<0.0002	0.00105	0.032	<0.0002	0.0295	25.8	0.0057	<0.0000019	0.0066	0.0014	
RSEM-R6E-EOP	6/16/2021 12:00	AAB002	M	C142604	<5.0	2.64	0.0195	<0.0005	0.00052	0.0921	<0.0001	<0.001	0.121	<0.00001	63.5	<0.001	<0.0002	0.00093	0.029	<0.0002	0.0294	24.8	0.0068	<0.0000019	0.0066	0.0013	
RSEM-R6E-EOP	6/17/2021 11:00	AAC467	M	C142866	2.72	2.49	0.0471	0.0005	0.00051	0.107	<0.0001	<0.001	0.145	<0.00001	78.9	<0.001	<0.0002	0.00088	0.081	<0.0002	0.0312	26.0	0.0139	0.0000028	0.0073	0.0017	
RSEM-R6E-EOP	6/18/2021 12:00	AAC475	M	C142867	2.81	2.25	0.035	<0.0005	0.00048	0.102	<0.0001	<0.001	0.146	<0.00001	79.4	<0.001	<0.0002	0.00074	0.046	<0.0002	0.0305	25.7	0.0068	0.0000022	0.0076	0.0015	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	6/19/2021 11:00	AAF584	M	C143352	2.73	2.78	0.0169	<0.0005	0.00044	0.083	<0.0001	<0.001	0.133	<0.00001	70.4	0.0024	<0.0002	0.0009	0.039	<0.0002	0.0281	23.7	0.0043	0.0000024	0.0073	0.0019	
RSEM-R6E-EOP	6/20/2021 10:00	AAF489	M	C143330	2.93	2.33	0.0252	0.0005	0.00043	0.104	<0.0001	<0.001	0.149	<0.00001	74.9	<0.001	<0.0002	0.00078	0.032	<0.0002	0.0294	31.3	0.004	0.0000022	0.0082	0.0019	
RSEM-R6E-EOP	6/21/2021 5:40	AAF560	M	C143340	3.21	2.59	0.0244	0.00052	0.00042	0.101	<0.0001	<0.001	0.146	<0.00001	70.2	<0.001	<0.0002	0.0008	0.022	<0.0002	0.0289	30.4	0.0037	<0.0000019	0.008	0.0016	
RSEM-R6E-EOP	7/17/2021 15:40	ACC247	M	C151542	4.00	2.97	0.0115	<0.0005	0.00103	0.106	<0.0001	<0.001	0.157	<0.00001	61.8	<0.001	<0.0002	0.00085	0.045	<0.0002	0.0313	23.5	0.0085	<0.0000019	0.007	0.0046	
RSEM-R6E-EOP	7/18/2021 13:30	ACC415	M	C151549	4.85	2.75	0.0148	<0.0005	0.00093	0.104	<0.0001	<0.001	0.165	<0.00001	66.3	0.0015	<0.0002	0.00076	0.081	<0.0002	0.0318	23.4	0.0058	<0.0000019	0.0079	0.005	
RSEM-R6E-EOP	7/19/2021 15:15	ACF036	M	C151946	2.93	3.27	0.0112	<0.0005	0.00107	0.106	<0.0001	<0.001	0.11	<0.00001	55.3	0.001	<0.0002	0.00076	0.032	<0.0002	0.0249	22.1	0.0041	<0.0000019	0.0094	0.0023	
RSEM-R6E-EOP	7/20/2021 14:30	ACH813	M	C152456	3.54	3.44	0.0705	<0.0005	0.00054	0.114	<0.0001	<0.001	0.144	<0.00001	56.8	0.001	0.00022	0.00183	0.061	<0.0002	0.0282	26.7	0.0105	0.0000027	0.0105	0.0079	
RSEM-R6E-EOP	7/20/2021 14:40	ACH814	D	C152456	3.74	3.17	0.0668	<0.0005	0.00092	0.112	<0.0001	<0.001	0.148	<0.00001	56.8	0.0014	<0.0002	0.00181	0.057	<0.0002	0.0293	26.3	0.0093	0.0000022	0.0104	0.0025	
RSEM-R6E-EOP	7/21/2021 15:40	ACH932	M	C152481	3.60	2.85	0.0228	<0.0005	0.00092	0.0923	<0.0001	<0.001	0.182	<0.00001	60.5	0.0014	<0.0002	0.00078	0.062	<0.0002	0.0317	22.1	0.0165	<0.0000019	0.0091	0.0024	
RSEM-R6E-EOP	7/22/2021 17:15	ACL553	M	C152988	3.90	3.85	0.0744	0.00053	0.00054	0.0831	<0.0001	<0.001	0.137	0.000043	148	0.0013	0.00076	0.00126	0.108	<0.0002	0.0358	22.9	0.0655	<0.0000019	0.0061	0.0093	
RSEM-R6E-EOP	7/23/2021 11:30	ACL699	M	C153012	2.17	1.32	0.0494	<0.0005	0.00053	0.0778	<0.0001	<0.001	0.137	0.000024	135	0.0016	0.00032	0.00097	0.077	<0.0002	0.0335	21.4	0.0221	<0.0000019	0.0063	0.0078	
RSEM-R6E-EOP	7/23/2021 11:40	ACL700	D	C153012	2.40	1.66	0.0483	0.00051	0.00057	0.0775	<0.0001	<0.001	0.141	0.000015	135	0.0011	0.00028	0.00096	0.074	<0.0002	0.034	21.3	0.0215	<0.0000019	0.0063	0.0062	
RSEM-R6E-EOP	7/24/2021 14:40	ACO406	M	C153513	2.76	<0.50	0.0381	0.00059	0.00064	0.0829	<0.0001	<0.001	0.124	0.000013	125	0.0011	<0.0002	0.001	0.041	<0.0002	0.0293	24.0	0.0089	<0.0000019	0.0078	0.0036	
RSEM-R6E-EOP	7/25/2021 13:50	ACO188	M	C153467	3.75	<0.50	0.0347	<0.0005	0.00054	0.0745	<0.0001	<0.001	0.125	<0.00001	118	0.0014	0.00026	0.00103	0.044	<0.0002	0.0307	20.6	0.008	<0.0000019	0.0069	0.0042	
RSEM-R6E-EOP	7/25/2021 14:00	ACO189	D	C153467	3.85	<0.50	0.0374	<0.0005	0.0006	0.0777	<0.0001	<0.001	0.127	<0.00001	118	0.0011	<0.0002	0.00079	0.034	<0.0002	0.0306	21.3	0.0067	<0.0000019	0.0071	0.0045	
RSEM-R6E-EOP	7/26/2021 10:35	ACN520	M	C153324	0.51	<0.50	0.026	<0.0005	0.0005	0.0717	<0.0001	<0.001	0.129	<0.00001	115	0.0011	<0.0002	0.0008	0.035	<0.0002	0.0311	19.9	0.0052	<0.0000019	0.0065	0.0038	
RSEM-R6E-EOP	7/27/2021 11:00	ACT043	M	C154246	<5.0	<0.50	0.0266	0.00055	0.00063	0.0785	<0.0001	<0.001	0.155	<0.00001	114	0.0011	<0.0002	0.00088	0.024	<0.0002	0.0302	24.0	0.0049	<0.0000019	0.008	0.0017	
RSEM-R6E-EOP	7/28/2021 12:00	ACV589	M	C154699	1.54	<0.50	0.0283	0.00054	0.00063	0.0754	<0.0001	<0.001	0.129	<0.00001	105	0.0012	<0.0002	0.00095	0.029	<0.0002	0.0289	23.2	0.0056	<0.0000019	0.0079	0.0073	
RSEM-R6E-EOP	8/2/2021 5:20	ADC744	M	C155936	4.60	3.50	0.0408	<0.0005	0.00071	0.0663	<0.0001	<0.001	0.15	<0.00001	84.8	0.0014	<0.0002	0.001	0.068	<0.0002	0.0301	23.9	0.0071	<0.0000019	0.008	0.0021	
RSEM-R6E-EOP	8/5/2021 10:45	ADK133	M	C157133	3.24	3.51	0.0271	<0.0005	0.00096	0.0655	<0.0001	<0.001	0.141	0.000011	77.5	0.0013	0.00021	0.00098	0.06	<0.0002	0.0273	28.9	0.016	<0.0000019	0.0088	0.0029	
RSEM-R6E-EOP	8/5/2021 10:55	ADK134	D	C157133	3.3	3.70	0.0287	0.00053	0.00105	0.0688	<0.0001	<0.001	0.154	0.000012	82.5	0.0015	0.00023	0.0011	0.06	<0.0002	0.0284	30.5	0.0156	<0.0000019	0.0093	0.004	
RSEM-R6E-EOP	8/6/2021 11:40	ADK122	M	C157131	7.3	4.53	0.0512	<0.0005	0.00077	0.0795	<0.0001	<0.001	0.16	0.000016	111	0.0019	0.00053	0.00113	0.103	<0.0002	0.0326	23.8	0.13	<0.0000019	0.009	0.0056	
RSEM-R6E-EOP	8/7/2021 11:35	ADM457	M	C157545	7.3	4.63	0.0349	0.00056	0.0009	0.123	<0.0001	<0.001	0.167	0.000019	158	0.0025	0.0003	0.00141	0.068	<0.0002	0.0415	41.4	0.0207	<0.0000019	0.0123	0.0091	
RSEM-R6E-EOP	8/8/2021 12:20	ADN227	M	C157651	7.3	3.11	0.039	<0.0025	0.00071	0.108	<0.0005	<0.005	<0.25	<0.00005	142	<0.005	<0.001	<0.0025	0.083	<0.001	0.031	25.8	0.0161	0.0000022	0.011	0.0078	
RSEM-R6E-EOP	8/8/2021 12:30	ADN228	D	C157651	5.8	3.4	0.0401	<0.0005	0.00075	0.105	<0.0001	<0.001	0.138	<0.00001	142	0.002	0.00024	0.00106	0.082	<0.0002	0.0352	23.6	0.0149	0.0000021	0.0101	0.0072	
RSEM-R6E-EOP	8/9/2021 11:45	ADM367	M	C157523	6.4	3.88	0.0444	<0.0005	0.00075	0.117	<0.0001	<0.001	0.143	0.000031	133	0.0031	0.00025	0.00122	0.07	<0.0002	0.0335	36.5	0.0104	0.0000019	0.0101	0.0084	
RSEM-R6E-EOP	8/10/2021 10:40	ADP899	M	C158211	3.27	3.04	0.0292	<0.0005	0.00067	0.104	<0.0001	<0.001	0.124	<0.00001	127	0.0019	<0.0002	0.00102	0.051	<0.0002	0.03	22.9	0.0058	<0.0000019	0.0095	0.0062	
RSEM-R6E-EOP	8/11/2021 12:30	ADR988	M	C158615	3.70	3.32	0.0271	<0.0005	0.00071	0.107	<0.0001	<0.001	0.124	<0.00001	121	0.002	<0.0002	0.00094	0.044	<0.0002	0.0292	23.6	0.0036	<0.0000019	0.0101	0.0057	
RSEM-R6E-EOP	8/12/2021 11:30	ADU538	M	C159104	6.7	2.54	0.0229	<0.0005	0.00062	0.0968	<0.0001	<0.001	0.117	<0.00001	114	0.0015	<0.0002	0.00093	0.035	<0.0002	0.0276	21.4	0.0031	<0.0000019	0.009	0.0048	
RSEM-R6E-EOP	8/13/2021 10:40	ADU545	M	C159105	7.2	2.81	0.0223	<0.0005	0.00067	0.107	<0.0001	<0.001	0.12	<0.00001	103	0.0021	<0.0002	0.00105	0.032	<0.0002	0.0277	26.6	0.0035	<0.0000019	0.0094	0.0055	
RSEM-R6E-EOP	8/14/2021 11:00	ADW200	M	C159435	2.76	2.80	0.0329	<0.0005	0.00066	0.0997	<0.0001	<0.001	0.117	<0.00001	90.1	0.0025	<0.0002	0.00108	0.044	<0.0002	0.0258	25.2	0.0065	<0.0000019	0.0088	0.0042	
RSEM-R6E-EOP	8/15/2021 11:20	ADW427	M	C159489	2.48	3.00	0.032	<0.0005	0.00074	0.1	<0.0001	<0.001	0.118	<0.00001	89.9	0.0018	<0.0002	0.00111	0.041	<0.0002	0.0246	26.7	0.0051	<0.0000019	0.009	0.0036	
RSEM-R6E-EOP	8/16/2021 11:20	ADY262	M	C159861	3.19	2.78	0.0254	<0.0005	0.00073	0.0993	<0.0001	<0.001	0.117	<0.00001	82.8	0.0015	<0.0002	0.00098	0.046	<0.0002	0.0222	23.9	0.0106	<0.0000019	0.0086	0.003	
RSEM-R6E-EOP	8/17/2021 11:30	AED545	M	C160795	2.54	2.37	0.0289	<0.0005	0.00073	0.0963	<0.0001	<0.001	0.104	<0.00001	75.5	0.0014	<0.0002	0.00098	0.058	<0.0002	0.0204	24.3	0.0101	<0.0000019	0.0077	0.0027	
RSEM-R6E-EOP	8/18/2021 11:00	AED516	M	C160793	2.50	2.29	0.0294	<0.0005	0.00067	0.0984	<0.0001	<0.001	0.123	<0.00001	71.2	0.0011	<0.0002	0.00099	0.048	<0.0002	0.0201	23.7	0.005	<0.0000019	0.007	0.0022	
RSEM-R6E-EOP	8/19/2021 13:40	AEF597	M	C161077	2.73	1.84	0.0281	<0.0005	0.00059	0.0896	<0.0001	<0.001	0.137	<0.00001	58.7	<0.001	<0.0002	0.00178	0.039	<0.0002	0.0182	20.8	0.0054	<0.0000019	0.0061	0.0015	
RSEM-R6E-EOP	8/20/2021 10:00	AEF522	M	C161059	1.88	2.79	0.0223	<0.0005	0.00063	0.0983	<0.0001	<0.001	0.114	<0.00001	67.3	0.001	<0.0002	0.0009	0.043	<0.0002	0.0193	23.7	0.0063	<0.0000019	0.0066	0.002	
RSEM-R6E-EOP	8/21/2021 10:40	AEI348	M	C161420	2.32	2.08	0.0242	<0.0005	0.00051	0.089	<0.0001	<0.001	0.088	<0.00001	57.4	<0.001	<0.0002	0.00086	0.038	<0.0002	0.0171	19.0	0.0044	<0.0000019	0.0057	0.0025	
RSEM-R6E-EOP	8/22/2021 12:00	AEI410	M	C161433	3.11	2.49	0.084	<0.0005	0.00047	0.109	<0.0001	<0.001	0.088	0.00008	164	<0.001	0.00198	0.00145	0.101	<0.0002	0.036	27.9	0.147	<0.0000019	0.0041	0.0152	
RSEM-R6E-EOP	8/23/2021 11:00	AEL590	M	C161925	2.74	2.18	0.0827	<0.0005	0.00043	0.112	<0.0001	<0.001	0.099	0.000058	151	<0.001	0.00183	0.00265	0.058	<0.0002	0.0346	27.8	0.0804	<0.0000019	0.0056	0.0159	
RSEM-R6E-EOP	8/24/2021 16:55	AEN129	M	C162291	3.14	1.93	0.0687	<0.0005	0.00043	0.113	<0.0001	<0.001	0.121	0.000068	146	<0.001	0.00226	0.00123	0.059	<0.0002	0.0371	28.1	0.056	<0.0000019	0.0056	0.0198	
RSEM-R6E-EOP	8/25/2021 16:35	AEP240	M	C162703	1.57	2.05	0.0698	<0.0005	0.00048	0.11	<0.0001	<0.001	0.063	0.000044	133	<0.001	0.00157	0.00118	0.035	<0.0002	0.0349	25.1	0.0363	<0.0000019	0.0054	0.0166	
RSEM-R6E-EOP	8/26/2021 10:10	AER552	M	C163145	1.39	1.87	0.0689	<0.0005	0.0004	0.116	<0.0001	<0.001	0.079	0.000042	130	0.0011	0.00121	0.0013	0.031	<0.0002	0.0368	26.4	0.0294	<0.0000019	0.0056	0.0162	
RSEM-R6E-EOP	8/26/2021 10:20	AER553	D	C163145	1.95	1.49	0.0621	<0.0005	0.0005	0.113	<0.0001	<0.001	0.083	0.000038	128	<0.001	0.00121	0.00123	0.029	<0.0002	0.036	26.5	0.029	<0.0000019	0.0055	0.016	
RSEM-R6E-EOP	8/27/2021 10:15	AER546	M	C163144	2.31	1.76	0.0594	<0.0005	0.00047	0.12	<0.0001	<0.001	0.064	0.000025	120	0.0017	0.00069	0.00113	0.031	<0.0002	0.0319	24.7	0.0164	<0.0000019	0.0064	0.0126	
RSEM-R6E-EOP	8/28/2021 10:50	AEV122	M	C163811	2.26	0.55	0.0625	<0.0005	0.00033	0.108	<0.0001	<0.001	0.095	0.000026	111	0.0019	0.00046	0.00101	0.032	<0.0002	0.0281	22.5	0.0133	<0.0000019	0.0062	0.0099	
RSEM-R6E-EOP	8/28/2021 11:00	AEV123	D	C163811	2.06	<0.50	0.0583	<0.0005	0.00031	0.104	<0.0001	<0.001	0.094	0.000013	108	0.0018	0.00042	0.00097	0.032	<0.0002	0.0275	21.5	0.0127	<0.0000019	0.006	0.0095	
RSEM-R6E-EOP	8/29/2021 9:55	AEV010	M	C163786	2.13	2.13	0.0653	<0.0005	0.00043	0.112	<0.0001	<0.001	0.081	0.000017	101	0.0021	0.0003	0.00119	0.041	<0.0002	0.0292	24.3	0.0086	<0.0000019	0.0069	0.0092	
RSEM-R6E-EOP	8/30/2021 9:55	AEX827	M	C164176	1.92	1.73	0.0557	<0.0005	0.00035	0.102	<0.0001	<0.001	0.093	<0.00001	100	0.0016	0.00021	0.00087	0.04	<0.0002	0.0252	21.2	0.006	<0.0000019	0.0065	0.0071	
RSEM-R6E-EOP	8/30/2021 10:05	AEX828	D	C164176	2.25	1.22	0.0583	<0.0005	0.00035	0.103	<0.0001	<0.001	0.093	<0.00001	99.8	0.0018	0.00022	0.00091	0.04	<0.0002	0.0248	21.7	0.0062	<0.0000019	0.0067	0.0073	
RSEM-R6E-EOP	8/31/2021 16:35	AFA831	M	C164798	1.86	0.75	0.0613	<0.0005	0.00036	0.101	<0.0001	<0.001	0.097	<0.00001	91.8	0.0017	0.00023	0.00093	0.043	<0.0002	0.0242	21.9	0.0054	<0.0000019	0.0071	0.0067	
RSEM-R6E-EOP	9/1/2021 15:30	AFC990	M	C165103	1.80	1.96	0.0639	<0.0005	0.00034	0.0968	<0.0001	<0.001	0.091	<0.00001	92.2	0.0017	<0.0002	0.00096	0.04	<0.0002	0.0216	21.5	0.004	<0.0000019	0.0073	0.006	
RSEM-R6E-EOP	9/1/2021 15:40	AFC991	D	C165103	1.80	1.96	0.0596	<0.0005	0.00036	0.101	<0.0001	<0.001	0.094	<0.00001	91.8	0.0017	<0.0002	0.00097	0.041	<0.0002	0.022	21.8	0.0043	<0.0000019	0.0076	0.0063	
RSEM-R6E-EOP	9/2/2021 11:10	AFF606	M	C165563	1.42	0.65	0.0535	<0.0005	0.00034	0.0937	<0.0001	<0.001	0.092	<0.00001	89.2	0.0017	<0.0002	0.0009	0.038	<0.0002	0.0219	21.0	0.0041	<0.0000019	0.0069	0.0055	
RSEM-R6E-EOP	9/3/2021 11:05	AFF864	M	C165588	1.49	1.72	0.0735	<0.0005	0.00033	0.0962	<0.0001	<0.001	0.089	<0.00001	82.2	0.0017	<0.0002	0.00121	0.039	<0.0002	0.0222	21.3	0.0041	<0.0000019	0.0071	0.0053	
RSEM-R6E-EOP	9/3/2021 11:15	AFF865	D	C165588	1.63	1.86	0.0726	<0.0005	0.00032	0.0951	<0.0001	<0.001	0.088	<0.00001	80.4	0.002	<0.0002	0.00114	0.039	<0.0002	0.0218	21.0	0.004	<0.0000019	0.0072	0.0052	
RSEM-R6E-EOP	9/4/2021 16:10	AFH288	M	C165785	1.90	1.92	0.0772	<0.0005	0.00041	0.107	<0.0001	<0.001	0.079	0.000011	76.4	0.0015	0.00025	0.00114	0.056	<0.0002	0.0216	22.9	0.0086	<0.0000019	0.007	0.0058	
RSEM-R6E-EOP	9/5/2021 13:50	AFI819	M	C166081	2.04	1.94	0.0836	<0.0005	0.00034	0.0981	<0.0001	<0.001	0.084	<0.00001	75.1	0.0016	0.00022	0.00128	0.059	<0.0002	0.0196	20.6	0.0064	<0.0000019	0.0063	0.0048	
RSEM-R6E-EOP	9/5/2021 14:00	AFI820	D	C166081	2.12	1.95	0.0899	<0.0005	0.00034	0.0991	<0.0001	<0.001	0.083	<0.00001	73.9	0.0015	0.00022	0.0012	0.061	<0.0002	0.019	20.9	0.0063	<0.0000019	0.0062	0.0048	
RSEM-R6E-EOP	9/6/2021 12:15	AFI718	M	C166063	2.07	1.93	0.0713	<0.0005	0.00037	0.111	<0.0001	<0.001	0.07	<0.00001	70.1	0.0019	<0.0002	0.00096	0.055	<0.0002	0.0204	21.6	0.0051	<0.0000019	0.0066	0.0046	
RSEM-R6E-EOP	9/7/2021 11:20	AFL344	M	C166557	2.03	1.49	0.0654	<0.0005	0.00046	0.11	<0.0001	<0.001	0.067	<0.00001	69.3	0.0019	<0.0002	0.00093	0.048	<0.0002	0.0197	21.9	0.0054	<0.0000019	0.0067	0.0043	
RSEM-R6E-EOP	9/8/2021 10:50	AFO056	M	C167059	2.08	1.79	0.0782	<0.0005	0.00037	0.109	<0.0001	<0.001	0.078	<0.00001	68.5	0.0017	<0.0002	0.00102	0.054	<0.0002	0.018	22.9	0.0045	<0.0000019	0.006	0.0047	
RSEM-R6E-EOP	9/9/2021 11:20	AFQ844	M	C167445	1.98	1.89	0.0682	<0.0005	0.0004	0.109	<0.0001	<0.001	0.074	<0.00001	70.0	0.0014	0.00021	0.00102	0.064	<0.0002	0.0183	24.1	0.0072	<0.0000019	0.0054	0.0048	
RSEM-R6E-EOP	9/10/2021 9:50	AFQ880	M	C167449	2.22	1.25	0.0589	<0.0005	0.0004	0.108	<0.0001	<0.001	0.074	<0.00001	68.7	0.0015	<0.0002	0.00122	0.045	<0.0002	0.0194	24.7	0.007	<0.0000019	0.0056	0.0048	
RSEM-R6E-EOP	9/11/2021 12:00	AFV352	M	C168029	1.92	1.84	0.0599	<0.0005	0.00041	0.102	<0.0001	<0.001	0.069	<0.00001	65.6	0.0014	<0.0002	0.00104	0.051	<0.0002	0.02	24.7	0.0056	<0.0000019	0.0053	0.0042	
RSEM-R6E-EOP	9/12/2021 13:00	AFV416	M	C168037	1.96	1.91	0.0517	<0.0005	0.00048	0.0965	<0.0001	<0.001	0.069	<0.00001	63.2	0.0011	0.00023	0.00093	0.044	<0.0002	0.0203	24.4	0.0163	<0.0000019	0.005	0.0042	
RSEM-R6E-EOP	9/13/2021 5:00	AFV243	M	C168020	1.72	2.02	0.0635	<0.0005	0.00043	0.101	<0.0001	<0.001	0.075	<0.00001	65.7	0.0011	<0.0002	0.00104	0.054	<0.0002	0.0214	25.8	0.0084	<0.0000019	0.0051	0.0056	
RSEM-R6E-EOP	9/14/2021 16:30	AGB015	M	C169017	2.20	1.98	0.0461	<0.0005	0.00042	0.0935	<0.0001	<0.001	0.081	<0.00001	60.4	<0.001	<0.0002	0.00098	0.046	<0.0002	0.022	24.8	0.0042	<0.0000019	0.005	0.004	
RSEM-R6E-EOP	9/15/2021 10:20	AGD164	M	C169361	2.21	2.16	0.0519	<0.0005	0.00047	0.0963	<0.0001	<0.001	0.088	<0.00001	63.6	<0.001	<0.0002	0.00104	0.059	<0.0002	0.0221	25.3	0.0073	<0.0000019	0.0047	0.0043	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	9/16/2021 12:35	AGG327	M	C169805	2.31	2.53	0.0587	<0.0005	0.00043	0.0967	<0.0001	<0.001	0.069	<0.00001	65.4	<0.001	<0.0002	0.00097	0.057	<0.0002	0.0236	27.8	0.0052	<0.0000019	0.0045	0.0058	
RSEM-R6E-EOP	9/16/2021 12:45	AGG328	D	C169805	1.76	1.80	0.0524	<0.0005	0.00047	0.0945	<0.0001	<0.001	0.075	<0.00001	63.7	<0.001	<0.0002	0.00085	0.051	<0.0002	0.0235	26.8	0.0048	<0.0000019	0.0044	0.004	
RSEM-R6E-EOP	9/17/2021 10:40	AGG307	M	C169799	2.19	2.10	0.0485	<0.0005	0.00049	0.0971	<0.0001	<0.001	0.072	<0.00001	65.1	<0.001	<0.0002	0.00083	0.046	<0.0002	0.0237	26.7	0.0028	<0.0000019	0.0043	0.0041	
RSEM-R6E-EOP	9/18/2021 12:00	AGJ632	M	C170329	2.76	1.81	0.0501	<0.0005	0.00043	0.0969	<0.0001	<0.001	0.095	<0.00001	70.4	<0.001	<0.0002	0.00099	0.055	<0.0002	0.0247	28.1	0.0044	<0.0000019	0.0043	0.0041	
RSEM-R6E-EOP	9/18/2021 12:10	AGJ633	D	C170329	2.34	1.65	0.0535	<0.0005	0.00042	0.0974	<0.0001	<0.001	0.106	<0.00001	70.4	<0.001	<0.0002	0.001	0.054	<0.0002	0.0255	28.9	0.0044	<0.0000019	0.0043	0.0043	
RSEM-R6E-EOP	9/19/2021 11:10	AGJ664	M	C170331	2.24	2.17	0.0531	<0.0005	0.0004	0.102	<0.0001	<0.001	0.087	<0.00001	71.9	<0.001	<0.0002	0.00089	0.061	<0.0002	0.0233	27.2	0.0039	<0.0000019	0.0046	0.0043	
RSEM-R6E-EOP	9/20/2021 10:20	AGM219	M	C170680	2.47	2.35	0.0538	<0.0005	0.00042	0.103	<0.0001	<0.001	0.105	<0.00001	73.0	<0.001	<0.0002	0.00107	0.057	<0.0002	0.0248	28.7	0.0042	<0.0000019	0.0047	0.0045	
RSEM-R6E-EOP	9/20/2021 10:30	AGM220	D	C170680	1.43	2.03	0.0511	<0.0005	0.00042	0.103	<0.0001	<0.001	0.101	<0.00001	73.3	<0.001	<0.0002	0.00097	0.054	<0.0002	0.0249	28.8	0.0042	<0.0000019	0.0048	0.0047	
RSEM-R6E-EOP	9/21/2021 11:10	AGO663	M	C171134	2.38	1.92	0.0661	<0.0005	0.00044	0.109	<0.0001	<0.001	0.092	0.000017	73.1	0.0016	0.00022	0.0014	0.088	<0.0002	0.022	30.0	0.0069	<0.0000019	0.0049	0.0082	
RSEM-R6E-EOP	9/22/2021 10:45	AGR063	M	C171568	2.13	1.94	0.0672	<0.0005	0.00044	0.109	<0.0001	<0.001	0.082	<0.00001	72.1	<0.001	<0.0002	0.00122	0.074	<0.0002	0.0217	29.1	0.0046	<0.0000019	0.0052	0.0063	
RSEM-R6E-EOP	9/22/2021 10:55	AGR064	D	C171568	2.05	1.93	0.145	<0.0005	0.00038	0.115	<0.0001	<0.001	0.084	0.000026	74.2	0.0014	0.00055	0.00148	0.279	<0.0002	0.022	28.0	0.019	<0.0000019	0.0051	0.0055	
RSEM-R6E-EOP	9/23/2021 16:25	AGT564	M	C171954	1.60	2.04	0.0729	<0.0005	0.00045	0.109	<0.0001	<0.001	0.078	<0.00001	68.2	0.0019	<0.0002	0.00107	0.078	<0.0002	0.0206	25.2	0.0053	<0.0000019	0.0057	0.0043	
RSEM-R6E-EOP	9/24/2021 12:45	AGV849	M	C172263	1.76	2.18	0.0788	<0.0005	0.00043	0.116	<0.0001	<0.001	0.074	<0.00001	74.0	0.002	<0.0002	0.00088	0.087	<0.0002	0.0194	23.4	0.0039	<0.0000019	0.0068	0.0037	
RSEM-R6E-EOP	9/25/2021 15:45	AGX495	M	C172580	1.84	1.66	0.0843	<0.0005	0.00057	0.115	<0.0001	<0.001	0.073	0.000013	71.6	0.0027	<0.0002	0.00111	0.114	<0.0002	0.0195	24.8	0.0072	<0.0000019	0.0065	0.0043	
RSEM-R6E-EOP	9/26/2021 15:10	AGX363	M	C172552	1.36	1.61	0.094	<0.0005	0.0005	0.119	<0.0001	<0.001	0.061	<0.00001	70.2	0.0021	0.00021	0.00108	0.139	<0.0002	0.0169	23.1	0.0095	<0.0000019	0.0056	0.0042	
RSEM-R6E-EOP	9/26/2021 15:20	AGX364	D	C172552	1.58	1.96	0.0927	<0.0005	0.00047	0.117	<0.0001	<0.001	0.065	<0.00001	67.3	0.002	<0.0002	0.00108	0.133	<0.0002	0.0162	22.1	0.0091	<0.0000019	0.0054	0.004	
RSEM-R6E-EOP	9/27/2021 11:30	AGZ867	M	C172958	2.02	2.80	0.116	<0.0005	0.0005	0.127	<0.0001	<0.001	0.073	0.000026	74.3	0.0026	0.00028	0.0013	0.165	<0.0002	0.0163	24.1	0.0139	<0.0000019	0.0054	0.0044	
RSEM-R6E-EOP	9/28/2021 11:00	AHC015	M	C173431	2.90	2.87	0.0914	<0.0005	0.00045	0.13	<0.0001	<0.001	0.062	0.000021	82.1	0.0024	0.00026	0.00121	0.126	<0.0002	0.0166	23.5	0.0145	<0.0000019	0.0059	0.0046	
RSEM-R6E-EOP	9/29/2021 12:00	AHF732	M	C174181	2.11	1.30	0.0835	<0.0005	0.00046	0.143	<0.0001	<0.001	0.069	0.000015	77.2	0.0019	<0.0002	0.00096	0.09	<0.0002	0.0141	22.8	0.0083	<0.0000019	0.0058	0.0038	
RSEM-R6E-EOP	9/30/2021 11:00	AHF782	M	C174188	1.97	1.61	0.0753	<0.0005	0.00039	0.136	<0.0001	<0.001	0.056	0.000011	78.7	0.0014	<0.0002	0.001	0.076	<0.0002	0.0135	22.9	0.005	0.0000021	0.0049	0.0038	
RSEM-R6E-EOP	10/1/2021 12:00	AHF785	M	C174189	1.98	1.57	0.0694	<0.0005	0.00038	0.134	<0.0001	<0.001	0.062	<0.00001	75.7	0.0011	<0.0002	0.00083	0.07	<0.0002	0.0139	23.0	0.0041	<0.0000019	0.0045	0.0034	
RSEM-R6E-EOP	10/2/2021 10:30	AHI562	M	C174687	1.83	2.10	0.0692	<0.0005	0.00038	0.141	<0.0001	<0.001	0.074	<0.00001	73.9	0.0011	<0.0002	0.00085	0.062	<0.0002	0.0147	24.2	0.0033	<0.0000019	0.0045	0.0034	
RSEM-R6E-EOP	10/3/2021 12:00	AHI566	M	C174689	1.30	2.03	0.0615	<0.0005	0.00034	0.134	<0.0001	<0.001	0.053	<0.00001	72.5	<0.001	<0.0002	0.00079	0.067	<0.0002	0.0131	22.8	0.0031	<0.0000019	0.0043	0.0033	
RSEM-R6E-EOP	10/4/2021 8:00	AHI553	M	C174685	1.90	2.01	0.0638	<0.0005	0.00038	0.138	<0.0001	<0.001	0.068	<0.00001	74.2	<0.001	<0.0002	0.0008	0.069	<0.0002	0.0127	22.9	0.0028	0.0000019	0.0044	0.0032	
RSEM-R6E-EOP	10/5/2021 14:20	AHO714	M	C175650	2.30	2.88	0.0541	<0.0005	0.00059	0.152	<0.0001	<0.001	0.096	0.000013	76.5	<0.001	<0.0002	0.00106	0.092	<0.0002	0.0174	22.1	0.004	0.0000023	0.0239	0.005	
RSEM-R6E-EOP	10/5/2021 14:30	AHO715	D	C175650	2.00	2.79	0.0519	<0.0005	0.00025	0.147	<0.0001	<0.001	0.052	0.000017	78.8	<0.001	<0.0002	0.00105	0.089	<0.0002	0.0145	22.6	0.004	0.0000024	0.0047	0.0042	
RSEM-R6E-EOP	10/6/2021 11:20	AHR784	M	C176098	1.92	2.15	0.0687	<0.0005	0.00024	0.148	<0.0001	<0.001	<0.05	<0.00001	84.7	0.0014	<0.0002	0.00116	0.129	<0.0002	0.0108	18.2	0.0042	<0.0000019	0.0045	0.0033	
RSEM-R6E-EOP	10/7/2021 17:10	AHU809	M	C176559	1.68	1.75	0.0583	<0.0005	0.00025	0.151	<0.0001	<0.001	<0.05	<0.00001	83.1	0.0016	<0.0002	0.0009	0.099	<0.0002	0.0104	17.9	0.0044	<0.0000019	0.0048	0.0048	
RSEM-R6E-EOP	10/7/2021 17:20	AHU810	D	C176559	1.87	2.23	0.0632	<0.0005	0.00029	0.138	<0.0001	<0.001	0.058	0.00001	80.4	0.0013	<0.0002	0.0009	0.092	<0.0002	0.0134	20.4	0.0046	<0.0000019	0.0044	0.0034	
RSEM-R6E-EOP	10/8/2021 10:45	AHU797	M	C176557	2.13	1.67	0.0561	<0.0005	0.00024	0.149	<0.0001	<0.001	<0.05	<0.00001	86.3	0.0017	<0.0002	0.00087	0.092	<0.0002	0.0114	17.1	0.0044	<0.0000019	0.0049	0.0032	
RSEM-R6E-EOP	10/9/2021 11:40	AHX004	M	C176838	1.76	1.93	0.086	<0.0005	0.00033	0.15	<0.0001	<0.001	0.051	<0.00001	80.8	0.0015	<0.0002	0.00084	0.112	<0.0002	0.0127	20.9	0.0046	<0.0000019	0.0051	0.0034	
RSEM-R6E-EOP	10/9/2021 11:50	AHX005	D	C176838	1.68	2.17	0.0801	<0.0005	0.00031	0.144	<0.0001	<0.001	0.05	<0.00001	75.6	0.0013	<0.0002	0.00076	0.098	<0.0002	0.0123	19.8	0.0043	<0.0000019	0.005	0.0032	
RSEM-R6E-EOP	10/10/2021 12:40	AHX000	M	C176837	3.02	2.70	0.063	<0.0005	0.00026	0.141	<0.0001	<0.001	<0.05	0.000011	73.1	0.0017	<0.0002	0.00087	0.088	<0.0002	0.012	19.6	0.004	<0.0000019	0.0046	0.0032	
RSEM-R6E-EOP	10/11/2021 14:20	AHY659	M	C177084	1.79	1.39	0.0617	<0.0005	0.00025	0.148	<0.0001	<0.001	<0.05	0.000018	79.6	0.0024	<0.0002	0.0009	0.1	<0.0002	0.0089	16.9	0.0039	0.0000025	0.0049	0.0033	
RSEM-R6E-EOP	10/11/2021 14:30	AHY660	D	C177084	1.88	1.50	0.0581	<0.0005	0.00024	0.147	<0.0001	<0.001	<0.05	<0.00001	81.2	0.0021	<0.0002	0.00085	0.093	<0.0002	0.01	17.3	0.0036	0.0002	0.0049	0.0031	
RSEM-R6E-EOP	10/12/2021 15:50	AIB243	M	C177600	1.80	2.53	0.0613	<0.0005	0.00026	0.15	<0.0001	<0.001	0.059	<0.00001	74.7	0.0023	<0.0002	0.00088	0.099	<0.0002	0.0132	19.8	0.0035	<0.0000019	0.0048	0.0033	
RSEM-R6E-EOP	10/13/2021 11:30	AIE373	M	C178189	2.47	1.76	0.0564	<0.0005	0.00025	0.139	<0.0001	<0.001	<0.05	<0.00001	73.2	0.0019	<0.0002	0.00079	0.088	<0.0002	0.0108	17.6	0.0036	<0.0000019	0.0041	0.0034	
RSEM-R6E-EOP	10/13/2021 11:40	AIE374	D	C178189	2.09	1.93	0.0601	<0.0005	0.00022	0.137	<0.0001	<0.001	<0.05	<0.00001	71.7	0.0019	<0.0002	0.00074	0.084	<0.0002	0.0107	16.2	0.0034	<0.0000019	0.0039	0.0033	
RSEM-R6E-EOP	10/14/2021 10:40	AIG808	M	C178651	2.17	1.54	0.0589	<0.0005	0.00025	0.137	<0.0001	<0.001	<0.05	0.000013	69.4	0.0015	<0.0002	0.00075	0.087	<0.0002	0.0099	16.8	0.0034	<0.0000019	0.0036	0.0032	
RSEM-R6E-EOP	10/15/2021 11:00	AII740	M	C178993	2.05	1.92	0.0784	<0.0005	0.00029	0.145	<0.0001	<0.001	<0.05	<0.00001	73.7	0.0014	<0.0002	0.0008	0.107	<0.0002	0.011	18.1	0.0037	<0.0000019	0.0038	0.0032	
RSEM-R6E-EOP	10/15/2021 11:10	AII741	D	C178993	2.08	2.15	0.0764	<0.0005	0.00032	0.149	<0.0001	<0.001	<0.05	<0.00001	74.3	0.0014	<0.0002	0.00082	0.114	<0.0002	0.0111	18.2	0.0038	<0.0000019	0.004	0.0032	
RSEM-R6E-EOP	10/16/2021 14:20	AIL330	M	C179338	1.83	1.74	0.0697	<0.0005	0.00024	0.138	<0.0001	<0.001	<0.05	<0.00001	68.2	0.001	<0.0002	0.0007	0.099	<0.0002	0.0101	16.1	0.0037	<0.0000019	0.0028	0.003	
RSEM-R6E-EOP	10/17/2021 14:10	AIL266	M	C179325	1.70	1.78	0.0616	<0.0005	0.00024	0.132	<0.0001	<0.001	<0.05	0.000011	68.1	<0.001	<0.0002	0.00063	0.103	<0.0002	0.0096	16.2	0.0036	<0.0000019	0.0023	0.0028	
RSEM-R6E-EOP	10/17/2021 14:20	AIL267	D	C179325	1.54	2.16	0.0641	<0.0005	0.00023	0.136	<0.0001	<0.001	<0.05	<0.00001	68.9	<0.001	<0.0002	0.00072	0.105	<0.0002	0.0096	16.6	0.0038	<0.0000019	0.0024	0.0029	
RSEM-R6E-EOP	10/18/2021 9:55	AIL342	M	C179344	1.45	1.58	0.0749	<0.0005	0.00022	0.138	<0.0001	<0.001	<0.05	<0.00001	69.4	<0.001	<0.0002	0.00069	0.101	<0.0002	0.01	16.5	0.0034	<0.0000019	0.0025	0.0029	
RSEM-R6E-EOP	10/19/2021 12:00	AIR751	M	C180384	2.17	1.93	0.058	<0.0005	0.00026	0.145	<0.0001	<0.001	<0.05	<0.00001	72.3	<0.001	<0.0002	0.00061	0.07	<0.0002	0.0108	17.9	0.0023	<0.0000019	0.0029	0.0025	
RSEM-R6E-EOP	10/20/2021 12:00	AIT534	M	C180689	2.28	1.70	0.0569	<0.0005	0.00026	0.14	<0.0001	<0.001	<0.05	<0.00001	66.2	<0.001	<0.0002	0.00058	0.062	<0.0002	0.0105	18.5	0.0021	<0.0000019	0.0027	0.0026	
RSEM-R6E-EOP	10/21/2021 12:00	AIW012	M	C181069	1.55	1.64	0.053	<0.0005	0.00022	0.145	<0.0001	<0.001	<0.05	<0.00001	68.6	<0.001	<0.0002	0.00074	0.06	<0.0002	0.0108	18.7	0.0022	<0.0000019	0.0028	0.0028	
RSEM-R6E-EOP	10/22/2021 10:00	AIW017	M	C181072	1.71	1.44	0.0501	<0.0005	0.00021	0.138	<0.0001	<0.001	<0.05	<0.00001	67.5	<0.001	<0.0002	0.00073	0.055	<0.0002	0.011	18.4	0.0022	0.0000025	0.0027	0.0027	
RSEM-R6E-EOP	10/23/2021 10:30	AIZ371	M	C181550	1.78	1.68	0.0531	<0.0005	0.00023	0.134	<0.0001	<0.001	<0.05	<0.00001	66.1	<0.001	<0.0002	0.00063	0.06	<0.0002	0.0117	18.1	0.0025	<0.0000019	0.0028	0.0026	
RSEM-R6E-EOP	10/24/2021 11:00	AIZ351	M	C181544	1.30	1.58	0.051	<0.0005	0.0002	0.128	<0.0001	<0.001	<0.05	<0.00001	65.5	<0.001	<0.0002	0.00067	0.069	<0.0002	0.0123	19.0	0.0041	<0.0000019	0.0028	0.0027	
RSEM-R6E-EOP	10/25/2021 5:30	AIZ358	M	C181547	2.32	1.60	0.074	<0.0005	0.00028	0.125	<0.0001	<0.001	0.059	<0.00001	70.6	<0.001	<0.0002	0.00066	0.101	<0.0002	0.0158	22.3	0.0116	<0.0000019	0.0031	0.0032	
RSEM-R6E-EOP	10/26/2021 10:20	AJF136	M	C182473	1.49	1.38	0.119	<0.0005	0.00028	0.105	<0.0001	<0.001	0.066	<0.00001	67.5	<0.001	<0.0002	0.00073	0.08	<0.0002	0.0193	24.4	0.0056	<0.0000019	0.003	0.0046	
RSEM-R6E-EOP	10/26/2021 10:30	AJF137	D	C182473	2.46	1.34	0.0764	<0.0005	0.0003	0.108	<0.0001	<0.001	0.068	<0.00001	68.1	<0.001	<0.0002	0.00104	0.11	<0.0002	0.0201	25.0	0.0075	<0.0000019	0.0031	0.0033	
RSEM-R6E-EOP	10/27/2021 14:30	AJH724	M	C182990	1.47	1.47	0.05	<0.0005	0.00027	0.0987	<0.0001	<0.001	0.063	<0.00001	65.3	<0.001	<0.0002	0.00062	0.067	<0.0002	0.0186	24.9	0.0038	<0.0000019	0.003	0.0028	
RSEM-R6E-EOP	10/28/2021 15:30	AJL907	M	C183658	2.53	1.34	0.0489	<0.0005	0.00027	0.0953	<0.0001	<0.001	0.067	<0.00001	64.7	<0.001	<0.0002	0.00065	0.053	<0.0002	0.0196	25.9	0.0027	<0.0000019	0.0032	0.0028	
RSEM-R6E-EOP	10/28/2021 15:40	AJL908	D	C183658	1.79	1.34	0.0506	<0.0005	0.00025	0.094	<0.0001	<0.001	0.067	<0.00001	64.5	<0.001	<0.0002	0.00061	0.057	<0.0002	0.0203	25.5	0.0026	<0.0000019	0.0032	0.0027	
RSEM-R6E-EOP	10/29/2021 11:10	AJL060	M	C183557	1.28	1.43	0.0512	<0.0005	0.00025	0.0943	<0.0001	<0.001	0.067	<0.00001	66.8	<0.001	<0.0002	0.00062	0.065	<0.0002	0.0205	26.3	0.0029	<0.0000019	0.0031	0.0028	
RSEM-R6E-EOP	10/30/2021 11:50	AJO162	M	C184013	1.65	1.64	0.0682	<0.0005	0.00032	0.0934	<0.0001	<0.001	0.075	<0.00001	69.6	<0.001	<0.0002	0.00063	0.1	<0.0002	0.019	25.9	0.0042	<0.0000019	0.0034	0.0029	
RSEM-R6E-EOP	10/30/2021 12:00	AJO163	D	C184013	1.84	1.73	0.0663	<0.0005	0.00031	0.0927	<0.0001	<0.001	0.074	<0.00001	66.3	<0.001	<0.0002	0.00062	0.084	0.00022	0.0192	25.9	0.004	<0.0000019	0.0033	0.0027	
RSEM-R6E-EOP	10/31/2021 11:40	AJO160	M	C184012	1.75	1.55	0.0463	<0.0005	0.00027	0.0947	<0.0001	<0.001	0.069	<0.00001	66.5	<0.001	<0.0002	0.00057	0.073	<0.0002	0.0199	25.6	0.0037	<0.0000019	0.0034	0.0029	
RSEM-R6E-EOP	11/1/2021 14:10	AJS226	M	C184600	1.98	1.46	0.0301	<0.0005	0.0003	0.0948	<0.0001	<0.001	0.074	0.000012	70.8	<0.001	<0.0002	0.00069	0.044	<0.0002	0.0207	23.9	0.0031	<0.0000019	0.0034	0.0027	
RSEM-R6E-EOP	11/1/2021 14:20	AJS227	D	C184600	1.83	0.97	0.0292	<0.0005	0.00027	0.0955	<0.0001	<0.001	0.076	<0.00001	71.9	<0.001	<0.0002	0.00064	0.044	<0.0002	0.0217	24.0	0.003	<0.0000019	0.0035	0.0028	
RSEM-R6E-EOP	11/2/2021 14:45	AJU789	M	C184881	1.22	1.50	0.0259	<0.0005	0.00028	0.103	<0.0001	<0.001	0.073	<0.00001	72.3	<0.001	<0.0002	0.00066	0.056	<0.0002	0.0208	23.5	0.0026	<0.0000019	0.0036	0.003	
RSEM-R6E-EOP	11/3/2021 12:10	AJX282	M	C185315	1.03	1.18	0.0449	<0.0005	0.0003	0.125	<0.0001	<0.001	0.084	<0.00001	73.8	<0.001	<0.0002	0.00059	0.062	<0.0002	0.0236	25.1	0.0028	0.0000019	0.004	0.0029	
RSEM-R6E-EOP	11/3/2021 12:20	AJX283	D	C185315	1.22	1.18	0.0324	<0.0005	0.00031	0.124	<0.0001	<0.001	0.08	<0.00001	74.3	<0.001	<0.0002	0.0013	0.043	<0.0002	0.0237	26.5	0.0028	0.0000025	0.004	0.0029	
RSEM-R6E-EOP	11/4/2021 10:55	AKA061	M	C185756	1.39	1.49	0.0281	<0.0005	0.00029	0.136	<0.0001	<0.001	0.079	<0.00001	74.6	<0.001	<0.0002	0.00061	0.034	<0.0002	0.0233	25.9	0.0032	<0.0000019	0.0039	0.0031	
RSEM-R6E-EOP	11/5/2021 11:05	AKA064	M	C185757	1.15	1.52	0.0317	<0.0005	0.00033	0.157	<0.0001	<0.001	0.078	<0.00001	77.2	<0.001	<0.0002	0.00055	0.04	<0.0002	0.0236	24.6	0.0091	<0.0000019	0.004	0.0033	
RSEM-R6E-EOP	11/5/2021 11:15	AKA065	D	C185757	1.29	1.53	0.043	<0.0005	0.00032	0.154	<0.0001	<0.001	0.077	<0.00001	75.9	<0.001	<0.0002	0.00066	0.041	<0.0002	0.0229	24.8	0.0089	<0.0000019	0.004	0.0033	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	11/6/2021 10:55	AKD992	M	C186250	1.32	1.11	0.0312	<0.0005	0.00032	0.153	<0.0001	<0.001	0.079	<0.00001	80.8	<0.001	0.00022	0.00062	0.037	<0.0002	0.0235	24.5	0.0129	0.0000026	0.0044	0.0039	
RSEM-R6E-EOP	11/7/2021 10:35	AKD997	M	C186252	1.23	1.50	0.033	<0.0005	0.00036	0.155	<0.0001	<0.001	0.081	<0.00001	87.7	<0.001	0.00031	0.0007	0.038	<0.0002	0.0245	25.3	0.0175	<0.0000019	0.0048	0.0048	
RSEM-R6E-EOP	11/7/2021 10:45	AKD998	D	C186252	1.73	1.52	0.033	<0.0005	0.00037	0.162	<0.0001	<0.001	0.078	<0.00001	87.6	<0.001	0.00031	0.00072	0.037	<0.0002	0.0246	25.2	0.0177	<0.0000019	0.005	0.0049	
RSEM-R6E-EOP	11/8/2021 10:30	AKD974	M	C186247	1.41	1.43	0.0369	<0.0005	0.00037	0.151	<0.0001	<0.001	0.084	<0.00001	94.0	<0.001	0.00052	0.00076	0.04	<0.0002	0.0257	25.8	0.0214	<0.0000019	0.0052	0.0066	
RSEM-R6E-EOP	11/9/2021 11:30	AKJ862	M	C187047	1.62	1.92	0.0271	<0.0005	0.00035	0.131	<0.0001	<0.001	0.077	<0.00001	91.9	<0.001	0.00039	0.00072	0.03	<0.0002	0.0238	24.6	0.0137	<0.0000019	0.0049	0.0065	
RSEM-R6E-EOP	11/10/2021 12:00	AKN274	M	C187468	1.22	1.48	0.0273	<0.0005	0.00036	0.142	<0.0001	<0.001	0.076	0.000015	94.8	<0.001	0.00055	0.00077	0.023	<0.0002	0.0238	26.6	0.0156	<0.0000019	0.0053	0.0074	
RSEM-R6E-EOP	11/11/2021 10:30	AKN227	M	C187460	1.47	1.42	0.0225	<0.0005	0.00034	0.138	<0.0001	<0.001	0.077	0.000011	95.1	<0.001	0.00056	0.00074	0.021	<0.0002	0.0242	25.5	0.0199	<0.0000019	0.0049	0.0073	
RSEM-R6E-EOP	11/12/2021 10:30	AKN246	M	C187463	1.04	1.33	0.0233	<0.0005	0.00034	0.134	<0.0001	<0.001	0.075	0.000016	93.0	<0.001	0.00064	0.00073	0.022	<0.0002	0.0241	24.9	0.0206	<0.0000019	0.0048	0.0076	
RSEM-R6E-EOP	11/13/2021 10:30	AKS759	M	C188237	3.21	1.79	0.023	<0.0005	0.00032	0.139	<0.0001	<0.001	0.077	0.000026	97.5	<0.001	0.00083	0.00085	0.02	<0.0002	0.0229	23.7	0.0247	0.000002	0.005	0.0083	
RSEM-R6E-EOP	11/14/2021 10:30	AKS790	M	C188243	1.74	1.87	0.0242	<0.0005	0.00034	0.144	<0.0001	<0.001	0.083	0.000025	99.4	<0.001	0.00066	0.00091	0.021	<0.0002	0.0238	24.4	0.0217	<0.0000019	0.0051	0.0081	
RSEM-R6E-EOP	11/15/2021 6:00	AKS804	M	C188248	2.43	1.81	0.026	<0.0005	0.00034	0.148	<0.0001	<0.001	0.085	0.000028	99.6	<0.001	0.00072	0.00092	0.021	<0.0002	0.0243	24.5	0.0218	<0.0000019	0.0053	0.0085	
RSEM-R6E-EOP	11/16/2021 14:40	AKV418	M	C188704	1.76	1.76	0.0292	<0.0005	0.00035	0.137	<0.0001	<0.001	0.087	0.000028	92.0	<0.001	0.0006	0.00082	0.023	<0.0002	0.0264	25.1	0.0189	<0.0000019	0.005	0.008	
RSEM-R6E-EOP	11/16/2021 14:50	AKV419	D	C188704	1.36	1.53	0.0261	<0.0005	0.00033	0.136	<0.0001	<0.001	0.086	0.000032	92.1	<0.001	0.00062	0.00081	0.02	<0.0002	0.0265	25.2	0.0189	<0.0000019	0.005	0.0078	
RSEM-R6E-EOP	11/17/2021 11:05	AKY309	M	C189131	1.56	1.90	0.0228	<0.0005	0.00035	0.137	<0.0001	<0.001	0.086	0.000027	90.5	<0.001	0.00068	0.00081	0.025	<0.0002	0.0269	22.1	0.0198	<0.0000019	0.0051	0.0088	
RSEM-R6E-EOP	11/18/2021 10:30	AKZ640	M	C189345	1.41	1.93	0.0259	<0.0005	0.00036	0.135	<0.0001	<0.001	0.093	0.000047	86.1	<0.001	0.00075	0.00079	0.025	<0.0002	0.0272	22.5	0.022	0.0000038	0.005	0.0091	
RSEM-R6E-EOP	11/18/2021 10:40	AKZ641	D	C189345	1.57	1.56	0.0273	<0.0005	0.00032	0.135	<0.0001	<0.001	0.097	0.000027	86.9	<0.001	0.00077	0.0008	0.028	<0.0002	0.0286	23.0	0.0222	<0.0000019	0.0051	0.0092	
RSEM-R6E-EOP	11/19/2021 10:45	AKZ638	M	C189344	1.77	1.30	0.0354	0.00051	0.00039	0.141	<0.0001	<0.001	0.088	0.000049	94.0	<0.001	0.00136	0.00099	0.038	<0.0002	0.0271	23.4	0.0449	0.0000024	0.0054	0.0125	
RSEM-R6E-EOP	11/20/2021 10:10	ALR014	M	C192879	1.70	1.50	0.0428	0.00075	0.00067	0.218	<0.0001	<0.001	0.129	0.000073	133	0.0052	0.00188	0.00144	0.058	<0.0002	0.0386	33.6	0.0819	<0.0000019	0.0082	0.0204	
RSEM-R6E-EOP	11/20/2021 10:20	ALR015	D	C192879	1.49	1.60	0.0481	0.00078	0.00081	0.24	<0.0001	<0.001	0.139	0.000061	145	0.0053	0.00227	0.00156	0.063	0.00027	0.0425	37.2	0.0913	<0.0000019	0.0095	0.0225	
RSEM-R6E-EOP	11/21/2021 10:00	ALT347	M	C193212	1.78	1.50	0.0367	0.00081	0.00069	0.207	<0.0001	<0.001	0.112	0.000073	117	0.0048	0.00149	0.00117	0.062	<0.0002	0.0358	27.3	0.0727	<0.0000019	0.0088	0.017	
RSEM-R6E-EOP	11/22/2021 10:35	ALQ579	M	C192775	1.80	1.65	0.0444	0.00061	0.00065	0.175	<0.0001	<0.001	0.119	0.000057	116	0.0012	0.00124	0.00158	0.063	<0.0002	0.0356	31.1	0.0679	<0.0000019	0.0079	0.0138	
RSEM-R6E-EOP	11/22/2021 10:45	ALQ580	D	C192775	1.67	1.66	0.0387	0.00054	0.00052	0.156	<0.0001	<0.001	0.114	0.000049	111	0.001	0.00111	0.00107	0.061	<0.0002	0.0342	28.0	0.0615	<0.0000019	0.0071	0.0125	
RSEM-R6E-EOP	11/23/2021 10:05	ALN415	M	C192217	1.56	1.52	0.036	0.00053	0.00058	0.162	<0.0001	<0.001	0.119	0.000052	110	0.0011	0.00098	0.00105	0.048	<0.0002	0.0345	30.0	0.056	<0.0000019	0.0076	0.0122	
RSEM-R6E-EOP	11/24/2021 10:25	ALQ701	M	C192806	1.54	1.72	0.0281	<0.0005	0.00037	0.125	<0.0001	<0.001	0.098	0.000038	90.8	<0.001	0.00068	0.00078	0.04	<0.0002	0.0255	20.7	0.0372	<0.0000019	0.0057	0.01	
RSEM-R6E-EOP	11/24/2021 10:35	ALQ702	D	C192806	1.84	1.75	0.0296	<0.0005	0.00036	0.126	<0.0001	<0.001	0.091	0.000035	89.1	<0.001	0.00069	0.00079	0.038	<0.0002	0.0245	21.5	0.0377	<0.0000019	0.0058	0.0103	
RSEM-R6E-EOP	11/25/2021	FJ2101334-001	M	FJ2101334	1.86	1.58	0.0447	0.00040	0.00041	0.141	<0.000100	<0.000050	0.082	0.0000249	88.6	0.00070	0.00063	0.00083	0.040	<0.000050	0.0244	24.3	0.0333	<0.0000050	0.00570	0.00951	<0.050
RSEM-R6E-EOP	11/26/2021 10:00	FJ2101337-001	M	FJ2101337	2.10	1.62	0.0408	0.00041	0.00042	0.149	<0.000100	<0.000050	0.086	0.0000499	96.0	<0.00050	0.00094	0.00081	0.032	<0.000050	0.0277	25.9	0.0549	<0.0000050	0.00556	0.0107	<0.050
RSEM-R6E-EOP	11/26/2021 10:10	FJ2101337-002	D	FJ2101337	1.92	1.61	0.0402	0.00042	0.00041	0.154	<0.000100	<0.000050	0.089	0.0000473	94.9	0.00050	0.00095	0.00083	0.034	<0.000050	0.0271	25.8	0.0551	<0.0000050	0.00558	0.0107	<0.050
RSEM-R6E-EOP	11/27/2021 10:30	FJ2101340-001	M	FJ2101340	1.90	2.13	0.0403	0.00040	0.00041	0.130	<0.000100	<0.000050	0.081	0.0000538	100	<0.00050	0.00111	0.00095	0.032	<0.000050	0.0285	28.4	0.0817	<0.0000050	0.00517	0.0125	<0.050
RSEM-R6E-EOP	11/28/2021 10:00	FJ2101338-001	M	FJ2101338	1.87	1.78	0.0324	0.00043	0.00042	0.143	<0.000100	<0.000050	0.088	0.0000568	95.4	0.00057	0.00103	0.00090	0.038	<0.000050	0.0284	27.7	0.0765	<0.0000050	0.00550	0.0120	<0.050
RSEM-R6E-EOP	11/28/2021 10:10	FJ2101338-002	D	FJ2101338	1.97	1.61	0.0425	0.00046	0.00041	0.148	<0.000100	<0.000050	0.092	0.0000449	97.4	<0.00050	0.00102	0.00095	0.037	0.000238	0.0303	28.8	0.0774	<0.0000050	0.00581	0.0123	<0.050
RSEM-R6E-EOP	11/29/2021 9:45	FJ2101339-001	M	FJ2101339	1.93	1.72	0.0536	0.00041	0.00044	0.128	<0.000100	<0.000050	0.081	0.0000443	100	<0.00050	0.00108	0.00088	0.036	<0.000050	0.0297	29.7	0.0835	<0.0000050	0.00530	0.0125	<0.050
RSEM-R6E-EOP	11/30/2021 12:00	FJ2101361-001	M	FJ2101361	2.07	2.88	0.0386	0.00042	0.00042	0.131	<0.000100	<0.000050	0.087	0.0000353	92.5	<0.00050	0.00084	0.00080	0.035	<0.000050	0.0284	29.3	0.0631	<0.0000050	0.00545	0.0115	<0.050
RSEM-R6E-EOP	12/1/2021 12:00	FJ2101362-001	M	FJ2101362	2.15	2.60	0.0377	0.00045	0.00041	0.132	<0.000100	<0.000050	0.085	0.0000378	105	<0.00050	0.00096	0.00088	0.037	<0.000050	0.0275	31.9	0.0708	<0.0000050	0.00563	0.0115	<0.050
RSEM-R6E-EOP	12/2/2021 11:30	FJ2101375-001	M	FJ2101375	1.82	1.66	0.0390	0.00044	0.00045	0.126	<0.000100	<0.000050	0.086	0.0000346	97.9	<0.00050	0.00087	0.00086	0.046	<0.000050	0.0308	32.2	0.0557	<0.0000050	0.00578	0.0114	<0.050
RSEM-R6E-EOP	12/3/2021 11:00	FJ2101374-001	M	FJ2101374	1.92	1.94	0.0348	0.00040	0.00042	0.114	<0.000100	<0.000050	0.087	0.0000329	104	<0.00050	0.00073	0.00084	0.043	<0.000050	0.0323	34.8	0.0487	<0.0000050	0.00539	0.0113	<0.050
RSEM-R6E-EOP	12/4/2021 11:00	FJ2101385-001	M	FJ2101385	1.77	2.52	0.0243	0.00043	0.00041	0.114	<0.000100	<0.000050	0.089	0.0000210	106	<0.00050	0.00043	0.00084	0.024	<0.000050	0.0334	35.5	0.0349	<0.0000050	0.00544	0.0115	<0.050
RSEM-R6E-EOP	12/8/2021 11:00	FJ2101419-001	M	FJ2101419	2.02	2.01	0.0208	0.00038	0.00037	0.125	<0.000100	<0.000050	0.099	0.0000156	116	<0.00050	0.00023	0.00083	0.019	<0.000050	0.0365	38.2	0.0147	<0.0000050	0.00576	0.0106	<0.050
RSEM-R6E-EOP	12/9/2021 10:05	FJ2101442-001	M	FJ2101442	2.09	1.78	0.0256	0.00040	0.00044	0.109	<0.000100	<0.000050	0.109	0.0000209	120	<0.00050	0.00037	0.00074	0.021	<0.000050	0.0412	39.8	0.0219	<0.0000050	0.00574	0.0102	<0.050
RSEM-R6E-EOP	12/9/2021 10:15	FJ2101442-002	D	FJ2101442	1.97	1.99	0.0225	0.00039	0.00044	0.115	<0.000100	<0.000050	0.108	0.0000233	116	<0.00050	0.00036	0.00074	0.019	<0.000050	0.0399	39.1	0.0218	<0.0000050	0.00558	0.0103	<0.050
RSEM-R6E-EOP	12/10/2021 10:45	FJ2101436-001	M	FJ2101436	2.05	2.21	0.0085	0.00040	0.00044	0.117	<0.000100	<0.000050	0.108	0.0000156	119	<0.00050	0.00029	0.00064	<0.010	<0.000050	0.0416	38.6	0.0186	<0.0000050	0.00584	0.0104	<0.050
RSEM-R6E-EOP	12/11/2021 13:40	FJ2101439-001	M	FJ2101439	2.17	2.44	0.0209	0.00038	0.00044	0.104	<0.000100	<0.000050	0.107	0.0000198	117	<0.00050	0.00021	0.00070	0.019	<0.000050	0.0402	40.0	0.0135	<0.0000050	0.00549	0.00918	<0.050
RSEM-R6E-EOP	12/11/2021 13:50	FJ2101439-002	D	FJ2101439	2.11	2.18	0.0190	0.00038	0.00046	0.107	<0.000100	<0.000050	0.107	0.0000178	117	<0.00050	0.00020	0.00074	0.021	<0.000050	0.0402	39.9	0.0134	<0.0000050	0.00554	0.00920	<0.050
RSEM-R6-EP-US-SD	3/17/2021 13:35	ZM7316	M	C117752	4.90	4.68	6.33	<0.0025	0.0111	0.6	0.00058	<0.005	<0.25	0.000865	74.0	0.0121	0.0162	0.0353	27.2	0.0138	0.028	14.8	0.367	0.000151	<0.005	0.0584	
RSEM-R6-EP-US-SD	5/19/2021 11:30	ZV3571	M	C134016	1.53	2.01	0.0842	0.00054	0.00051	0.107	<0.0001	<0.001	0.131	0.000017	77.9	0.001	0.00044	0.00089	0.202	<0.0002	0.025	18.8	0.0232	0.000002	0.0063	0.0043	
RSEM-R6-EP-US-SD	7/20/2021 13:55	ACH817	M	C152456	3.2	4.19	212	0.00189	0.087	7.25	0.0136	0.0043	0.324	0.0245	1480	0.554	0.318	0.662	632	0.289	0.342	276	10.8	0.003	0.0178	0.94	
RSEM-R6E-SP	2/3/2021 14:30	ZG9146	M	C107662	2.88	2.73	0.0397	<0.0005	0.00038	0.14	<0.0001	<0.001	0.072	0.000017	74.7	<0.001	0.00027	0.00163	0.066	<0.0002	0.0139	19.4	0.0531	<0.0000019	0.0054	0.0029	
RSEM-R6E-SP	2/3/2021 14:40	ZG9147	D	C107662	2.88	2.66	0.036	<0.0005	0.00037	0.142	<0.0001	<0.001	0.074	0.000015	77.6	<0.001	0.00027	0.00138	0.072	<0.0002	0.0141	19.9	0.0543	<0.0000019	0.0054	0.0029	
RSEM-R6E-SP	2/4/2021 13:30	ZH1010	M	C107961	2.90	2.69	0.0417	<0.0005	0.0004	0.149	<0.0001	<0.001	0.081	0.000016	75.6	<0.001	0.00022	0.00182	0.07	<0.0002	0.0154	20.3	0.0424	<0.0000019	0.0061	0.0029	
RSEM-R6E-SP	2/5/2021 13:50	ZH1013	M	C107964	3.03	2.46	0.0346	<0.0005	0.00042	0.147	<0.0001	<0.001	0.079	0.000016	82.5	<0.001	0.00033	0.00129	0.066	<0.0002	0.0159	21.2	0.058	<0.0000019	0.0056	0.0032	
RSEM-R6E-SP	2/8/2021 10:30	ZH3062	M	C108279	3.91	3.05	0.0448	<0.0005	0.00047	0.15	<0.0001	<0.001	0.082	0.00002	84.6	<0.001	0.00037	0.00241	0.077	<0.0002	0.016	20.8	0.054	<0.0000019	0.0056	0.0032	
RSEM-R6E-SP	2/16/2021 14:00	ZI2028	M	C110128	2.91	2.22	0.0375	<0.0005	0.00041	0.148	<0.0001	<0.001	0.08	0.000016	83.8	<0.001	0.00039	0.00149	0.069	<0.0002	0.0149	20.8	0.0649	<0.0000019	0.0057	0.0036	
RSEM-R6E-SP	2/26/2021 14:10	ZJ8523	M	C112618	4.10	3.07	0.0425	<0.0005	0.00039	0.101	<0.0001	<0.001	0.057	0.00003	58.9	0.0011	0.0006	0.00207	0.061	<0.0002	0.0106	13.5	0.0648	<0.0000019	0.0055	0.0038	
RSEM-R6E-SP	2/27/2021 13:00	ZK1992	M	C113050	5.22	4.79	0.0468	<0.0005	0.00042	0.103	<0.0001	<0.001	0.059	0.000031	61.7	0.0013	0.0006	0.00466	0.047	<0.0002	0.0133	14.2	0.0638	<0.0000019	0.0067	0.004	
RSEM-R6E-SP	3/12/2021 12:35	ZM0346	M	C116306	2.72	2.31	0.0187	0.0006	0.00034	0.101	<0.0001	<0.001	<0.05	0.000014	57.5	<0.001	0.00036	0.00278	0.028	<0.0002	0.012	14.7	0.0762	<0.0000019	0.0047	0.0023	
RSEM-R6E-SP	3/14/2021 12:45	ZM2397	M	C116750	3.61	3.10	0.0316	0.00061	0.00034	0.0987	<0.0001	<0.001	<0.05	0.000016	52.6	<0.001	0.00037	0.00404	0.053	<0.0002	0.0126	13.7	0.0584	<0.0000019	0.0046	0.0022	
RSEM-R6E-SP	3/25/2021 15:30	ZN6324	M	C119610	2.42	2.73	0.043	<0.0005	0.00027	0.057	<0.0001	<0.001	<0.05	0.000028	42.6	<0.001	0.00083	0.00282	0.049	<0.0002	0.0108	8.69	0.057	<0.0000019	0.0039	0.0049	
RSEM-R6E-SP	6/1/2021 11:15	ZX3970	M	C137816	6.73	4.51	0.0248	0.00051	0.00052	0.129	<0.0001	<0.001	0.117	<0.00001	98.4	<0.001	<0.0002	0.00102	0.034	<0.0002	0.0286	23.6	0.0048	<0.0000019	0.0074	0.0019	
RSEM-R6E-SP	6/2/2021 12:55	ZX5270	M	C138096	6.10	8.21	0.0284	0.00051	0.00052	0.124	<0.0001	<0.001	0.12	<0.00001	93.0	<0.001	<0.0002	0.00159	0.04	<0.0002	0.0294	23.7	0.0047	<0.0000019	0.0073	0.0018	
RSEM-R6E-SP	6/3/2021 11:50	ZX7151	M	C138404	4.76	5.41	0.0287	<0.0005	0.0005	0.125	<0.0001	<0.001	0.113	<0.00001	87.4	<0.001	<0.0002	0.00189	0.046	<0.0002	0.0311	24.4	0.0069	<0.0000019	0.0071	0.0016	
RSEM-R6E-SP	6/4/2021 11:20	ZX6906	M	C138357	4.59	5.73	0.0278	<0.0005	0.00048	0.121	<0.0001	<0.001	0.113	<0.00001	87.0	<0.001	<0.0002	0.00127	0.037	<0.0002	0.0319	25.1	0.0057	<0.0000019	0.0072	0.0016	
RSEM-R6E-SP	6/12/2021 10:40	ZZ1988	M	C141056	2.69	2.83	0.0201	0.00055	0.00055	0.106	<0.0001	<0.001	0.123	<0.00001	72.9	<0.001	<0.0002	0.00113	0.028	<0.0002	0.0297	26.0	0.0025	<0.0000019	0.0066	0.0016	
RSEM-R6E-SP	6/13/2021 14:30	ZZ1993	M	C141057	<13	3.12	0.0202	0.00053	0.00054	0.103	<0.0001	<0.001	0.129	<0.00001	72.6	<0.001	<0.0002	0.00112	0.026	<0.0002	0.0313	26.9	0.002	<0.0000019	0.0066	0.0014	
RSEM-R6E-SP	6/14/2021 10:55	ZZ2009	M	C141059	3.53	3.55	0.0165	0.00054	0.00054	0.106	<0.0001	<0.001	0.125	<0.00001	72.7	<0.001	<0.0002	0.00144	0.025	<0.0002	0.0302	26.6	0.0024	<0.0000019	0.0067	0.0014	
RSEM-R6E-SP	6/22/2021 13:40	AAL815	M	C144319	2.77	2.98	0.0191	<0.0005	0.00048	0.0792	<0.0001	<0.001	0.137	0.000024	65.3	<0.001	<0.0002	0.00099	0.022	<0.0002	0.0275	24.1	0.0028	<0.0000019	0.0076	0.0018	
RSEM-R6E-SP	6/23/2021 15:00	AAO112	M	C144722	2.60	2.77	0.0234	<0.0005	0.00047	0.0751	<0.0001	<0.001	0.134	<0.00001	69.4	<0.001	<0.0002	0.00183	0.041	<0.0002	0.0372	26.1	0.0036	<0.0000019	0.0075	0.0019	
RSEM-R6E-SP	6/24/2021 15:00	AAQ177	M	C144970	<13	2.77	0.0304	<0.0005	0.00049	0.057	<0.0001	<0.001	0.124	<0.00001	82.2	<0.001	<0.0002	0.00116	0.024	<0.0002	0.0316	53.7	0.0036	<0.0000019	0.0078	0.0015	
RSEM-R6E-SP	6/25/2021 13:40	AAP489	M	C144894	<13	2.76	0.0244	<0.0005	0.00048	0.0538	<0.0001	<0.001	0.112	0.000022	76.6	<0.001	<0.0002	0.00115	0.033	<0.0002	0.031	49.4	0.0032	<0.0000019	0.0073	0.0016	
RSEM-R6E-SP	6/26/2021 14:50	AAU432	M	C145599	<13	3.02	0.0189	<0.0005	0.00049	0.0818	<0.0001	<0.001	0.139	<0.00001	66.9	<0.001	<0.0002	0.00103	0.025	<0.0002	0.0319	24.3	0.0038	0.0000038	0.0078	0.0016	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	6/27/2021 13:35	AAU319	M	C145583	<13	2.86	0.0179	<0.0005	0.00053	0.0804	<0.0001	<0.001	0.136	<0.00001	65.7	<0.001	<0.0002	0.0012	0.029	<0.0002	0.031	23.2	0.0034	<0.0000019	0.0075	0.0018	
RSEM-R6E-SP	6/28/2021 14:00	AAX136	M	C146134	3.14	3.83	0.0182	<0.0005	0.00057	0.0829	<0.0001	<0.001	0.14	<0.00001	67.4	0.0011	0.0006	0.0016	0.028	<0.0002	0.0317	24.0	0.0075	0.0000035	0.0076	0.0232	
RSEM-R6E-SP	6/29/2021 15:30	AAZ027	M	C146532	3.39	2.81	0.0212	<0.0005	0.00068	0.0869	<0.0001	<0.001	0.115	<0.00001	67.3	0.0012	<0.0002	0.00103	0.026	<0.0002	0.0344	27.2	0.0041	<0.0000019	0.0076	0.002	
RSEM-R6E-SP	6/30/2021 11:20	AAZ002	M	C146528	3.27	2.80	0.022	<0.0005	0.00076	0.0918	<0.0001	<0.001	0.122	<0.00001	70.9	<0.001	<0.0002	0.00091	0.026	<0.0002	0.0345	27.6	0.0065	<0.0000019	0.0076	0.0019	
RSEM-R6E-SP	7/1/2021 15:40	ABB251	M	C146903	<13	2.83	0.0191	<0.0005	0.00093	0.0975	<0.0001	<0.001	0.122	0.000066	70.4	<0.001	<0.0002	0.001	0.026	<0.0002	0.0368	27.8	0.0165	<0.0000019	0.0078	0.0025	
RSEM-R6E-SP	7/2/2021 12:25	ABB257	M	C146905	<13	2.97	0.0205	<0.0005	0.00098	0.0966	<0.0001	<0.001	0.123	<0.00001	69.2	0.0013	<0.0002	0.00087	0.043	<0.0002	0.0366	27.5	0.0267	<0.0000019	0.0076	0.0028	
RSEM-R6E-SP	7/3/2021 9:25	ABE023	M	C147272	3.02	2.94	0.0213	<0.0005	0.00088	0.102	<0.0001	<0.001	0.128	0.000013	63.8	0.0017	0.00031	0.00153	0.056	<0.0002	0.0303	27.6	0.033	<0.0000019	0.0079	0.0073	
RSEM-R6E-SP	7/4/2021 14:00	ABD994	M	C147267	45	3.48	0.0172	<0.0005	0.00101	0.108	<0.0001	<0.001	0.144	<0.00001	65.9	<0.001	<0.0002	0.00104	0.049	<0.0002	0.0349	27.7	0.0104	0.0000025	0.0085	0.0035	
RSEM-R6E-SP	7/5/2021 9:50	ABG200	M	C147674	<10	2.59	0.0188	<0.0005	0.00094	0.111	<0.0001	<0.001	0.153	0.000013	64.7	<0.001	0.0002	0.00102	0.064	<0.0002	0.0355	28.2	0.0157	<0.0000019	0.0085	0.0053	
RSEM-R6E-SP	7/6/2021 10:40	ABJ178	M	C148228	<13	3.38	0.0249	<0.0005	0.001	0.11	<0.0001	<0.001	0.143	<0.00001	59.4	<0.001	<0.0002	0.00074	0.064	<0.0002	0.0317	25.3	0.0143	<0.0000019	0.0083	0.0026	
RSEM-R6E-SP	7/7/2021 12:00	ABK531	M	C148516	<13	2.49	0.0193	<0.0005	0.001	0.113	<0.0001	<0.001	0.15	<0.00001	58.3	<0.001	<0.0002	0.00111	0.102	<0.0002	0.0319	25.6	0.0122	<0.0000019	0.0084	0.0039	
RSEM-R6E-SP	7/8/2021 12:00	ABM760	M	C148925	15	3.12	0.0211	<0.0005	0.00093	0.112	<0.0001	<0.001	0.146	<0.00001	57.8	0.0017	<0.0002	0.00114	0.05	<0.0002	0.0309	25.8	0.0175	<0.0000019	0.0083	0.0026	
RSEM-R6E-SP	7/9/2021 10:10	ABM747	M	C148923	3.65	2.75	0.017	<0.0005	0.00085	0.112	<0.0001	<0.001	0.15	<0.00001	56.3	<0.001	<0.0002	0.0009	0.033	<0.0002	0.0307	26.2	0.014	<0.0000019	0.0083	0.0024	
RSEM-R6E-SP	7/10/2021 10:30	ABP527	M	C149429	3.21	3.67	0.0233	<0.0005	0.0012	0.117	<0.0001	<0.001	0.162	<0.00001	56.9	<0.001	0.00031	0.0009	0.037	<0.0002	0.0348	25.9	0.0671	<0.0000019	0.0081	0.0078	
RSEM-R6E-SP	7/11/2021 10:30	ABP672	M	C149459	2.91	3.04	0.018	<0.0005	0.00112	0.118	<0.0001	<0.001	0.16	<0.00001	55.7	<0.001	0.00024	0.00081	0.044	<0.0002	0.035	26.6	0.0292	<0.0000019	0.0084	0.0026	
RSEM-R6E-SP	7/12/2021 5:00	ABP853	M	C149486	2.39	2.78	0.0175	<0.0005	0.00113	0.115	<0.0001	<0.001	0.164	<0.00001	54.1	0.0037	0.00022	0.00084	0.055	<0.0002	0.035	25.7	0.0182	<0.0000019	0.0084	0.0036	
RSEM-R6E-SP	7/15/2021 15:55	ABY387	M	C150960	3.52	2.52	0.0144	<0.0005	0.00117	0.109	<0.0001	<0.001	0.113	0.000021	49.4	0.001	<0.0002	0.00075	0.046	<0.0002	0.0298	24.7	0.0181	<0.0000019	0.008	0.002	
RSEM-R6E-SP	7/16/2021 13:10	ABZ186	M	C151029	3.25	2.27	0.0127	<0.0005	0.00133	0.115	<0.0001	<0.001	0.108	<0.00001	53.7	<0.001	<0.0002	0.00087	0.042	<0.0002	0.0276	23.9	0.0317	<0.0000019	0.0077	0.0025	
RSEM-R6E-SP	7/29/2021 12:20	ACY651	M	C155287	2.19	1.80	0.037	0.00051	0.00073	0.0727	<0.0001	<0.001	0.126	0.00001	97.8	0.0019	0.00085	0.00187	0.047	<0.0002	0.0294	23.1	0.0137	<0.0000019	0.008	0.0395	
RSEM-R6E-SP	7/30/2021 10:20	ACY653	M	C155288	<13	2.95	0.0254	<0.0005	0.00064	0.0661	<0.0001	<0.001	0.122	<0.00001	89.3	0.0012	<0.0002	0.00074	0.032	<0.0002	0.0275	21.9	0.005	<0.0000019	0.0077	0.0058	
RSEM-R6E-SP	7/31/2021 12:20	ADA373	M	C155508	3.20	4.60	0.0255	0.0005	0.00072	0.0656	<0.0001	<0.001	0.124	<0.00001	86.0	0.0011	<0.0002	0.00091	0.035	<0.0002	0.0256	23.0	0.0047	<0.0000019	0.0079	0.0021	
RSEM-R6E-SP	8/1/2021 11:30	ADC691	M	C155924	<13	3.63	0.0272	<0.0005	0.00077	0.0679	<0.0001	<0.001	0.124	<0.00001	87.2	0.0013	<0.0002	0.00094	0.04	<0.0002	0.0281	24.0	0.0053	<0.0000019	0.0084	0.002	
RSEM-R6E-SP	12/5/2021 13:00	FJ2101386-001	M	FJ2101386	2.51	2.55	0.0273	0.00050	0.00042	0.166	<0.000100	<0.000050	0.099	0.0000232	106	<0.00050	0.00041	0.00101	0.020	<0.000050	0.0328	30.8	0.0223	<0.0000050	0.00663	0.00985	<0.050
RSEM-R6E-SP	12/12/2021 11:55	FJ2101434-001	M	FJ2101434	1.93	2.17	0.0251	0.00051	0.00046	0.148	<0.000100	<0.000050	0.115	0.0000235	119	<0.00050	0.00046	0.00090	0.021	<0.000050	0.0388	37.3	0.0286	<0.0000050	0.00683	0.0110	<0.050
RSEM-R6E-SP	12/15/2021 14:30	FJ2101472-002	M	FJ2101472	2.26	2.50	0.0194	0.00042	0.00036	0.119	<0.000100	<0.000050	0.101	0.0000080	124	<0.00050	0.00016	0.00070	0.024	<0.000050	0.0386	42.3	0.00838	<0.0000050	0.00599	0.0110	<0.050
RSEM-R6E-SP	12/22/2021 7:00	FJ2101508-003	M	FJ2101508	2.38	2.91	0.0227	0.00049	0.00052	0.149	<0.000100	<0.000050	0.128	0.0000218	131	<0.00050	0.00030	0.00084	0.033	<0.000050	0.0423	44.1	0.0222	<0.0000050	0.00739	0.0115	<0.050
RSEM-R6E-SP-US	5/27/2021 15:20	ZW4833	M	C136103	1.10	1.48	0.0804	<0.0005	0.00032	0.103	<0.0001	<0.001	0.185	0.000049	93.3	<0.001	0.00191	0.00141	0.136	<0.0002	0.0418	26.4	0.0362	<0.0000019	0.0024	0.0095	
RSEM-R6E-SP-US	8/22/2021 14:00	AEI415	M	C161433	10.4	8.47	33	<0.0025	0.0313	1.53	0.0025	<0.005	<0.25	0.00433	275	0.0713	0.0611	0.123	100	0.0347	0.084	52.8	2.24	0.00044	0.0101	0.189	
RSEM-R6W-EOP	1/1/2021 14:50	ZC6628	M	C100093	3.63	3.31	0.0592	0.0014	0.00098	0.0135	<0.0001	<0.001	0.128	<0.00001	26.9	0.002	0.00034	0.00076	0.048	<0.0002	0.0596	30.6	0.0043	<0.0000019	0.0097	0.0059	
RSEM-R6W-EOP	1/2/2021 15:55	ZC7220	M	C100230	3.21	3.58	0.0648	0.00139	0.00095	0.0134	<0.0001	<0.001	0.136	<0.00001	28.2	0.0018	0.00034	0.00074	0.043	<0.0002	0.0656	31.1	0.0042	<0.0000019	0.0099	0.0059	
RSEM-R6W-EOP	1/3/2021 8:35	ZC7223	M	C100232	3.20	3.83	0.0558	0.00136	0.0009	0.013	<0.0001	<0.001	0.137	<0.00001	28.3	0.0017	0.00034	0.00074	0.044	<0.0002	0.0651	31.2	0.004	<0.0000019	0.0096	0.006	
RSEM-R6W-EOP	1/4/2021 18:20	ZC8854	M	C100618	2.85	3.05	0.0588	0.00123	0.00084	0.0126	<0.0001	<0.001	0.122	<0.00001	27.4	0.0016	0.00031	0.00079	0.053	<0.0002	0.0642	29.9	0.0038	<0.0000019	0.009	0.0056	
RSEM-R6W-EOP	1/5/2021 11:55	ZC8849	M	C100616	2.81	2.70	0.0626	0.00122	0.00081	0.0128	<0.0001	<0.001	0.118	<0.00001	26.7	0.0015	0.00029	0.00082	0.049	<0.0002	0.0629	29.2	0.0035	<0.0000019	0.0089	0.0056	
RSEM-R6W-EOP	1/6/2021 13:40	ZD1295	M	C101203	2.52	2.29	0.0605	0.00117	0.00079	0.0127	<0.0001	<0.001	0.121	<0.00001	25.9	0.0014	0.00027	0.00117	0.046	<0.0002	0.0584	30.0	0.0033	<0.0000019	0.0088	0.005	
RSEM-R6W-EOP	1/7/2021 13:10	ZD2460	M	C101487	2.41	2.37	0.0588	0.00123	0.00083	0.0138	<0.0001	<0.001	0.129	<0.00001	27.0	0.0013	0.00023	0.00065	0.043	<0.0002	0.0585	30.7	0.0032	<0.0000019	0.0089	0.0044	
RSEM-R6W-EOP	1/8/2021 13:20	ZD2450	M	C101485	2.30	2.52	0.0711	0.00118	0.00086	0.0162	<0.0001	<0.001	0.116	<0.00001	27.3	0.0014	0.00025	0.00084	0.041	<0.0002	0.0584	29.7	0.0047	<0.0000019	0.0089	0.0048	
RSEM-R6W-EOP	1/9/2021 14:20	ZD4127	M	C101792	2.45	2.40	0.0644	0.00127	0.00089	0.0144	<0.0001	<0.001	0.121	<0.00001	25.3	0.0014	0.00024	0.00078	0.048	<0.0002	0.0641	28.5	0.0034	<0.0000019	0.009	0.0046	
RSEM-R6W-EOP	1/10/2021 13:00	ZD4124	M	C101791	2.39	2.68	0.071	0.00129	0.00087	0.0156	<0.0001	<0.001	0.122	<0.00001	25.4	0.0013	0.00024	0.00079	0.051	<0.0002	0.065	28.0	0.0041	<0.0000019	0.0089	0.0046	
RSEM-R6W-EOP	1/11/2021 14:20	ZD5675	M	C102082	2.42	2.08	0.0667	0.00142	0.00095	0.0153	<0.0001	<0.001	0.118	<0.00001	25.6	0.0015	0.00024	0.00083	0.045	<0.0002	0.0522	28.3	0.0035	<0.0000019	0.0092	0.0048	
RSEM-R6W-EOP	1/12/2021 13:20	ZD8127	M	C102522	2.45	2.72	0.0796	0.00143	0.00094	0.0158	<0.0001	<0.001	0.133	<0.00001	26.3	0.0014	0.00021	0.00086	0.043	<0.0002	0.0531	29.8	0.0033	<0.0000019	0.0095	0.0042	
RSEM-R6W-EOP	1/13/2021 13:50	ZD9242	M	C102779	2.78	2.52	0.061	0.00156	0.00098	0.0162	<0.0001	<0.001	0.133	<0.00001	26.2	0.0014	<0.0002	0.0007	0.042	<0.0002	0.0628	29.7	0.003	<0.0000019	0.0095	0.0038	
RSEM-R6W-EOP	1/14/2021 10:30	ZD9431	M	C102840	2.69	2.42	0.0637	0.00168	0.001	0.016	<0.0001	<0.001	0.135	<0.00001	25.2	0.0017	<0.0002	0.00071	0.038	<0.0002	0.0637	29.1	0.0029	<0.0000019	0.0094	0.0038	
RSEM-R6W-EOP	1/15/2021 13:15	ZE0829	M	C103125	2.94	2.70	0.0536	0.00179	0.00102	0.0165	<0.0001	<0.001	0.131	<0.00001	23.9	0.0018	<0.0002	0.00068	0.037	<0.0002	0.0578	26.6	0.0025	<0.0000019	0.0091	0.0034	
RSEM-R6W-EOP	1/16/2021 11:05	ZE2984	M	C103538	3.86	3.30	0.07	0.00186	0.00114	0.0168	<0.0001	<0.001	0.129	<0.00001	23.8	0.0019	<0.0002	0.00074	0.039	<0.0002	0.0558	26.1	0.0026	<0.0000019	0.009	0.0032	
RSEM-R6W-EOP	1/17/2021 13:40	ZE3023	M	C103542	3.64	3.28	0.0802	0.00191	0.00109	0.0172	<0.0001	<0.001	0.127	<0.00001	23.5	0.0018	<0.0002	0.00072	0.049	<0.0002	0.0559	25.7	0.0026	<0.0000019	0.0089	0.0029	
RSEM-R6W-EOP	1/18/2021 10:30	ZE2901	M	C103523	3.29	3.90	0.0922	0.00186	0.00107	0.0173	<0.0001	<0.001	0.126	<0.00001	23.5	0.0019	<0.0002	0.00077	0.052	<0.0002	0.0569	26.2	0.0031	<0.0000019	0.0091	0.0032	
RSEM-R6W-EOP	1/19/2021 12:30	ZE5959	M	C104146	3.37	2.68	0.073	0.00178	0.00092	0.0157	<0.0001	<0.001	0.143	<0.00001	22.6	0.002	0.00025	0.00095	0.057	<0.0002	0.0587	25.6	0.0037	<0.0000019	0.0086	0.0041	
RSEM-R6W-EOP	1/20/2021 12:30	ZE6018	M	C104156	3.54	2.86	0.0625	0.00166	0.00091	0.0157	<0.0001	<0.001	0.139	<0.00001	23.5	0.0019	0.00025	0.00086	0.052	<0.0002	0.0588	27.4	0.0044	<0.0000019	0.0087	0.0043	
RSEM-R6W-EOP	1/21/2021 15:30	ZE9302	M	C104705	3.55	3.23	0.0691	0.0015	0.00087	0.0161	<0.0001	<0.001	0.122	<0.00001	25.2	0.0017	0.00028	0.00082	0.049	<0.0002	0.0594	27.7	0.0062	<0.0000019	0.0087	0.0043	
RSEM-R6W-EOP	1/22/2021 13:10	ZE9299	M	C104704	3.54	3.37	0.0855	0.00154	0.00089	0.018	<0.0001	<0.001	0.124	<0.00001	28.2	0.002	0.00039	0.00136	0.085	<0.0002	0.0613	29.1	0.0093	<0.0000019	0.0087	0.0053	
RSEM-R6W-EOP	1/23/2021 15:55	ZF1597	M	C105086	3.44	3.13	0.0904	0.00152	0.00093	0.02	<0.0001	<0.001	0.121	<0.00001	31.0	0.0023	0.00047	0.00088	0.073	<0.0002	0.0547	28.6	0.0112	<0.0000019	0.0085	0.0056	
RSEM-R6W-EOP	1/24/2021 13:55	ZF1582	M	C105082	3.85	3.40	0.0953	0.00154	0.00093	0.0211	<0.0001	<0.001	0.119	<0.00001	31.9	0.0026	0.00047	0.00091	0.085	<0.0002	0.0553	28.4	0.011	<0.0000019	0.0085	0.0056	
RSEM-R6W-EOP	1/25/2021 10:00	ZF1641	M	C105090	3.73	3.43	0.104	0.00159	0.00098	0.0226	<0.0001	<0.001	0.132	<0.00001	34.4	0.003	0.00059	0.00098	0.079	<0.0002	0.0604	31.0	0.0141	<0.0000019	0.0094	0.0071	
RSEM-R6W-EOP	2/6/2021 13:10	ZH3137	M	C108285	3.86	2.91	0.0925	0.00177	0.00114	0.0234	<0.0001	<0.001	0.14	<0.00001	36.0	0.0031	0.0004	0.00099	0.063	<0.0002	0.0624	33.7	0.0101	<0.0000019	0.0094	0.0053	
RSEM-R6W-EOP	2/7/2021 13:25	ZH3207	M	C108294	4.18	3.03	0.115	0.00173	0.00116	0.0258	<0.0001	<0.001	0.139	<0.00001	33.5	0.0032	0.00034	0.00102	0.073	<0.0002	0.0598	32.6	0.0086	<0.0000019	0.0088	0.0045	
RSEM-R6W-EOP	2/7/2021 13:35	ZH3208	D	C108294	3.96	3.20	0.115	0.00173	0.00117	0.0251	<0.0001	<0.001	0.144	<0.00001	34.0	0.0032	0.00032	0.00104	0.072	<0.0002	0.0606	32.1	0.0084	<0.0000019	0.0088	0.0044	
RSEM-R6W-EOP	2/8/2021 10:20	ZH3060	M	C108279	4.57	3.60	0.125	0.00166	0.0012	0.028	<0.0001	<0.001	0.131	<0.00001	32.5	0.0033	0.00028	0.00105	0.08	<0.0002	0.062	30.7	0.0084	<0.0000019	0.0084	0.0039	
RSEM-R6W-EOP	2/9/2021 15:50	ZH7147	M	C109072	4.16	3.74	0.102	0.00157	0.00113	0.027	<0.0001	<0.001	0.121	<0.00001	31.1	0.0035	0.00026	0.00108	0.07	<0.0002	0.0596	29.3	0.0077	<0.0000019	0.0081	0.0035	
RSEM-R6W-EOP	2/10/2021 13:10	ZH7144	M	C109071	4.38	4.01	0.0997	0.00154	0.00114	0.0256	<0.0001	<0.001	0.118	<0.00001	30.5	0.0036	0.00023	0.00126	0.071	<0.0002	0.0606	29.2	0.0068	<0.0000019	0.008	0.0033	
RSEM-R6W-EOP	2/11/2021 17:00	ZH8475	M	C109352	4.56	3.89	0.124	0.0015	0.00117	0.0235	<0.0001	<0.001	0.121	<0.00001	28.3	0.0037	<0.0002	0.00104	0.075	<0.0002	0.0636	28.7	0.0053	<0.0000019	0.0077	0.0028	
RSEM-R6W-EOP	2/12/2021 10:50	ZH8473	M	C109351	4.34	3.58	0.132	0.0015	0.00118	0.0225	<0.0001	<0.001	0.126	<0.00001	27.6	0.0038	<0.0002	0.00108	0.069	<0.0002	0.0679	29.6	0.0048	<0.0000019	0.0077	0.0026	
RSEM-R6W-EOP	2/13/2021 13:00	ZH8990	M	C109471	3.77	3.97	0.114	0.00159	0.00124	0.0217	<0.0001	<0.001	0.116	<0.00001	27.2	0.0041	<0.0002	0.00119	0.065	<0.0002	0.0579	27.3	0.0044	<0.0000019	0.0074	0.0027	
RSEM-R6W-EOP	2/13/2021 13:10	ZH8991	D	C109471	3.83	3.83	0.113	0.00159	0.00119	0.0214	<0.0001	<0.001	0.116	<0.00001	26.7	0.004	<0.0002	0.00117	0.059	<0.0002	0.0575	27.4	0.0043	<0.0000019	0.0073	0.0027	
RSEM-R6W-EOP	2/14/2021 10:00	ZI0121	M	C109675	2.91	3.50	0.132	0.00167	0.00124	0.0215	<0.0001	<0.001	0.119	<0.00001	26.9	0.004	<0.0002	0.00116	0.069	<0.0002	0.0617	29.2	0.0044	<0.0000019	0.0073	0.0028	
RSEM-R6W-EOP	2/15/2021 10:00	ZI0119	M	C109675	3.25	3.43	0.11	0.00185	0.00129	0.0216	<0.0001	<0.001	0.117	<0.00001	25.6	0.0043	<0.0002	0.00117	0.07	<0.0002	0.0606	28.4	0.0039	<0.0000019	0.0072	0.0026	
RSEM-R6W-EOP	2/16/2021 13:40	ZI2026	M	C110128	4.21	3.81	0.107	0.00212	0.00147	0.0218	<0.0001	<0.001	0.12	<0.00001	25.5	0.0046	<0.0002	0.00129	0.082	<0.0002	0.0552	26.4	0.0034	<0.0000019	0.0075	0.0024	
RSEM-R6W-EOP	2/16/2021 13:50	ZI2027	D	C110128	4.00	3.85	0.117	0.00208	0.00145	0.0212	<0.0001	<0.001	0.121	<0.00001	24.9	0.0048	<0.0002	0.00116	0.079	<0.0002	0.0541	26.0	0.0033	<0.0000019	0.0073	0.0023	
RSEM-R6W-EOP	2/17/2021 13:15	ZI1809	M	C110059	5.82	5.17	0.121	0.00228	0.00155	0.0214	<0.0001	<0.001	0.121	<0.00001	24.2	0.0049	<0.0002	0.00118	0.084	<0.0002	0.0555	26.2	0.0032	<0.0000019	0.0075	0.0021	
RSEM-R6W-EOP	2/18/2021 13:50	ZI6453	M	C110759	7.38	7.16	0.145	0.00245	0.00157	0.0215	<0.0001	<0.001	0.114	<0.00001	22.4	0.0045	<0.0002	0.00113	0.076	<0.0002	0.0571	25.1	0.0029	<0.0000019	0.0075	0.0021	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	2/18/2021 14:00	ZI6454	D	C110759	7.41	7.45	0.163	0.00249	0.00158	0.0211	<0.0001	<0.001	0.116	<0.00001	23.3	0.0046	<0.0002	0.00113	0.077	<0.0002	0.0569	25.6	0.0029	<0.0000019	0.0075	0.002	
RSEM-R6W-EOP	2/19/2021 12:55	ZI6371	M	C110747	9.61	8.16	0.175	0.00257	0.00162	0.0224	<0.0001	<0.001	0.115	<0.00001	23.3	0.0046	<0.0002	0.00115	0.079	<0.0002	0.0575	25.6	0.003	<0.0000019	0.0077	0.002	
RSEM-R6W-EOP	2/20/2021 11:10	ZI8653	M	C111165	9.45	9.41	0.167	0.00267	0.00154	0.0231	<0.0001	<0.001	0.114	<0.00001	21.9	0.0042	<0.0002	0.00106	0.079	<0.0002	0.0536	24.7	0.0028	<0.0000019	0.0072	0.0018	
RSEM-R6W-EOP	2/20/2021 11:20	ZI8654	D	C111165	9.86	9.92	0.16	0.00266	0.00155	0.0229	<0.0001	<0.001	0.112	<0.00001	22.8	0.0042	<0.0002	0.00106	0.084	<0.0002	0.0526	24.9	0.0027	<0.0000019	0.0071	0.0018	
RSEM-R6W-EOP	2/21/2021 13:40	ZI8311	M	C111114	8.68	9.31	0.144	0.00268	0.00164	0.0249	<0.0001	<0.001	0.114	<0.00001	23.3	0.0043	<0.0002	0.0011	0.087	<0.0002	0.0543	24.8	0.0036	<0.0000019	0.0074	0.0018	
RSEM-R6W-EOP	2/22/2021 15:40	ZJ0344	M	C111442	8.04	7.90	0.176	0.00252	0.00148	0.0245	<0.0001	<0.001	0.108	<0.00001	25.2	0.004	0.00022	0.00145	0.102	<0.0002	0.0549	24.4	0.0064	<0.0000019	0.0079	0.0026	
RSEM-R6W-EOP	2/25/2021 12:30	ZJ8556	M	C112624	9.21	7.40	0.0821	0.00261	0.00183	0.0258	<0.0001	<0.001	0.115	0.00001	25.0	0.0039	<0.0002	0.00083	0.033	<0.0002	0.0572	23.1	0.0077	<0.0000019	0.0094	0.0022	
RSEM-R6W-EOP	2/26/2021 13:50	ZJ8521	M	C112618	8.45	6.94	0.115	0.00233	0.00158	0.0263	<0.0001	<0.001	0.112	0.000019	25.5	0.0048	0.00033	0.00124	0.081	<0.0002	0.0537	23.8	0.0134	<0.0000019	0.0091	0.0049	
RSEM-R6W-EOP	2/26/2021 14:00	ZJ8522	D	C112618	7.71	7.48	0.115	0.00231	0.00157	0.0259	<0.0001	<0.001	0.112	0.000015	25.4	0.0049	0.00035	0.0012	0.091	<0.0002	0.0521	24.2	0.0137	<0.0000019	0.0091	0.0045	
RSEM-R6W-EOP	2/27/2021 12:30	ZK1993	M	C113050	8.13	8.48	0.158	0.00221	0.00152	0.0248	<0.0001	<0.001	0.121	0.000023	25.1	0.005	0.00041	0.00128	0.089	<0.0002	0.0593	22.8	0.0118	<0.0000019	0.0103	0.0059	
RSEM-R6W-EOP	2/28/2021 12:40	ZK2231	M	C113095	8.73	8.85	0.121	0.00211	0.00149	0.0237	<0.0001	<0.001	0.113	0.000036	25.8	0.0054	0.0005	0.00145	0.074	<0.0002	0.0545	22.8	0.0104	<0.0000019	0.0105	0.0078	
RSEM-R6W-EOP	2/28/2021 12:50	ZK2232	D	C113095	8.50	8.72	0.12	0.00207	0.00146	0.0232	<0.0001	<0.001	0.112	0.00003	25.5	0.0054	0.00049	0.00149	0.078	<0.0002	0.051	22.6	0.0102	<0.0000019	0.0103	0.0079	
RSEM-R6W-EOP	3/1/2021 9:40	ZK1995	M	C113051	3.71	3.69	0.329	0.00085	0.00074	0.107	<0.0001	<0.001	0.058	0.000046	49.5	0.0021	0.00036	0.00128	0.323	0.00022	0.0244	18.1	0.052	0.000003	0.0057	0.0038	
RSEM-R6W-EOP	3/2/2021 15:30	ZK8063	M	C114225	2.43	2.00	0.6	0.00054	0.00078	0.135	<0.0001	<0.001	<0.05	0.000046	56.4	0.0021	0.00047	0.00164	0.866	0.0004	0.0176	16.6	0.115	0.0000031	0.0044	0.0034	
RSEM-R6W-EOP	3/3/2021 15:40	ZK8061	M	C114224	2.37	1.87	0.93	0.00055	0.00089	0.15	<0.0001	<0.001	<0.05	0.000061	59.8	0.0024	0.00057	0.00209	1.29	0.00052	0.0168	16.7	0.134	0.0000041	0.0045	0.0032	
RSEM-R6W-EOP	3/4/2021 14:10	ZL0408	M	C114582	1.68	1.53	0.763	<0.0005	0.00062	0.14	<0.0001	<0.001	<0.05	0.000054	57.2	0.0017	0.00044	0.00163	1.06	0.00043	0.0127	14.8	0.137	0.0000031	0.0034	0.002	
RSEM-R6W-EOP	3/5/2021 12:30	ZL0414	M	C114584	1.97	1.86	1.21	0.00052	0.00097	0.174	<0.0001	<0.001	<0.05	0.000066	55.7	0.0027	0.00069	0.00256	1.61	0.00065	0.0206	17.5	0.146	0.0000038	0.0049	0.0033	
RSEM-R6W-EOP	3/6/2021 9:40	ZL3536	M	C115040	1.72	1.63	0.739	<0.0005	0.00071	0.154	<0.0001	<0.001	<0.05	0.000051	59.0	0.0016	0.00043	0.00143	0.86	0.00039	0.0168	16.3	0.139	0.0000027	0.0043	0.0024	
RSEM-R6W-EOP	3/6/2021 9:50	ZL3534	D	C115040	1.75	1.28	0.758	<0.0005	0.00066	0.15	<0.0001	<0.001	<0.05	0.00005	58.8	0.0016	0.00044	0.0014	0.808	0.00036	0.0168	16.1	0.14	<0.0000019	0.0042	0.0024	
RSEM-R6W-EOP	3/8/2021 12:10	ZL3598	M	C115055	1.74	1.58	0.492	0.00088	0.00066	0.134	<0.0001	<0.001	<0.05	0.000037	57.0	0.0012	0.00035	0.00109	0.644	0.00031	0.0131	15.0	0.141	<0.0000019	0.004	0.0016	
RSEM-R6W-EOP	3/9/2021 14:20	ZL6923	M	C115720	2.01	1.75	0.872	0.00074	0.00057	0.132	<0.0001	<0.001	<0.05	0.000037	53.4	0.0018	0.00035	0.0011	0.56	0.00029	0.0129	14.1	0.121	<0.0000019	0.0038	0.0016	
RSEM-R6W-EOP	3/9/2021 14:30	ZL6924	D	C115720	1.94	1.72	0.879	0.00073	0.00061	0.135	<0.0001	<0.001	<0.05	0.000032	54.8	0.0019	0.00038	0.00115	0.575	0.00029	0.0132	14.6	0.125	<0.0000019	0.0038	0.0017	
RSEM-R6W-EOP	3/10/2021 12:55	ZL8188	M	C115987	1.97	1.80	0.465	0.00063	0.00043	0.106	<0.0001	<0.001	<0.05	0.000021	54.4	0.004	0.0003	0.00088	0.31	<0.0002	0.0124	15.1	0.118	<0.0000019	0.0037	0.0026	
RSEM-R6W-EOP	3/11/2021 12:30	ZL8466	M	C116050	2.28	1.97	0.326	0.00058	0.00041	0.0955	<0.0001	<0.001	<0.05	0.000021	53.4	0.001	0.00025	0.00065	0.159	<0.0002	0.0124	14.8	0.112	<0.0000019	0.0036	0.0015	
RSEM-R6W-EOP	3/11/2021 12:40	ZL8467	D	C116050	2.51	1.98	0.32	0.00057	0.0004	0.0938	<0.0001	<0.001	<0.05	0.000022	52.6	0.001	0.00025	0.00068	0.15	<0.0002	0.0122	14.7	0.112	<0.0000019	0.0034	0.0015	
RSEM-R6W-EOP	3/12/2021 12:25	ZM0345	M	C116306	2.38	1.82	0.0745	0.00058	0.00035	0.0897	<0.0001	<0.001	<0.05	0.000023	53.3	<0.001	0.00023	0.00055	0.071	<0.0002	0.0123	14.8	0.108	<0.0000019	0.0034	0.0016	
RSEM-R6W-EOP	3/13/2021 13:30	ZM2419	M	C116756	2.67	1.93	0.098	0.00062	0.00046	0.0973	<0.0001	<0.001	<0.05	0.000023	53.8	0.0012	0.00029	0.00077	0.219	<0.0002	0.0136	14.6	0.112	<0.0000019	0.0037	0.0019	
RSEM-R6W-EOP	3/13/2021 13:40	ZM2420	D	C116756	2.85	1.99	0.111	0.00061	0.00047	0.0978	<0.0001	<0.001	<0.05	0.000024	53.9	0.0011	0.0003	0.00084	0.253	<0.0002	0.0136	14.6	0.112	<0.0000019	0.0044	0.0018	
RSEM-R6W-EOP	3/14/2021 11:55	ZM2398	M	C116750	3.06	2.10	0.319	0.00063	0.0007	0.104	<0.0001	<0.001	<0.05	0.000044	52.2	0.0016	0.00045	0.00166	0.875	0.00034	0.014	14.2	0.112	0.0000034	0.0039	0.0024	
RSEM-R6W-EOP	3/15/2021 12:00	ZM4115	M	C117045	2.26	1.98	0.777	0.00092	0.00081	0.104	<0.0001	<0.001	<0.05	0.000054	53.1	0.0022	0.00045	0.00217	1.08	0.00047	0.0152	15.1	0.0956	0.0000028	0.0046	0.0025	
RSEM-R6W-EOP	3/16/2021 13:40	ZM5657	M	C117434	2.35	2.24	0.731	0.00086	0.00088	0.0999	<0.0001	<0.001	<0.05	0.00004	51.2	0.0039	0.00045	0.00189	1.11	0.00041	0.0154	14.1	0.0932	0.0000031	0.0049	0.0023	
RSEM-R6W-EOP	3/17/2021 14:30	ZM7319	M	C117752	2.29	1.99	0.3	0.00094	0.00067	0.081	<0.0001	<0.001	<0.05	0.000022	46.8	0.0014	0.00023	0.0009	0.326	<0.0002	0.0132	13.1	0.0678	<0.0000019	0.0051	0.0012	
RSEM-R6W-EOP	3/18/2021 12:50	ZM8874	M	C118063	2.60	2.07	0.318	0.00092	0.00073	0.0874	<0.0001	<0.001	<0.05	0.00003	46.6	0.0017	0.00032	0.0012	0.504	0.00025	0.0131	13.2	0.069	<0.0000019	0.005	0.0014	
RSEM-R6W-EOP	3/19/2021 13:25	ZM8866	M	C118061	2.63	1.81	0.291	0.00088	0.00077	0.0919	<0.0001	<0.001	<0.05	0.000033	47.0	0.0016	0.00034	0.00129	0.495	0.00027	0.0136	13.6	0.0736	<0.0000019	0.0049	0.0014	
RSEM-R6W-EOP	3/20/2021 15:45	ZN1535	M	C118497	2.49	2.64	0.36	0.00077	0.00061	0.0845	<0.0001	<0.001	<0.05	0.000021	42.1	0.0017	0.00024	0.00088	0.276	<0.0002	0.0128	12.5	0.0609	<0.0000019	0.0059	0.0013	
RSEM-R6W-EOP	3/21/2021 12:05	ZN1583	M	C118513	2.24	2.30	0.311	0.00075	0.00053	0.0918	<0.0001	<0.001	<0.05	0.00002	43.4	0.0017	0.00027	0.00086	0.233	<0.0002	0.013	12.6	0.0656	<0.0000019	0.0055	0.0015	
RSEM-R6W-EOP	3/22/2021 11:05	ZN1162	M	C118411	2.31	2.55	0.294	0.0008	0.0005	0.106	<0.0001	<0.001	<0.05	0.000026	44.3	0.0014	0.00033	0.00083	0.403	<0.0002	0.014	12.6	0.07	<0.0000019	0.006	0.0019	
RSEM-R6W-EOP	3/23/2021 13:00	ZN5252	M	C119350	2.27	2.12	0.22	0.00093	0.00057	0.178	<0.0001	<0.001	<0.05	0.000025	46.6	0.0013	0.00034	0.0007	0.147	<0.0002	0.0169	12.7	0.075	<0.0000019	0.0067	0.0024	
RSEM-R6W-EOP	3/24/2021 11:30	ZN5257	M	C119352	1.72	2.08	0.236	0.00092	0.0006	0.181	<0.0001	<0.001	<0.05	0.000023	44.0	0.0013	0.00036	0.00082	0.198	<0.0002	0.0166	12.3	0.064	<0.0000019	0.0064	0.0026	
RSEM-R6W-EOP	3/25/2021 14:30	ZN6325	M	C119610	2.14	2.37	0.456	0.00098	0.00068	0.179	<0.0001	<0.001	<0.05	0.000022	41.7	0.0019	0.00036	0.00088	0.277	0.00022	0.0178	12.4	0.0564	<0.0000019	0.0062	0.0026	
RSEM-R6W-EOP	3/25/2021 15:00	ZN6323	D	C119610	2.32	2.03	0.506	0.00097	0.00068	0.18	<0.0001	<0.001	<0.05	0.00002	39.3	0.0018	0.00038	0.00091	0.28	<0.0002	0.0169	12.1	0.055	<0.0000019	0.0061	0.0026	
RSEM-R6W-EOP	3/26/2021 10:50	ZN6316	M	C119607	1.82	2.35	0.463	0.00142	0.00085	0.297	<0.0001	<0.001	<0.05	0.000013	38.9	0.0017	0.00034	0.0007	0.177	<0.0002	0.0183	11.7	0.0447	<0.0000019	0.0068	0.0022	
RSEM-R6W-EOP	3/27/2021 13:50	ZN9495	M	C120087	1.92	2.16	0.945	0.00148	0.00101	0.289	<0.0001	<0.001	0.053	0.000019	40.9	0.0023	0.00045	0.00103	0.389	0.00026	0.0191	12.1	0.0446	<0.0000019	0.0071	0.0023	
RSEM-R6W-EOP	3/28/2021 10:30	ZN9522	M	C120093	2.17	1.53	0.645	0.00143	0.00093	0.232	<0.0001	<0.001	0.053	0.000015	39.7	0.0021	0.00036	0.00166	0.286	<0.0002	0.0188	12.0	0.0416	<0.0000019	0.007	0.0029	
RSEM-R6W-EOP	3/29/2021 10:50	ZN9581	M	C120108	1.99	2.23	0.421	0.00136	0.00085	0.207	<0.0001	<0.001	0.052	0.000015	40.8	0.002	0.00031	0.00064	0.149	<0.0002	0.019	12.3	0.0377	<0.0000019	0.0067	0.0017	
RSEM-R6W-EOP	3/30/2021 12:55	ZO2681	M	C120790	2.36	2.12	0.434	0.00129	0.00087	0.183	<0.0001	<0.001	<0.05	0.000013	41.3	0.0019	0.00033	0.00069	0.19	<0.0002	0.0182	12.6	0.0361	<0.0000019	0.0064	0.0018	
RSEM-R6W-EOP	3/30/2021 13:05	ZO2682	D	C120790	2.50	2.25	0.432	0.00129	0.00089	0.182	<0.0001	<0.001	<0.05	0.000017	42.3	0.0021	0.00033	0.00069	0.196	<0.0002	0.018	12.7	0.036	<0.0000019	0.0065	0.0018	
RSEM-R6W-EOP	3/31/2021 16:40	ZO4117	M	C121130	2.35	2.46	0.517	0.00133	0.00088	0.181	<0.0001	<0.001	<0.05	0.000012	40.5	0.0022	0.00038	0.00083	0.19	<0.0002	0.0184	12.5	0.0325	<0.0000019	0.0067	0.0019	
RSEM-R6W-EOP	4/1/2021 11:30	ZO4124	M	C121132	2.81	2.54	1.1	0.00147	0.00111	0.205	<0.0001	<0.001	0.05	0.000017	39.2	0.003	0.00048	0.00122	0.462	0.0003	0.0192	12.2	0.0324	<0.0000019	0.0071	0.0023	
RSEM-R6W-EOP	4/2/2021 12:40	ZO4865	M	C121238	3.00	2.96	0.819	0.00158	0.00102	0.188	<0.0001	<0.001	0.057	0.000011	40.3	0.003	0.00052	0.00111	0.385	0.00024	0.0182	11.6	0.0369	<0.0000019	0.0073	0.0027	
RSEM-R6W-EOP	4/3/2021 13:10	ZO6450	M	C121575	3.37	3.25	2.38	0.00248	0.00149	0.401	<0.0001	<0.001	0.069	0.000024	40.0	0.0047	0.00075	0.00298	0.637	0.00037	0.024	13.4	0.035	0.0000021	0.0092	0.0039	
RSEM-R6W-EOP	4/3/2021 13:20	ZO6451	D	C121575	3.19	2.99	2.45	0.00254	0.00158	0.417	<0.0001	<0.001	0.07	0.000021	40.7	0.0047	0.00074	0.00304	0.672	0.0004	0.0251	13.4	0.0352	<0.0000019	0.0092	0.004	
RSEM-R6W-EOP	4/4/2021 12:50	ZO6464	M	C121580	3.15	3.19	1.84	0.0024	0.00142	0.391	<0.0001	<0.001	0.068	0.000022	40.8	0.0041	0.0007	0.00231	0.476	0.0003	0.0238	13.1	0.0363	<0.0000019	0.0093	0.0038	
RSEM-R6W-EOP	4/5/2021 12:50	ZO7518	M	C121801	2.57	2.38	1.3	0.00183	0.00125	0.273	<0.0001	<0.001	0.059	0.000022	40.7	0.0035	0.00064	0.00162	0.491	0.00026	0.0217	11.9	0.036	<0.0000019	0.0083	0.0035	
RSEM-R6W-EOP	4/6/2021 14:30	ZO9475	M	C122250	2.61	3.04	1.03	0.00164	0.00135	0.251	<0.0001	<0.001	0.053	0.000024	41.7	0.0034	0.00062	0.00142	0.53	0.00027	0.0213	12.4	0.0385	0.0000021	0.0086	0.0033	
RSEM-R6W-EOP	4/7/2021 14:40	ZP0881	M	C122580	3.10	2.78	0.681	0.0016	0.00146	0.291	<0.0001	<0.001	0.052	0.000021	38.8	0.0029	0.00056	0.00137	0.442	0.00038	0.0175	11.7	0.0312	<0.0000019	0.0087	0.0028	
RSEM-R6W-EOP	4/7/2021 14:50	ZP0882	D	C122580	3.08	2.84	0.64	0.00162	0.0015	0.298	<0.0001	<0.001	0.052	0.000021	40.4	0.0029	0.00055	0.00143	0.449	0.00033	0.0177	12.1	0.0315	<0.0000019	0.009	0.003	
RSEM-R6W-EOP	4/8/2021 12:10	ZP1743	M	C122796	3.24	2.69	0.341	0.0016	0.0013	0.299	<0.0001	<0.001	0.053	0.000012	38.5	0.0023	0.00046	0.00113	0.265	0.00022	0.0189	11.4	0.0281	<0.0000019	0.0084	0.0026	
RSEM-R6W-EOP	4/9/2021 13:00	ZP1762	M	C122801	3.70	2.74	0.378	0.00165	0.0013	0.363	<0.0001	<0.001	0.054	0.000014	38.5	0.0025	0.00048	0.00131	0.305	0.00023	0.0193	11.0	0.0274	<0.0000019	0.0081	0.0026	
RSEM-R6W-EOP	4/9/2021 13:10	ZP1763	D	C122801	4.37	2.75	0.336	0.00161	0.00127	0.364	<0.0001	<0.001	0.053	0.000016	38.5	0.0024	0.00049	0.00147	0.297	0.00024	0.0191	10.9	0.0275	<0.0000019	0.0081	0.0027	
RSEM-R6W-EOP	4/10/2021 10:50	ZP3594	M	C123204	2.27	2.75	0.845	0.00161	0.00105	0.331	<0.0001	<0.001	0.055	0.000022	40.3	0.0025	0.00063	0.00141	0.3	0.00022	0.0196	11.6	0.0341	<0.0000019	0.0077	0.0036	
RSEM-R6W-EOP	4/11/2021 12:50	ZP3858	M	C123260	2.74	3.03	0.808	0.00166	0.00128	0.424	<0.0001	<0.001	0.062	0.000022	40.9	0.0028	0.00059	0.00132	0.466	0.00031	0.0223	12.2	0.0369	<0.0000019	0.0081	0.0027	
RSEM-R6W-EOP	4/12/2021 10:30	ZP3854	M	C123259	2.79	2.48	0.898	0.00142	0.00098	0.38	<0.0001	<0.001	0.054	0.000018	41.0	0.0024	0.00058	0.00145	0.415	0.00028	0.0201	11.7	0.031	<0.0000019	0.0072	0.0036	
RSEM-R6W-EOP	4/13/2021 11:45	ZP9471	M	C124396	2.53	2.59	0.602	0.00172	0.00155	0.839	<0.0001	<0.001	0.068	0.000029	38.2	0.002	0.00059	0.00168	0.603	0.00048	0.0237	11.3	0.03	<0.0000019	0.0086	0.0027	
RSEM-R6W-EOP	4/14/2021 18:50	ZP9474	M	C124397	2.48	2.82	0.762	0.00152	0.00166	0.615	<0.0001	<0.001	0.063	0.000021	42.0	0.0022	0.00074	0.00184	0.729	0.0006	0.0245	12.2	0.0347	<0.0000019	0.0081	0.0032	
RSEM-R6W-EOP	4/17/2021 11:40	ZQ3725	M	C125158	2.13	2.04	0.947	0.00134	0.00124	0.319	<0.0001	<0.001	0.052	0.000015	44.7	0.0021	0.00052	0.00081	0.339	0.00024	0.0217	12.7	0.0379	<0.0000019	0.0063	0.0024	
RSEM-R6W-EOP	4/18/2021 10:30	ZQ3726	M	C125158	2.14	1.53	1.34	0.00143	0.00144	0.362	<0.0001	<0.001	0.055	0.000013	44.5	0.0027	0.00059	0.00085	0.407	0.00028	0.0211	12.4	0.0352	<0.0000019	0.0066	0.0024	
RSEM-R6W-EOP	4/19/2021 12:35	ZQ5795	M	C125554	1.91	1.61	1.08	0.00236	0.00222	0.679	<0.0001	<0.001	0.067	<0.00001	38.0	0.0024	0.00048	0.00075	0.329	0.00024	0.0202	11.1	0.0239	<0.0000019	0.0083	0.0021	
RSEM-R6W-EOP	4/20/2021 10:30	ZQ9981	M	C126323	1.64	1.65	1.02	0.00247	0.00252	0.734	<0.0001	<0.001	0.068	<0.00001	38.5	0.0028	0.0005	0.00078	0.431	0.00033	0.0216	10.7	0.022	0.0000025	0.0084	0.0022	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	4/21/2021 10:00	ZQ9982	M	C126323	1.51	1.65	0.982	0.0023	0.00258	0.664	<0.0001	<0.001	0.069	0.000015	39.1	0.0026	0.00065	0.0012	0.667	0.00047	0.022	11.2	0.0286	0.0000026	0.008	0.0025	
RSEM-R6W-EOP	4/22/2021 9:30	ZR1313	M	C126529	1.80	1.40	0.491	0.00229	0.00249	0.695	<0.0001	<0.001	0.072	0.000011	36.4	0.0018	0.00059	0.00102	0.412	0.00038	0.0205	10.8	0.0222	0.0000022	0.0076	0.0022	
RSEM-R6W-EOP	4/23/2021 9:30	ZR1314	M	C126529	1.44	1.36	0.422	0.00204	0.00221	0.605	<0.0001	<0.001	0.068	<0.00001	36.3	0.0018	0.00054	0.00085	0.306	0.00029	0.0187	11.1	0.0228	0.0000021	0.007	0.0019	
RSEM-R6W-EOP	4/24/2021 3:00	ZR4688	M	C127059	1.31	1.35	0.991	0.00171	0.00177	0.521	<0.0001	<0.001	0.059	0.000012	36.8	0.0022	0.00056	0.00077	0.41	0.00029	0.0193	10.6	0.0263	0.0000028	0.0067	0.0021	
RSEM-R6W-EOP	4/25/2021 14:15	ZR4686	M	C127059	1.61	2.02	0.899	0.0015	0.00163	0.395	<0.0001	<0.001	0.059	0.000011	37.9	0.0021	0.0006	0.00088	0.421	0.00027	0.0196	11.1	0.0274	<0.0000019	0.0063	0.0022	
RSEM-R6W-EOP	4/26/2021 10:30	ZR5705	M	C127281	1.84	1.52	0.557	0.0014	0.00145	0.306	<0.0001	<0.001	0.059	0.00001	35.7	0.0065	0.00054	0.00063	0.221	<0.0002	0.0194	11.4	0.0273	0.0000038	0.0117	0.0234	
RSEM-R6W-EOP	4/27/2021 15:45	ZR7959	M	C127704	1.34	1.36	0.51	0.00127	0.00128	0.246	<0.0001	<0.001	0.064	<0.00001	41.0	0.0052	0.00059	0.00064	0.253	<0.0002	0.018	11.6	0.0317	<0.0000019	0.0097	0.0178	
RSEM-R6W-EOP	4/28/2021 12:20	ZS0313	M	C128230	1.17	1.16	0.289	0.00105	0.00105	0.221	<0.0001	<0.001	0.051	<0.00001	41.0	0.0012	0.00058	0.00062	0.169	<0.0002	0.0151	11.0	0.0333	0.000002	0.0055	0.0023	
RSEM-R6W-EOP	4/28/2021 12:30	ZS0314	D	C128230	1.47	1.63	0.278	0.001	0.00102	0.212	<0.0001	<0.001	<0.05	<0.00001	38.7	0.0012	0.00058	0.00058	0.161	<0.0002	0.014	10.6	0.033	0.0000022	0.0054	0.0023	
RSEM-R6W-EOP	4/29/2021 10:30	ZS2293	M	C128584	1.45	1.44	0.83	0.00123	0.00124	0.228	<0.0001	<0.001	0.055	<0.00001	39.2	0.002	0.0006	0.00064	0.21	<0.0002	0.0154	10.9	0.0295	<0.0000019	0.0065	0.0025	
RSEM-R6W-EOP	4/30/2021 10:45	ZS2247	M	C128573	2.82	2.33	1.06	0.00151	0.00161	0.219	<0.0001	<0.001	0.064	<0.00001	38.3	0.0032	0.0006	0.00084	0.341	0.00021	0.0175	11.1	0.0271	<0.0000019	0.0076	0.0046	
RSEM-R6W-EOP	4/30/2021 10:55	ZS2248	D	C128573	2.58	2.31	1.02	0.00156	0.00159	0.224	<0.0001	<0.001	0.061	<0.00001	39.1	0.0031	0.00059	0.00082	0.353	0.00022	0.017	11.1	0.0269	0.0000022	0.0073	0.0025	
RSEM-R6W-EOP	5/1/2021 10:40	ZS6051	M	C129102	2.05	2.04	0.432	0.00141	0.00138	0.194	<0.0001	<0.001	0.061	<0.00001	36.6	0.0021	0.00047	0.00056	0.146	<0.0002	0.019	10.6	0.0228	<0.0000019	0.0066	0.0022	
RSEM-R6W-EOP	5/2/2021 12:30	ZS6044	M	C129102	1.81	1.93	0.207	0.00115	0.00109	0.181	<0.0001	<0.001	0.052	<0.00001	38.5	0.0138	0.00048	<0.0005	0.057	<0.0002	0.0147	10.5	0.025	<0.0000019	0.02	0.0571	
RSEM-R6W-EOP	5/2/2021 12:40	ZS6046	D	C129102	1.79	1.73	0.219	0.00116	0.00111	0.184	<0.0001	<0.001	0.052	<0.00001	37.0	0.0039	0.00046	<0.0005	0.064	<0.0002	0.0148	10.5	0.0249	<0.0000019	0.0087	0.0133	
RSEM-R6W-EOP	5/3/2021 10:25	ZS6022	M	C129096	1.58	1.55	0.789	0.00143	0.00185	0.275	<0.0001	<0.001	0.063	<0.00001	34.8	0.0191	0.00076	0.00108	0.296	0.00028	0.0177	9.83	0.0231	<0.0000019	0.0291	0.0769	
RSEM-R6W-EOP	5/4/2021 13:50	ZS9946	M	C129944	2.12	1.43	0.45	0.00151	0.0019	0.238	<0.0001	<0.001	0.07	<0.00001	36.5	0.0024	0.00071	0.00108	0.292	0.00027	0.0214	11.3	0.0243	0.0000038	0.0091	0.0024	
RSEM-R6W-EOP	5/5/2021 12:30	ZT3123	M	C130491	1.20	1.36	1.06	0.00158	0.00182	0.192	<0.0001	<0.001	0.075	<0.00001	36.5	0.0036	0.00069	0.00095	0.297	0.00025	0.0244	11.8	0.0244	<0.0000019	0.0088	0.0043	
RSEM-R6W-EOP	5/6/2021 15:00	ZT3104	M	C130484	1.38	1.49	1.33	0.00149	0.00192	0.188	<0.0001	<0.001	0.08	<0.00001	36.4	0.0082	0.00085	0.00117	0.471	0.00038	0.0274	12.1	0.0291	<0.0000019	0.013	0.0219	
RSEM-R6W-EOP	5/7/2021 11:00	ZT3094	M	C130477	1.52	1.44	1.27	0.00159	0.00206	0.2	<0.0001	<0.001	0.082	<0.00001	36.6	0.0173	0.00083	0.00117	0.446	0.00035	0.0278	12.4	0.0252	<0.0000019	0.0237	0.0609	
RSEM-R6W-EOP	5/8/2021 12:30	ZT6587	M	C130995	1.49	1.74	1.14	0.00147	0.00187	0.175	<0.0001	<0.001	0.083	0.000012	34.7	0.0033	0.00073	0.00103	0.369	0.00027	0.0274	11.9	0.023	0.0000022	0.0076	0.0026	
RSEM-R6W-EOP	5/9/2021 13:10	ZT6967	M	C131057	1.34	1.57	1.06	0.00156	0.00188	0.177	<0.0001	<0.001	0.084	0.000013	36.7	0.0032	0.00068	0.00093	0.327	0.00023	0.027	12.9	0.0225	<0.0000019	0.0086	0.0031	
RSEM-R6W-EOP	5/10/2021 5:30	ZT6908	M	C131048	1.26	1.55	0.822	0.00139	0.00162	0.163	<0.0001	<0.001	0.079	<0.00001	36.1	0.0031	0.00061	0.00077	0.248	0.00023	0.0256	12.6	0.0219	<0.0000019	0.0084	0.0047	
RSEM-R6W-EOP	5/11/2021 10:50	ZU0198	M	C131591	1.67	1.53	0.92	0.00134	0.0015	0.172	<0.0001	<0.001	0.079	<0.00001	39.8	0.0025	0.0007	0.00098	0.285	0.00022	0.0266	13.4	0.0257	<0.0000019	0.0076	0.0024	
RSEM-R6W-EOP	5/12/2021 11:00	ZU2125	M	C131927	1.24	1.63	0.832	0.00109	0.00131	0.159	<0.0001	<0.001	0.069	<0.00001	36.7	0.0021	0.00062	0.00078	0.241	<0.0002	0.0234	11.8	0.0249	<0.0000019	0.0065	0.0021	
RSEM-R6W-EOP	5/13/2021 10:40	ZU4937	M	C132324	1.09	<0.50	0.766	0.00113	0.00135	0.165	<0.0001	<0.001	0.069	<0.00001	35.8	0.0021	0.00061	0.00175	0.221	<0.0002	0.0218	11.6	0.0243	<0.0000019	0.0063	0.0019	
RSEM-R6W-EOP	5/14/2021 10:10	ZU4952	M	C132327	1.39	1.37	0.585	0.00107	0.00121	0.164	<0.0001	<0.001	0.067	<0.00001	38.9	0.0019	0.0006	0.00083	0.205	<0.0002	0.0208	12.9	0.0243	<0.0000019	0.0058	0.0021	
RSEM-R6W-EOP	5/15/2021 14:40	ZU7899	M	C132915	1.96	1.35	0.868	0.0012	0.00124	0.152	<0.0001	<0.001	0.067	<0.00001	40.1	0.0023	0.00054	0.00082	0.262	<0.0002	0.0211	15.0	0.0206	0.0000023	0.0057	0.0024	
RSEM-R6W-EOP	5/15/2021 14:50	ZU7900	D	C132915	1.21	1.59	0.838	0.00124	0.00127	0.156	<0.0001	<0.001	0.07	<0.00001	41.1	0.0022	0.00055	0.00082	0.28	<0.0002	0.022	15.3	0.021	0.000003	0.0059	0.0025	
RSEM-R6W-EOP	5/16/2021 14:30	ZU7831	M	C132904	1.73	1.32	0.509	0.00123	0.00124	0.154	<0.0001	<0.001	0.069	<0.00001	42.2	0.0017	0.0005	0.00079	0.173	<0.0002	0.0217	15.9	0.0181	<0.0000019	0.0058	0.0024	
RSEM-R6W-EOP	5/17/2021 16:00	ZU9399	M	C133243	1.30	0.79	0.393	0.00104	0.001	0.141	<0.0001	<0.001	0.061	<0.00001	40.9	0.0013	0.00046	0.00064	0.142	<0.0002	0.0186	15.0	0.0186	<0.0000019	0.0049	0.0023	
RSEM-R6W-EOP	5/17/2021 16:10	ZU9400	D	C133243	1.13	1.33	0.412	0.00104	0.00101	0.144	<0.0001	<0.001	0.061	<0.00001	41.6	0.0015	0.00048	0.00071	0.152	<0.0002	0.0187	15.5	0.0188	<0.0000019	0.0051	0.0024	
RSEM-R6W-EOP	5/18/2021 16:30	ZV2802	M	C133850	1.56	1.57	0.384	0.00125	0.00147	0.148	<0.0001	<0.001	0.071	<0.00001	41.9	0.0018	0.00062	0.00114	0.38	0.00029	0.0207	14.7	0.0202	<0.0000019	0.0068	0.0026	
RSEM-R6W-EOP	5/19/2021 13:50	ZV3575	M	C134016	1.52	1.41	0.271	0.00162	0.00169	0.156	<0.0001	<0.001	0.08	<0.00001	41.5	0.0023	0.00047	0.00083	0.187	0.00036	0.0237	15.4	0.0138	<0.0000019	0.0088	0.0022	
RSEM-R6W-EOP	5/20/2021 12:10	ZV5699	M	C134406	1.48	1.42	0.281	0.00151	0.00129	0.142	<0.0001	<0.001	0.078	<0.00001	43.4	0.0023	0.00033	0.0007	0.125	<0.0002	0.0246	17.4	0.0114	<0.0000019	0.0078	0.0021	
RSEM-R6W-EOP	5/21/2021 11:00	ZV5659	M	C134400	1.19	1.35	0.181	0.0014	0.00115	0.132	<0.0001	<0.001	0.077	<0.00001	45.1	0.0022	0.00032	0.00077	0.133	<0.0002	0.0243	18.4	0.0111	<0.0000019	0.0069	0.0022	
RSEM-R6W-EOP	5/21/2021 11:10	ZV5660	D	C134400	1.32	1.33	0.291	0.00138	0.00111	0.13	<0.0001	<0.001	0.074	<0.00001	45.5	0.0022	0.00032	0.00075	0.181	<0.0002	0.0237	17.9	0.0111	<0.0000019	0.0069	0.0022	
RSEM-R6W-EOP	5/22/2021 11:30	ZV6994	M	C134601	1.14	1.58	0.125	0.00128	0.00101	0.116	<0.0001	<0.001	0.074	<0.00001	45.1	0.002	0.00032	0.00066	0.089	<0.0002	0.0244	18.3	0.0119	<0.0000019	0.0064	0.0023	
RSEM-R6W-EOP	5/23/2021 14:20	ZV8624	M	C134923	1.62	1.30	0.118	0.00123	0.00103	0.118	<0.0001	<0.001	0.073	<0.00001	42.5	0.0022	0.00028	0.00067	0.072	<0.0002	0.0243	17.3	0.0104	<0.0000019	0.0067	0.0021	
RSEM-R6W-EOP	5/23/2021 14:30	ZV8625	D	C134923	1.74	1.39	0.177	0.00127	0.00107	0.126	<0.0001	<0.001	0.077	<0.00001	44.4	0.0024	0.00029	0.00075	0.095	<0.0002	0.0248	18.3	0.011	<0.0000019	0.0069	0.0022	
RSEM-R6W-EOP	5/24/2021 11:50	ZW1262	M	C135427	0.84	1.27	0.108	0.00114	0.00106	0.103	<0.0001	<0.001	0.073	<0.00001	40.2	0.0024	0.00028	0.0007	0.085	<0.0002	0.0234	15.7	0.013	<0.0000019	0.0071	0.0019	
RSEM-R6W-EOP	5/25/2021 9:30	ZW1243	M	C135423	1.65	1.25	0.122	0.00104	0.00113	0.0946	<0.0001	<0.001	0.07	<0.00001	37.7	0.0025	0.00034	0.00087	0.13	<0.0002	0.023	13.6	0.0169	<0.0000019	0.0074	0.0018	
RSEM-R6W-EOP	5/26/2021 12:00	ZW4842	M	C136104	1.62	1.06	1.05	0.0016	0.00218	0.134	<0.0001	<0.001	0.097	0.000011	36.1	0.0038	0.00054	0.00099	0.347	0.00027	0.031	12.8	0.0151	<0.0000019	0.0126	0.0021	
RSEM-R6W-EOP	5/27/2021 11:10	ZW4835	M	C136103	1.69	1.96	0.202	0.00155	0.0018	0.121	<0.0001	<0.001	0.097	0.000014	43.6	0.0026	0.00053	0.00086	0.151	<0.0002	0.0292	15.8	0.0196	<0.0000019	0.0095	0.0024	
RSEM-R6W-EOP	5/28/2021 13:15	ZW4301	M	C136040	1.49	1.12	0.366	0.00125	0.00138	0.105	<0.0001	<0.001	0.091	<0.00001	43.9	0.0025	0.00044	0.00075	0.136	<0.0002	0.0302	16.5	0.0166	<0.0000019	0.0094	0.0024	
RSEM-R6W-EOP	5/29/2021 11:00	ZW9128	M	C136816	1.59	1.65	0.233	0.00128	0.00131	0.1	<0.0001	<0.001	0.096	0.000011	44.8	0.0021	0.00041	0.00072	0.096	<0.0002	0.0317	17.0	0.0158	<0.0000019	0.0092	0.0023	
RSEM-R6W-EOP	5/30/2021 10:00	ZW9155	M	C136825	1.61	0.79	0.126	0.00121	0.00125	0.0933	<0.0001	<0.001	0.09	<0.00001	41.2	0.0021	0.00038	0.00074	0.087	<0.0002	0.0299	16.0	0.0137	<0.0000019	0.0085	0.0023	
RSEM-R6W-EOP	5/31/2021 6:20	ZW9168	M	C136832	1.37	1.58	0.152	0.00119	0.00121	0.0919	<0.0001	<0.001	0.089	0.000014	40.3	0.002	0.00034	0.00069	0.082	<0.0002	0.0291	15.3	0.0119	<0.0000019	0.0079	0.0021	
RSEM-R6W-EOP	6/1/2021 10:45	ZX3967	M	C137816	1.41	1.11	0.188	0.0011	0.00121	0.105	<0.0001	<0.001	0.082	<0.00001	43.2	0.0018	0.00033	0.00074	0.159	<0.0002	0.0266	14.7	0.0136	<0.0000019	0.007	0.002	
RSEM-R6W-EOP	6/1/2021 10:55	ZX3968	D	C137816	1.59	1.15	0.206	0.00113	0.00111	0.108	<0.0001	<0.001	0.086	<0.00001	43.3	0.0019	0.00033	0.00076	0.138	<0.0002	0.0267	14.8	0.0139	<0.0000019	0.0073	0.002	
RSEM-R6W-EOP	6/2/2021 13:25	ZX5271	M	C138096	1.55	1.33	0.167	0.0012	0.0012	0.105	<0.0001	<0.001	0.095	<0.00001	40.3	0.0024	0.00031	0.00075	0.115	<0.0002	0.0294	13.9	0.0113	<0.0000019	0.0078	0.0018	
RSEM-R6W-EOP	6/3/2021 11:30	ZX7148	M	C138404	1.39	1.33	0.221	0.00134	0.00122	0.104	<0.0001	<0.001	0.095	<0.00001	41.4	0.0029	0.00031	0.00078	0.134	<0.0002	0.0341	14.4	0.0111	<0.0000019	0.0081	0.0018	
RSEM-R6W-EOP	6/3/2021 11:40	ZX7149	D	C138404	1.39	1.35	0.151	0.00141	0.00122	0.107	<0.0001	<0.001	0.096	<0.00001	41.0	0.0028	0.00032	0.00078	0.114	<0.0002	0.0333	15.0	0.0114	<0.0000019	0.0084	0.0018	
RSEM-R6W-EOP	6/4/2021 12:30	ZX6907	M	C138357	1.60	1.52	0.181	0.00119	0.00107	0.115	<0.0001	<0.001	0.089	<0.00001	41.8	0.0022	0.00028	0.00078	0.107	<0.0002	0.0292	14.0	0.0102	<0.0000019	0.0071	0.0016	
RSEM-R6W-EOP	6/5/2021 11:00	ZY0222	M	C138844	1.59	1.29	0.211	0.00099	0.00096	0.12	<0.0001	<0.001	0.083	<0.00001	40.6	0.0017	0.00029	0.00069	0.099	<0.0002	0.0241	14.1	0.0112	<0.0000019	0.0057	0.0016	
RSEM-R6W-EOP	6/6/2021 10:50	ZY0253	M	C138850	1.24	1.09	0.185	0.0008	0.00082	0.117	<0.0001	<0.001	0.074	<0.00001	40.0	0.0013	0.0003	0.00071	0.12	<0.0002	0.0212	13.3	0.0117	<0.0000019	0.0047	0.0015	
RSEM-R6W-EOP	6/7/2021 11:10	ZY3089	M	C139476	<2.5	1.11	0.118	0.00064	0.0007	0.119	<0.0001	<0.001	0.07	0.000013	41.8	<0.001	0.00031	0.00083	0.128	<0.0002	0.0172	12.3	0.0122	<0.0000019	0.0041	0.0015	
RSEM-R6W-EOP	6/8/2021 11:40	ZY5039	M	C139835	1.75	1.12	0.548	0.00074	0.00085	0.128	<0.0001	<0.001	0.075	<0.00001	43.5	0.0012	0.00039	0.00084	0.262	<0.0002	0.0205	15.5	0.0148	<0.0000019	0.0044	0.002	
RSEM-R6W-EOP	6/9/2021 13:50	ZY6854	M	C140198	1.49	1.20	0.356	0.00079	0.00083	0.125	<0.0001	<0.001	0.074	<0.00001	44.0	0.0013	0.00036	0.0008	0.2	<0.0002	0.021	15.6	0.0119	0.0000023	0.0047	0.002	
RSEM-R6W-EOP	6/10/2021 12:05	ZY8800	M	C140527	1.63	<2.5	0.231	0.00095	0.00094	0.121	<0.0001	<0.001	0.077	<0.00001	41.5	0.0018	0.00031	0.00077	0.152	<0.0002	0.0218	13.4	0.0111	<0.0000019	0.0054	0.0017	
RSEM-R6W-EOP	6/11/2021 14:20	ZY9644	M	C140675	1.32	1.12	0.141	0.00099	0.00092	0.118	<0.0001	<0.001	0.082	<0.00001	41.5	0.0016	0.00029	0.00077	0.097	<0.0002	0.0228	13.0	0.0101	<0.0000019	0.0057	0.0015	
RSEM-R6W-EOP	6/12/2021 10:25	ZZ1989	M	C141056	1.40	1.89	0.261	0.00089	0.00089	0.113	<0.0001	<0.001	0.078	<0.00001	41.0	0.0017	0.00028	0.00071	0.119	<0.0002	0.0227	13.6	0.0105	<0.0000019	0.0053	0.0016	
RSEM-R6W-EOP	6/13/2021 14:15	ZZ1994	M	C141057	<2.5	1.96	0.259	0.0009	0.00085	0.111	<0.0001	<0.001	0.08	<0.00001	42.1	0.0017	0.00028	0.00073	0.119	<0.0002	0.0229	13.7	0.0098	<0.0000019	0.0051	0.0016	
RSEM-R6W-EOP	6/13/2021 14:25	ZZ1995	D	C141057	1.37	1.50	0.319	0.0009	0.00082	0.108	<0.0001	<0.001	0.077	0.000015	41.9	0.0018	0.00028	0.00074	0.13	<0.0002	0.0225	13.5	0.0099	<0.0000019	0.005	0.0016	
RSEM-R6W-EOP	6/14/2021 10:40	ZZ2010	M	C141059	1.55	1.64	0.3	0.00092	0.00085	0.117	<0.0001	<0.001	0.078	<0.00001	40.8	0.0019	0.00028	0.00071	0.121	<0.0002	0.0227	13.4	0.0105	<0.0000019	0.005	0.0015	
RSEM-R6W-EOP	6/15/2021 11:40	AAB014	M	C142607	<2.5	1.86	0.298	0.00087	0.00071	0.118	<0.0001	<0.001	0.068	<0.00001	41.6	0.0017	0.00026	0.00064	0.122	<0.0002	0.0192	12.2	0.0105	<0.0000019	0.0046	0.0014	
RSEM-R6W-EOP	6/16/2021 12:20	AAB003	M	C142604	4.5	1.70	0.187	0.00076	0.00069	0.132	<0.0001	<0.001	0.065	<0.00001	40.3	0.0013	0.00026	0.0008	0.128	<0.0002	0.0186	12.2	0.012	<0.0000019	0.0041	0.0014	
RSEM-R6W-EOP	6/17/2021 11:20	AAC474	M	C142866	2.16	1.82	0.711	0.00109	0.0011	0.14	<0.0001	<0.001	0.097	<0.00001	43.9	0.002	0.00041	0.00109	0.416	0.00032	0.0254	12.9	0.0171	0.0000037	0.0073	0.0018	
RSEM-R6W-EOP	6/18/2021 12:20	AAC476	M	C142867	2.20	1.77	0.418	0.00143	0.00106	0.125	<0.0001	<0.001	0.114	<0.00001	42.2	0.0027	0.00033	0.00085	0.197	<0.0002	0.0322	13.0	0.0131	0.0000042	0.0086	0.0015	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	6/19/2021 11:20	AAF585	M	C143352	2.24	1.98	0.184	0.00137	0.00103	0.104	<0.0001	<0.001	0.111	<0.00001	46.1	0.0052	0.00035	0.00094	0.16	<0.0002	0.0322	13.8	0.0107	0.0000028	0.0075	0.0025	
RSEM-R6W-EOP	6/20/2021 10:30	AAF490	M	C143330	1.65	1.42	0.14	0.0012	0.00078	0.123	<0.0001	<0.001	0.096	<0.00001	42.5	0.0024	0.00022	0.00061	0.06	<0.0002	0.0284	12.3	0.0098	<0.0000019	0.0062	0.0014	
RSEM-R6W-EOP	6/21/2021 6:00	AAF561	M	C143340	1.83	2.00	0.169	0.00108	0.00072	0.128	<0.0001	<0.001	0.085	<0.00001	42.2	0.0025	0.00021	0.00063	0.081	<0.0002	0.0253	12.0	0.0092	0.0000019	0.0055	0.0019	
RSEM-R6W-EOP	6/22/2021 14:25	AAL816	M	C144319	1.81	1.73	0.076	0.00076	0.00061	0.111	<0.0001	<0.001	0.069	<0.00001	42.7	0.0016	0.00021	0.00067	0.062	<0.0002	0.0188	10.5	0.0108	<0.0000019	0.004	0.0013	
RSEM-R6W-EOP	6/23/2021 14:35	AAO113	M	C144722	1.50	1.48	0.129	0.00064	0.00052	0.108	<0.0001	<0.001	0.06	<0.00001	44.2	0.0013	0.00026	0.00081	0.147	<0.0002	0.0212	11.6	0.0131	<0.0000019	0.0036	0.0014	
RSEM-R6W-EOP	6/23/2021 14:45	AAO114	D	C144722	1.41	1.30	0.135	0.00065	0.00052	0.109	<0.0001	<0.001	0.057	<0.00001	44.2	0.0014	0.00026	0.00162	0.147	<0.0002	0.021	11.5	0.0129	<0.0000019	0.0036	0.002	
RSEM-R6W-EOP	6/24/2021 14:45	AAQ176	M	C144970	<2.5	1.46	0.207	0.00059	0.00053	0.117	<0.0001	<0.001	0.054	0.000014	41.7	0.0012	0.00032	0.00071	0.172	<0.0002	0.0164	10.2	0.0126	<0.0000019	0.003	0.0015	
RSEM-R6W-EOP	6/25/2021 13:10	AAQ537	M	C144894	1.71	1.63	0.187	<0.0005	0.00045	0.116	<0.0001	<0.001	<0.05	0.000015	50.2	0.001	0.00033	0.00085	0.166	<0.0002	0.023	14.0	0.0145	<0.0000019	0.0028	0.0016	
RSEM-R6W-EOP	6/25/2021 13:10	AAP487	D	C144894	1.6	1.72	0.136	<0.0005	0.0004	0.11	<0.0001	<0.001	<0.05	0.000014	48.9	<0.001	0.00032	0.00089	0.133	<0.0002	0.0226	13.7	0.014	<0.0000019	0.0027	0.0035	
RSEM-R6W-EOP	6/26/2021 14:35	AAU431	M	C145599	<2.5	1.48	0.0965	<0.0005	0.00043	0.114	<0.0001	<0.001	<0.05	<0.00001	43.8	<0.001	0.00025	0.00075	0.099	<0.0002	0.0124	10.0	0.0124	0.0000023	0.0026	0.0012	
RSEM-R6W-EOP	6/27/2021 13:20	AAU317	M	C145583	1.61	1.29	0.0945	<0.0005	0.0004	0.105	<0.0001	<0.001	<0.05	0.000012	44.5	<0.001	0.00024	0.00084	0.088	<0.0002	0.0132	9.90	0.0132	<0.0000019	0.0027	0.0014	
RSEM-R6W-EOP	6/27/2021 13:30	AAU318	D	C145583	1.7	1.35	0.0748	<0.0005	0.0004	0.108	<0.0001	<0.001	<0.05	<0.00001	42.2	<0.001	0.00022	0.00079	0.069	<0.0002	0.0131	10.1	0.0132	0.0000035	0.0028	0.0012	
RSEM-R6W-EOP	6/28/2021 13:35	AAX135	M	C146134	1.43	1.94	0.128	0.00056	0.00044	0.109	<0.0001	<0.001	0.051	<0.00001	43.5	0.0013	0.00028	0.00084	0.14	<0.0002	0.0148	10.2	0.0146	<0.0000019	0.0031	0.0016	
RSEM-R6W-EOP	6/29/2021 15:10	AAZ026	M	C146532	1.68	1.46	0.082	<0.0005	0.00046	0.107	<0.0001	<0.001	<0.05	<0.00001	44.8	0.0011	0.00023	0.00065	0.071	<0.0002	0.0148	10.7	0.0141	<0.0000019	0.0029	0.0023	
RSEM-R6W-EOP	6/30/2021 10:50	AAZ000	M	C146528	1.52	1.27	0.0591	<0.0005	0.00043	0.102	<0.0001	<0.001	<0.05	0.000011	45.3	0.0013	0.00021	0.00064	0.077	<0.0002	0.0129	10.9	0.0144	<0.0000019	0.0028	0.002	
RSEM-R6W-EOP	6/30/2021 11:00	AAZ001	D	C146528	1.39	1.34	0.0471	<0.0005	0.00046	0.103	<0.0001	<0.001	<0.05	<0.00001	45.5	0.0025	0.00022	0.00062	0.049	<0.0002	0.0135	11.4	0.0143	<0.0000019	0.0028	0.0027	
RSEM-R6W-EOP	7/1/2021 15:00	ABB250	M	C146903	<2.5	1.32	0.0633	<0.0005	0.00051	0.096	<0.0001	<0.001	<0.05	<0.00001	43.5	<0.001	<0.0002	0.00062	0.049	<0.0002	0.0143	10.9	0.014	<0.0000019	0.0028	<0.001	
RSEM-R6W-EOP	7/2/2021 12:10	ABB258	M	C146905	<2.5	1.62	0.0784	0.00053	0.0005	0.098	<0.0001	<0.001	<0.05	0.000012	43.2	0.0014	<0.0002	0.0006	0.063	<0.0002	0.0152	10.2	0.0137	<0.0000019	0.003	0.0015	
RSEM-R6W-EOP	7/2/2021 12:20	ABB260	D	C146905	<1.0	1.66	0.123	0.00054	0.00052	0.102	<0.0001	<0.001	<0.05	0.00001	49.6	0.0013	0.00022	0.0007	0.101	<0.0002	0.0158	11.0	0.0141	<0.0000019	0.0031	0.0018	
RSEM-R6W-EOP	7/3/2021 10:30	ABE024	M	C147272	1.49	1.67	0.0703	0.00068	0.00052	0.101	<0.0001	<0.001	<0.05	0.000012	42.3	0.0015	0.00026	0.00088	0.077	<0.0002	0.0146	11.6	0.012	<0.0000019	0.0038	0.0024	
RSEM-R6W-EOP	7/4/2021 13:30	ABD991	M	C147267	1.54	1.57	0.0489	0.00075	0.00057	0.1	<0.0001	<0.001	0.052	0.000014	42.5	0.0014	0.00023	0.00096	0.056	<0.0002	0.0173	11.1	0.0109	0.0000025	0.0043	0.0013	
RSEM-R6W-EOP	7/4/2021 13:40	ABD992	D	C147267	1.66	1.65	0.0569	0.00076	0.00055	0.101	<0.0001	<0.001	0.053	0.000016	42.9	0.0016	0.00025	0.00089	0.059	<0.0002	0.0177	11.2	0.0111	<0.0000019	0.0043	0.0021	
RSEM-R6W-EOP	7/5/2021 9:25	ABG199	M	C147674	<2.5	1.46	0.0623	0.00086	0.00068	0.0992	<0.0001	<0.001	0.057	0.000013	42.8	0.0022	0.00022	0.00089	0.054	<0.0002	0.0195	11.8	0.0114	<0.0000019	0.0049	0.0021	
RSEM-R6W-EOP	7/6/2021 10:00	ABJ179	M	C148228	<2.5	1.47	0.0437	0.00085	0.00071	0.0953	<0.0001	<0.001	0.056	<0.00001	39.1	0.0015	<0.0002	0.00078	0.044	<0.0002	0.0183	11.1	0.0096	<0.0000019	0.0049	0.0016	
RSEM-R6W-EOP	7/7/2021 11:30	ABK532	M	C148516	<2.5	1.29	0.0508	0.00093	0.00066	0.0965	<0.0001	<0.001	0.06	<0.00001	39.2	0.0065	0.00021	0.00075	0.061	<0.0002	0.0198	11.6	0.01	<0.0000019	0.0053	0.0037	
RSEM-R6W-EOP	7/8/2021 11:30	ABM761	M	C148925	2.04	1.61	0.0583	0.00104	0.0006	0.0944	<0.0001	<0.001	0.063	<0.00001	40.4	0.0026	<0.0002	0.00091	0.059	<0.0002	0.0204	12.1	0.0082	<0.0000019	0.0053	0.0021	
RSEM-R6W-EOP	7/9/2021 9:50	ABM748	M	C148923	2.07	1.53	0.0585	0.00105	0.00066	0.0901	<0.0001	<0.001	0.063	<0.00001	39.7	0.0019	<0.0002	0.00076	0.045	<0.0002	0.0197	12.2	0.007	<0.0000019	0.0052	<0.001	
RSEM-R6W-EOP	7/10/2021 10:00	ABP528	M	C149429	1.39	0.89	0.071	0.00099	0.0007	0.0916	<0.0001	<0.001	0.07	<0.00001	41.2	0.0017	<0.0002	0.00083	0.05	<0.0002	0.0223	12.8	0.0071	<0.0000019	0.0055	0.0014	
RSEM-R6W-EOP	7/11/2021 10:00	ABP673	M	C149459	1.31	2.03	0.0772	0.00113	0.00055	0.0933	<0.0001	<0.001	0.075	<0.00001	43.0	0.0025	<0.0002	0.00077	0.059	<0.0002	0.0241	13.1	0.0093	<0.0000019	0.0058	0.0013	
RSEM-R6W-EOP	7/12/2021 4:30	ABP854	M	C149486	1.54	1.49	0.102	0.00109	0.00063	0.0918	<0.0001	<0.001	0.078	<0.00001	42.2	0.0028	<0.0002	0.00119	0.064	<0.0002	0.0246	13.2	0.0074	<0.0000019	0.006	0.0015	
RSEM-R6W-EOP	7/13/2021 15:20	ABU091	M	C150243	1.22	<2.5	0.0508	0.00125	0.0008	0.0875	<0.0001	<0.001	0.072	0.000018	42.5	0.0026	<0.0002	0.00117	0.047	<0.0002	0.0236	13.0	0.0075	<0.0000019	0.0064	0.0031	
RSEM-R6W-EOP	7/14/2021 13:45	ABX615	M	C150851	1.85	1.95	0.0746	0.00118	0.00082	0.083	<0.0001	<0.001	0.061	<0.00001	40.5	0.0018	<0.0002	0.00072	0.054	<0.0002	0.0225	11.8	0.0065	<0.0000019	0.0062	0.001	
RSEM-R6W-EOP	7/15/2021 15:35	ABY388	M	C150960	1.79	1.19	0.0606	0.00111	0.00082	0.0835	<0.0001	<0.001	0.055	0.000021	41.2	0.002	<0.0002	0.00072	0.048	<0.0002	0.0198	11.6	0.0073	<0.0000019	0.0058	0.0013	
RSEM-R6W-EOP	7/16/2021 13:00	ABZ187	M	C151029	0.55	1.50	0.074	0.00102	0.00076	0.0876	<0.0001	<0.001	<0.05	<0.00001	42.3	0.0017	<0.0002	0.00072	0.065	<0.0002	0.017	11.2	0.0099	<0.0000019	0.0052	0.001	
RSEM-R6W-EOP	7/17/2021 15:25	ACC246	M	C151542	<0.50	0.94	0.0752	0.00087	0.00065	0.0809	<0.0001	<0.001	0.068	<0.00001	44.8	0.0015	<0.0002	0.00074	0.084	<0.0002	0.0192	10.3	0.0078	<0.0000019	0.0044	0.0014	
RSEM-R6W-EOP	7/18/2021 13:40	ACC416	M	C151549	1.09	1.54	0.098	0.001	0.00083	0.0989	<0.0001	<0.001	0.071	<0.00001	43.4	0.0017	0.00023	0.00072	0.132	<0.0002	0.0203	10.2	0.0101	<0.0000019	0.0048	0.0022	
RSEM-R6W-EOP	7/18/2021 13:50	ACC417	D	C151549	1.52	1.53	0.139	0.001	0.00081	0.101	<0.0001	<0.001	0.07	<0.00001	44.0	0.0018	0.00024	0.00089	0.143	<0.0002	0.02	10.3	0.0103	<0.0000019	0.0048	0.0027	
RSEM-R6W-EOP	7/19/2021 15:25	ACF037	M	C151946	1.50	1.96	0.126	0.00128	0.00093	0.103	<0.0001	<0.001	0.055	0.000016	39.0	0.0017	<0.0002	0.00078	0.09	<0.0002	0.017	9.42	0.0108	<0.0000019	0.0058	0.0011	
RSEM-R6W-EOP	7/20/2021 14:50	ACH815	M	C152456	2.15	1.90	0.104	0.00148	0.001	0.102	<0.0001	<0.001	0.074	0.000027	40.7	0.002	0.00021	0.00144	0.067	<0.0002	0.0197	11.1	0.0092	<0.0000019	0.0061	<0.001	
RSEM-R6W-EOP	7/21/2021 15:50	ACH933	M	C152481	<2.5	1.49	0.128	0.00119	0.00078	0.0894	<0.0001	<0.001	0.087	<0.00001	44.2	0.0021	0.00021	0.00088	0.195	<0.0002	0.0228	9.82	0.0125	<0.0000019	0.0048	0.0012	
RSEM-R6W-EOP	7/22/2021 17:25	ACL554	M	C152988	3.82	3.53	0.337	0.001	0.00092	0.107	<0.0001	<0.001	0.115	0.000028	93.1	0.002	0.00064	0.00139	0.477	0.00028	0.0301	16.0	0.045	0.0000027	0.0068	0.0055	
RSEM-R6W-EOP	7/23/2021 11:50	ACL701	M	C153012	1.33	0.89	0.194	0.00136	0.00088	0.118	<0.0001	<0.001	0.101	0.000011	43.6	0.0019	0.00032	0.00099	0.271	<0.0002	0.0237	9.62	0.0173	<0.0000019	0.007	0.0026	
RSEM-R6W-EOP	7/24/2021 14:50	ACO407	M	C153513	2.31	1.95	0.181	0.00164	0.001	0.106	<0.0001	<0.001	0.105	0.000017	46.4	0.0018	0.00023	0.0008	0.13	<0.0002	0.0268	12.2	0.0168	<0.0000019	0.0072	<0.001	
RSEM-R6W-EOP	7/25/2021 14:10	ACO190	M	C153467	1.90	2.09	0.0842	0.00131	0.00072	0.0844	<0.0001	<0.001	0.095	0.000012	47.6	0.0015	0.00026	0.00067	0.077	<0.0002	0.0297	11.4	0.0157	<0.0000019	0.006	0.0022	
RSEM-R6W-EOP	7/26/2021 10:45	ACN521	M	C153324	1.84	2.46	0.118	0.00164	0.00095	0.106	<0.0001	<0.001	0.113	0.000022	62.2	0.002	0.00039	0.00084	0.074	<0.0002	0.0378	17.8	0.0211	<0.0000019	0.008	0.0036	
RSEM-R6W-EOP	7/27/2021 11:20	ACT044	M	C154246	<2.5	<2.5	0.0601	0.00117	0.00067	0.0913	<0.0001	<0.001	0.11	0.000015	55.4	0.0011	0.00029	0.00069	0.046	<0.0002	0.0314	15.2	0.0163	<0.0000019	0.0065	<0.001	
RSEM-R6W-EOP	7/28/2021 12:20	ACV590	M	C154699	1.74	<2.5	0.0632	0.00087	0.00061	0.0908	<0.0001	<0.001	0.084	0.000012	55.4	0.0011	0.00029	0.00063	0.071	<0.0002	0.0258	14.4	0.0184	<0.0000019	0.0052	0.0025	
RSEM-R6W-EOP	7/29/2021 12:00	ACY652	M	C155287	1.74	2.01	0.0652	0.00074	0.00054	0.0891	<0.0001	<0.001	0.072	<0.00001	55.5	0.0012	0.00027	0.00065	0.07	<0.0002	0.0222	14.5	0.018	<0.0000019	0.0046	0.0041	
RSEM-R6W-EOP	7/30/2021 10:40	ACY654	M	C155288	1.52	1.96	0.0626	0.00059	0.00046	0.0876	<0.0001	<0.001	0.059	0.000012	57.9	0.0011	0.00033	0.00076	0.077	<0.0002	0.0203	14.3	0.02	<0.0000019	0.004	0.0097	
RSEM-R6W-EOP	7/31/2021 12:00	ADA374	M	C155508	1.69	2.24	0.0974	0.0005	0.00042	0.083	<0.0001	<0.001	0.054	0.000012	54.6	<0.001	<0.0002	0.00061	0.107	<0.0002	0.0164	14.3	0.0169	<0.0000019	0.0035	0.0018	
RSEM-R6W-EOP	8/1/2021 10:40	ADC692	M	C155924	3.9	1.61	0.0678	<0.0005	0.00046	0.0848	<0.0001	<0.001	0.057	0.000015	56.4	<0.001	<0.0002	0.00067	0.08	<0.0002	0.0192	15.3	0.0198	<0.0000019	0.0037	0.0019	
RSEM-R6W-EOP	8/2/2021 5:40	ADC745	M	C155936	2.35	2.49	0.0626	0.00056	0.00051	0.088	<0.0001	<0.001	0.062	0.000011	58.8	<0.001	0.00021	0.00098	0.074	<0.0002	0.0222	16.0	0.0207	<0.0000019	0.0044	0.0018	
RSEM-R6W-EOP	8/5/2021 11:05	ADK135	M	C157133	1.79	2.01	0.0844	0.00061	0.00057	0.0862	<0.0001	<0.001	0.081	0.000012	58.6	0.0012	<0.0002	0.00077	0.098	<0.0002	0.0276	17.5	0.0141	<0.0000019	0.0045	0.0024	
RSEM-R6W-EOP	8/6/2021 11:50	ADK123	M	C157131	<2.5	1.72	0.0863	0.00065	0.00062	0.0934	<0.0001	<0.001	0.095	0.000011	58.2	0.0012	<0.0002	0.00082	0.083	<0.0002	0.028	17.5	0.0122	<0.0000019	0.0047	0.0017	
RSEM-R6W-EOP	8/7/2021 11:45	ADM458	M	C157545	9.1	1.71	0.0591	0.00076	0.00083	0.106	<0.0001	<0.001	0.108	<0.00001	56.6	0.0017	<0.0002	0.00108	0.059	<0.0002	0.0301	15.6	0.009	<0.0000019	0.006	0.0017	
RSEM-R6W-EOP	8/8/2021 12:40	ADN232	M	C157651	2.7	1.69	0.0625	0.00086	0.00082	0.0881	<0.0001	<0.001	0.101	<0.00001	54.6	0.0018	<0.0002	0.00074	0.077	<0.0002	0.0325	14.9	0.0077	<0.0000019	0.006	0.0015	
RSEM-R6W-EOP	8/9/2021 11:55	ADM368	M	C157523	<2.5	2.6	0.0805	0.00097	0.00096	0.0944	<0.0001	<0.001	0.127	<0.00001	55.0	0.0015	0.0002	0.00087	0.085	<0.0002	0.0372	21.4	0.0094	<0.0000019	0.0064	0.0019	
RSEM-R6W-EOP	8/10/2021 11:00	ADP900	M	C158211	2.01	1.96	0.043	0.00087	0.00078	0.0755	<0.0001	<0.001	0.105	<0.00001	52.9	0.0012	<0.0002	0.00077	0.037	<0.0002	0.037	14.8	0.0076	<0.0000019	0.0062	0.0017	
RSEM-R6W-EOP	8/11/2021 12:50	ADR989	M	C158615	1.64	1.89	0.0386	0.00091	0.00072	0.0761	<0.0001	<0.001	0.111	<0.00001	55.8	0.0014	<0.0002	0.00071	0.029	<0.0002	0.0405	15.9	0.0065	<0.0000019	0.006	0.0019	
RSEM-R6W-EOP	8/12/2021 11:50	ADU539	M	C159104	3.0	1.83	0.039	0.00085	0.00074	0.0723	<0.0001	<0.001	0.106	<0.00001	54.7	0.001	<0.0002	0.00067	0.028	<0.0002	0.0393	15.6	0.0058	<0.0000019	0.0059	0.0021	
RSEM-R6W-EOP	8/13/2021 11:00	ADU546	M	C159105	4.1	1.71	0.0484	0.00114	0.00082	0.0823	<0.0001	<0.001	0.113	<0.00001	57.7	0.0016	<0.0002	0.00083	0.047	<0.0002	0.0388	19.1	0.008	<0.0000019	0.0062	0.0021	
RSEM-R6W-EOP	8/14/2021 11:30	ADW201	M	C159435	1.75	2.15	0.051	0.00103	0.00073	0.0767	<0.0001	<0.001	0.091	0.000016	53.7	0.0015	<0.0002	0.0008	0.052	<0.0002	0.0345	17.6	0.0074	<0.0000019	0.0057	0.0019	
RSEM-R6W-EOP	8/15/2021 11:50	ADW428	M	C159489	1.73	1.64	0.0431	0.00104	0.00072	0.0749	<0.0001	<0.001	0.089	<0.00001	54.3	0.0011	<0.0002	0.00123	0.033	<0.0002	0.0341	18.7	0.0068	<0.0000019	0.0057	0.0018	
RSEM-R6W-EOP	8/16/2021 11:50	ADY263	M	C159861	2.41	2.16	0.0461	0.00106	0.00065	0.0772	<0.0001	<0.001	0.106	<0.00001	56.2	0.0013	<0.0002	0.00079	0.036	<0.0002	0.033	18.8	0.0068	<0.0000019	0.0061	0.0019	
RSEM-R6W-EOP	8/17/2021 11:50	AED546	M	C160795	1.63	1.76	0.0455	0.00133	0.00068	0.0755	<0.0001	<0.001	0.101	<0.00001	54.0	0.0015	<0.0002	0.00079	0.031	<0.0002	0.0326	19.2	0.006	<0.0000019	0.006	0.0016	
RSEM-R6W-EOP	8/18/2021 11:30	AED517	M	C160793	1.28	1.72	0.0527	0.00135	0.00062	0.0793	<0.0001	<0.001	0.094	<0.00001	52.0	0.0013	<0.0002	0.00078	0.039	<0.0002	0.0317	19.7	0.0062	<0.0000019	0.006	0.0017	
RSEM-R6W-EOP	8/19/2021 14:10	AEF598	M	C161077	1.79	1.69	0.0506	0.0012	0.00065	0.079	<0.0001	<0.001	0.098	<0.00001	49.5	0.0012	<0.0002	0.00077	0.026	<0.0002	0.0337	16.5	0.0053	<0.0000019	0.0059	0.0017	
RSEM-R6W-EOP	8/20/2021 10:20	AEF523	M	C161059	1.75	1.67	0.0575	0.00135	0.00069	0.0794	<0.0001	<0.001	0.114	<0.00001	50.6	0.0014	<0.0002	0.00072	0.033	<0.0002	0.0367	18.8	0.0057	<0.0000019	0.006	0.0016	
RSEM-R6W-EOP	8/21/2021 11:00	AEI349	M	C161420	1.13	1.77	0.0692	0.00138	0.0007	0.0764	<0.0001	<0.001	0.11	<0.00001	46.9	0.0012	<0.0002	0.00066	0.038	<0.0002	0.0326	15.8	0.0067	<0.0000019	0.0057	0.0014	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	8/22/2021 12:20	AEI411	M	C161433	1.62	1.35	0.179	0.00124	0.00079	0.109	<0.0001	<0.001	0.098	0.000028	47.2	0.0014	0.00028	0.00143	0.243	<0.0002	0.0324	16.3	0.0187	0.000002	0.006	0.0015	
RSEM-R6W-EOP	8/23/2021 11:30	AEL591	M	C161925	2.02	1.69	0.122	0.00145	0.00086	0.105	<0.0001	<0.001	0.101	0.000016	47.8	0.0014	0.00025	0.00102	0.145	<0.0002	0.0336	15.7	0.0168	<0.0000019	0.007	0.0014	
RSEM-R6W-EOP	8/24/2021 17:05	AEN130	M	C162291	2.01	1.56	0.132	0.00177	0.00082	0.101	<0.0001	<0.001	0.131	0.000022	50.7	0.0021	0.00069	0.00096	0.112	<0.0002	0.041	17.3	0.0286	<0.0000019	0.0078	0.0035	
RSEM-R6W-EOP	8/25/2021 16:45	AEP241	M	C162703	1.58	2.06	0.0955	0.00155	0.00078	0.0874	<0.0001	<0.001	0.075	0.000021	55.2	0.0019	0.00099	0.00081	0.046	<0.0002	0.0459	19.1	0.0318	<0.0000019	0.0069	0.0052	
RSEM-R6W-EOP	8/26/2021 10:30	AER554	M	C163145	1.02	1.70	0.096	0.00148	0.00074	0.0796	<0.0001	<0.001	0.106	0.000027	60.3	0.0018	0.00115	0.00083	0.042	<0.0002	0.0521	22.0	0.0346	<0.0000019	0.0063	0.0062	
RSEM-R6W-EOP	8/27/2021 10:25	AER547	M	C163144	1.86	1.42	0.086	0.00133	0.00071	0.0793	<0.0001	<0.001	0.099	0.000023	68.5	0.0017	0.00091	0.00069	0.043	<0.0002	0.062	23.6	0.0242	<0.0000019	0.0062	0.0059	
RSEM-R6W-EOP	8/28/2021 11:10	AEV124	M	C163811	2.15	0.74	0.0687	0.00112	0.00048	0.0675	<0.0001	<0.001	0.112	0.000011	68.1	0.0012	0.00055	0.00055	0.032	<0.0002	0.0592	21.2	0.0161	<0.0000019	0.0048	0.0045	
RSEM-R6W-EOP	8/29/2021 10:05	AEV011	M	C163786	3.43	1.62	0.0724	0.00118	0.00062	0.0738	<0.0001	<0.001	0.087	0.000012	68.3	0.0014	0.00041	0.00067	0.052	<0.0002	0.063	22.7	0.0142	<0.0000019	0.0049	0.004	
RSEM-R6W-EOP	8/30/2021 10:15	AEX829	M	C164176	1.40	1.25	0.0612	0.00097	0.00042	0.0682	<0.0001	<0.001	0.103	<0.00001	69.6	<0.001	0.0003	0.00052	0.041	<0.0002	0.0617	20.3	0.0114	<0.0000019	0.0042	0.0033	
RSEM-R6W-EOP	8/31/2021 16:45	AFA832	M	C164798	1.20	<0.50	0.0799	0.001	0.0004	0.0675	<0.0001	<0.001	0.103	0.000012	73.1	0.001	0.00039	0.0006	0.07	<0.0002	0.0638	22.0	0.0137	<0.0000019	0.0041	0.0037	
RSEM-R6W-EOP	9/1/2021 15:50	AFC995	M	C165103	1.44	1.37	0.0606	0.00095	0.00037	0.0651	<0.0001	<0.001	0.1	0.000015	78.6	<0.001	0.00046	0.00063	0.057	<0.0002	0.0642	22.6	0.0143	<0.0000019	0.0041	0.0041	
RSEM-R6W-EOP	9/2/2021 11:20	AFF607	M	C165563	0.95	1.03	0.0499	0.00091	0.00036	0.0633	<0.0001	<0.001	0.103	0.000014	76.2	<0.001	0.00051	0.00058	0.037	<0.0002	0.0599	23.0	0.0141	<0.0000019	0.004	0.0046	
RSEM-R6W-EOP	9/3/2021 11:25	AFF869	M	C165588	1.54	1.41	0.0647	0.00084	0.00028	0.0624	<0.0001	<0.001	0.113	0.00001	73.8	<0.001	0.00059	0.00064	0.038	<0.0002	0.0676	26.8	0.0155	<0.0000019	0.0038	0.0051	
RSEM-R6W-EOP	9/4/2021 16:20	AFH289	M	C165785	1.42	1.06	0.0628	0.00097	0.00042	0.0698	<0.0001	<0.001	0.095	0.000015	76.5	<0.001	0.00059	0.00073	0.044	<0.0002	0.0578	27.4	0.0158	<0.0000019	0.0045	0.0053	
RSEM-R6W-EOP	9/5/2021 14:10	AFI824	M	C166081	1.59	1.42	0.0757	0.00077	0.00031	0.0592	<0.0001	<0.001	0.1	<0.00001	70.4	<0.001	0.0004	0.00079	0.061	<0.0002	0.0559	24.7	0.0113	<0.0000019	0.0041	0.0049	
RSEM-R6W-EOP	9/6/2021 12:25	AFI719	M	C166063	1.41	1.74	0.0718	0.00096	0.00036	0.0691	<0.0001	<0.001	0.086	0.000016	68.8	<0.001	0.00033	0.00068	0.059	<0.0002	0.0574	26.2	0.0103	<0.0000019	0.0044	0.0042	
RSEM-R6W-EOP	9/7/2021 12:00	AFL345	M	C166557	1.48	0.96	0.0502	0.00097	0.00033	0.0653	<0.0001	<0.001	0.091	<0.00001	65.5	<0.001	0.00023	0.00059	0.032	<0.0002	0.0553	24.8	0.0075	<0.0000019	0.0057	0.0034	
RSEM-R6W-EOP	9/8/2021 11:20	AFO057	M	C167059	1.61	1.20	0.0523	0.00088	0.00033	0.0626	<0.0001	<0.001	0.095	<0.00001	64.0	<0.001	0.00022	0.00061	0.04	<0.0002	0.0523	25.6	0.0085	<0.0000019	0.0046	0.0037	
RSEM-R6W-EOP	9/9/2021 11:40	AFQ845	M	C167445	1.38	1.27	0.0476	0.00087	0.00042	0.062	<0.0001	<0.001	0.087	<0.00001	61.5	<0.001	<0.0002	0.00229	0.036	<0.0002	0.0507	24.5	0.0084	<0.0000019	0.0043	0.0031	
RSEM-R6W-EOP	9/10/2021 10:20	AFQ881	M	C167449	1.35	0.97	0.0532	0.00087	0.0004	0.0608	<0.0001	<0.001	0.089	<0.00001	59.7	<0.001	<0.0002	0.00111	0.031	<0.0002	0.0485	24.1	0.0074	<0.0000019	0.0043	0.0027	
RSEM-R6W-EOP	9/11/2021 12:20	AFV353	M	C168029	1.42	1.35	0.0466	0.00083	0.00036	0.0577	<0.0001	<0.001	0.088	<0.00001	53.9	<0.001	<0.0002	0.0007	0.035	<0.0002	0.051	22.2	0.0081	<0.0000019	0.004	0.0024	
RSEM-R6W-EOP	9/12/2021 13:20	AFV417	M	C168037	1.44	1.27	0.0836	0.00092	0.00043	0.057	<0.0001	<0.001	0.083	<0.00001	51.8	0.0014	<0.0002	0.00068	0.038	<0.0002	0.0508	22.8	0.0075	<0.0000019	0.0045	0.0026	
RSEM-R6W-EOP	9/13/2021 5:20	AFV244	M	C168020	1.44	1.47	0.0431	0.001	0.00053	0.0602	<0.0001	<0.001	0.103	<0.00001	52.9	0.001	<0.0002	0.00065	0.03	<0.0002	0.0562	23.8	0.0056	<0.0000019	0.0048	0.0023	
RSEM-R6W-EOP	9/14/2021 16:40	AGB016	M	C169017	1.52	1.14	0.0478	0.00103	0.00051	0.0566	<0.0001	<0.001	0.111	<0.00001	45.6	0.001	<0.0002	0.00078	0.045	<0.0002	0.0534	21.0	0.0069	<0.0000019	0.0048	0.0022	
RSEM-R6W-EOP	9/14/2021 16:50	AGB017	D	C169017	1.56	1.07	0.0439	0.00101	0.00054	0.0561	<0.0001	<0.001	0.11	<0.00001	45.0	0.0011	<0.0002	0.0008	0.043	<0.0002	0.0542	20.6	0.0068	<0.0000019	0.0048	0.002	
RSEM-R6W-EOP	9/15/2021 10:30	AGD165	M	C169361	1.62	1.78	0.0496	0.00106	0.00057	0.0594	<0.0001	<0.001	0.114	<0.00001	44.9	0.0012	<0.0002	0.00079	0.055	<0.0002	0.0558	21.2	0.0087	<0.0000019	0.0049	0.0021	
RSEM-R6W-EOP	9/16/2021 12:55	AGG329	M	C169805	1.27	1.42	0.072	0.00132	0.00062	0.0594	<0.0001	<0.001	0.112	<0.00001	44.1	0.0012	<0.0002	0.00073	0.07	<0.0002	0.0587	23.2	0.0094	<0.0000019	0.005	0.0022	
RSEM-R6W-EOP	9/17/2021 10:50	AGG308	M	C169799	1.59	1.62	0.0659	0.0013	0.00056	0.0576	<0.0001	<0.001	0.103	<0.00001	43.2	0.0011	<0.0002	0.00072	0.058	<0.0002	0.0588	23.7	0.0089	<0.0000019	0.0051	0.0024	
RSEM-R6W-EOP	9/18/2021 12:20	AGJ634	M	C170329	<0.50	1.35	0.0666	0.00119	0.00066	0.0592	<0.0001	<0.001	0.125	<0.00001	42.4	0.0014	<0.0002	0.00088	0.076	<0.0002	0.0596	25.0	0.0127	<0.0000019	0.0049	0.0027	
RSEM-R6W-EOP	9/19/2021 11:20	AGJ665	M	C170331	1.77	1.75	0.0822	0.00117	0.00059	0.062	<0.0001	<0.001	0.117	<0.00001	39.7	0.0013	<0.0002	0.00079	0.086	<0.0002	0.0521	22.0	0.0133	<0.0000019	0.0047	0.0025	
RSEM-R6W-EOP	9/20/2021 10:40	AGM221	M	C170680	1.42	0.96	0.0668	0.00101	0.00072	0.062	<0.0001	<0.001	0.119	<0.00001	40.0	0.0012	0.0002	0.00091	0.072	<0.0002	0.0529	24.0	0.0136	<0.0000019	0.0045	0.003	
RSEM-R6W-EOP	9/21/2021 11:20	AGO664	M	C171134	1.49	1.45	0.0637	0.00089	0.0007	0.0643	<0.0001	<0.001	0.112	0.00001	39.5	0.0018	<0.0002	0.00093	0.059	<0.0002	0.048	23.7	0.0116	<0.0000019	0.0044	0.0036	
RSEM-R6W-EOP	9/22/2021 11:05	AGR065	M	C171568	1.76	1.54	0.066	0.00082	0.00056	0.0627	<0.0001	<0.001	0.089	<0.00001	38.4	0.0011	<0.0002	0.00079	0.07	<0.0002	0.0446	21.2	0.0103	<0.0000019	0.0041	0.0029	
RSEM-R6W-EOP	9/23/2021 16:35	AGT565	M	C171954	1.68	1.18	0.0738	0.00071	0.00065	0.0607	<0.0001	<0.001	0.09	<0.00001	36.3	0.001	<0.0002	0.00102	0.073	<0.0002	0.0431	19.6	0.0086	<0.0000019	0.0039	0.0029	
RSEM-R6W-EOP	9/24/2021 12:55	AGV850	M	C172263	1.21	1.37	0.0836	0.00065	0.0006	0.0611	<0.0001	<0.001	0.089	<0.00001	38.8	<0.001	<0.0002	0.00068	0.074	<0.0002	0.0425	18.2	0.007	<0.0000019	0.0041	0.0025	
RSEM-R6W-EOP	9/25/2021 15:55	AGX496	M	C172580	1.19	1.20	0.0802	0.00065	0.00072	0.0571	<0.0001	<0.001	0.093	0.000027	36.9	0.0011	<0.0002	0.00117	0.072	<0.0002	0.047	20.1	0.0072	<0.0000019	0.004	0.0029	
RSEM-R6W-EOP	9/26/2021 15:30	AGX366	M	C172552	0.84	1.37	0.0591	0.00059	0.00061	0.0537	<0.0001	<0.001	0.082	<0.00001	34.0	<0.001	<0.0002	0.00088	0.058	<0.0002	0.0415	18.6	0.0059	<0.0000019	0.0038	0.0025	
RSEM-R6W-EOP	9/27/2021 11:40	AGZ868	M	C172958	0.83	1.66	0.0651	0.0006	0.0007	0.0533	<0.0001	<0.001	0.091	<0.00001	36.5	0.001	<0.0002	0.00107	0.06	<0.0002	0.0445	21.2	0.0063	<0.0000019	0.0038	0.0037	
RSEM-R6W-EOP	9/28/2021 11:30	AHC016	M	C173431	1.59	1.78	0.076	0.00058	0.0006	0.051	<0.0001	<0.001	0.088	<0.00001	34.0	<0.001	<0.0002	0.00078	0.061	<0.0002	0.0443	19.5	0.0072	<0.0000019	0.0045	0.0028	
RSEM-R6W-EOP	9/29/2021 12:30	AHF733	M	C174181	1.10	1.15	0.0765	0.0005	0.00057	0.05	<0.0001	<0.001	0.094	<0.00001	32.7	<0.001	<0.0002	0.00056	0.061	<0.0002	0.0379	15.7	0.0058	<0.0000019	0.0037	0.002	
RSEM-R6W-EOP	9/30/2021 11:10	AHF783	M	C174188	1.77	1.54	0.0881	0.00055	0.0006	0.0499	<0.0001	<0.001	0.098	0.000037	32.6	<0.001	<0.0002	0.00076	0.067	<0.0002	0.0404	18.4	0.0077	<0.0000019	0.0039	0.0022	
RSEM-R6W-EOP	10/1/2021 12:30	AHF786	M	C174189	1.70	1.46	0.0893	0.00055	0.00066	0.0466	<0.0001	<0.001	0.089	<0.00001	31.4	<0.001	<0.0002	0.00079	0.073	<0.0002	0.0399	18.3	0.0073	<0.0000019	0.0037	0.0023	
RSEM-R6W-EOP	10/2/2021 11:00	AHI563	M	C174687	1.77	1.83	0.0858	0.00062	0.00067	0.0465	<0.0001	<0.001	0.099	<0.00001	30.8	<0.001	<0.0002	0.00079	0.073	<0.0002	0.0427	18.5	0.0069	<0.0000019	0.0039	0.0037	
RSEM-R6W-EOP	10/3/2021 12:30	AHI567	M	C174689	1.79	1.77	0.0785	<0.0005	0.00059	0.0427	<0.0001	<0.001	0.158	<0.00001	29.9	<0.001	<0.0002	0.00073	0.058	<0.0002	0.0413	17.9	0.0061	<0.0000019	0.0035	0.0021	
RSEM-R6W-EOP	10/4/2021 8:30	AHI554	M	C174685	1.40	1.73	0.0832	0.00054	0.00065	0.0463	<0.0001	<0.001	0.106	<0.00001	30.4	<0.001	<0.0002	0.00074	0.066	<0.0002	0.0431	18.1	0.006	<0.0000019	0.0039	0.0022	
RSEM-R6W-EOP	10/5/2021 14:40	AHO716	M	C175650	1.97	2.80	0.0603	0.00053	0.00059	0.0451	<0.0001	<0.001	0.091	<0.00001	33.5	<0.001	<0.0002	0.00102	0.08	<0.0002	0.0534	19.2	0.0072	<0.0000019	0.004	0.0038	
RSEM-R6W-EOP	10/6/2021 11:30	AHR785	M	C176098	1.39	<0.50	0.0735	0.00053	0.00053	0.0447	<0.0001	<0.001	0.076	<0.00001	34.2	<0.001	<0.0002	0.00096	0.061	<0.0002	0.0399	15.5	0.0063	<0.0000019	0.0038	0.0023	
RSEM-R6W-EOP	10/7/2021 17:30	AHU812	M	C176559	1.81	1.54	0.0587	0.00053	0.00056	0.0406	<0.0001	<0.001	0.101	<0.00001	32.0	<0.001	<0.0002	0.00079	0.048	<0.0002	0.051	17.5	0.0055	<0.0000019	0.0037	0.0023	
RSEM-R6W-EOP	10/8/2021 10:55	AHU798	M	C176557	1.68	1.47	0.0523	0.00057	0.0005	0.0403	<0.0001	<0.001	0.098	<0.00001	30.0	<0.001	<0.0002	0.00075	0.039	<0.0002	0.0494	15.6	0.0047	<0.0000019	0.0036	0.002	
RSEM-R6W-EOP	10/9/2021 12:00	AHX007	M	C176838	1.73	2.07	0.065	0.00063	0.00062	0.0407	<0.0001	<0.001	0.096	<0.00001	30.4	<0.001	<0.0002	0.00073	0.047	<0.0002	0.0492	16.5	0.0046	<0.0000019	0.004	0.0019	
RSEM-R6W-EOP	10/10/2021 12:50	AHX001	M	C176837	2.39	2.50	0.0482	0.00061	0.00054	0.0437	<0.0001	<0.001	0.085	0.000012	32.4	<0.001	<0.0002	0.00075	0.042	<0.0002	0.0461	15.6	0.0055	<0.0000019	0.0038	0.0023	
RSEM-R6W-EOP	10/11/2021 14:40	AHY662	M	C177084	1.69	2.01	0.0484	0.00065	0.00054	0.0474	<0.0001	<0.001	0.096	<0.00001	38.0	0.0012	<0.0002	0.00082	0.043	<0.0002	0.0372	14.2	0.0046	<0.0000019	0.0041	0.0022	
RSEM-R6W-EOP	10/12/2021 16:00	AIB244	M	C177600	1.73	2.46	0.0591	0.00067	0.00058	0.0453	<0.0001	<0.001	0.109	<0.00001	31.8	<0.001	<0.0002	0.00074	0.046	<0.0002	0.053	15.8	0.006	<0.0000019	0.004	0.0019	
RSEM-R6W-EOP	10/13/2021 11:50	AIE376	M	C178189	1.28	2.18	0.0584	0.00068	0.0006	0.0427	<0.0001	<0.001	0.091	<0.00001	31.5	0.0011	<0.0002	0.00071	0.055	<0.0002	0.0458	14.6	0.0064	<0.0000019	0.0038	0.0018	
RSEM-R6W-EOP	10/14/2021 10:50	AIG809	M	C178651	1.81	1.21	0.0621	0.00073	0.00054	0.0392	<0.0001	<0.001	0.087	<0.00001	28.4	0.0012	<0.0002	0.00068	0.067	<0.0002	0.0437	13.3	0.0068	<0.0000019	0.0038	0.0017	
RSEM-R6W-EOP	10/15/2021 11:20	AII742	M	C178993	2.45	1.21	0.081	0.001	0.0007	0.0428	<0.0001	<0.001	0.098	0.00001	28.9	0.0016	<0.0002	0.0008	0.097	<0.0002	0.05	13.7	0.0075	<0.0000019	0.0052	0.0017	
RSEM-R6W-EOP	10/16/2021 14:30	AIL331	M	C179338	1.27	1.25	0.068	0.00097	0.00055	0.0371	<0.0001	<0.001	0.092	<0.00001	25.9	0.0019	<0.0002	0.0007	0.07	<0.0002	0.0471	12.6	0.0064	<0.0000019	0.0045	0.0016	
RSEM-R6W-EOP	10/17/2021 14:30	AIL270	M	C179325	1.08	1.47	0.0551	0.00099	0.00053	0.035	<0.0001	<0.001	0.093	<0.00001	25.5	0.0021	<0.0002	0.00067	0.055	<0.0002	0.0463	12.0	0.0054	0.0000022	0.0045	0.0014	
RSEM-R6W-EOP	10/18/2021 10:05	AIL343	M	C179344	1.57	1.32	0.0678	0.001	0.00053	0.0356	<0.0001	<0.001	0.092	<0.00001	25.8	0.0022	<0.0002	0.00069	0.06	<0.0002	0.0474	12.3	0.0061	<0.0000019	0.0045	0.0018	
RSEM-R6W-EOP	10/19/2021 12:30	AIR752	M	C180384	1.91	1.91	0.0567	0.00117	0.00063	0.0382	<0.0001	<0.001	0.086	<0.00001	28.0	0.0022	<0.0002	0.00065	0.047	<0.0002	0.0493	13.3	0.0061	<0.0000019	0.0055	0.0013	
RSEM-R6W-EOP	10/20/2021 12:30	AIT535	M	C180689	2.65	1.69	0.0632	0.00117	0.0006	0.0369	<0.0001	<0.001	0.093	<0.00001	26.3	0.0022	<0.0002	0.00064	0.053	<0.0002	0.0489	13.8	0.006	<0.0000019	0.0055	0.0013	
RSEM-R6W-EOP	10/21/2021 11:30	AIW013	M	C181069	1.56	1.49	0.049	0.00121	0.00057	0.0366	<0.0001	<0.001	0.093	<0.00001	26.5	0.0024	<0.0002	0.00074	0.045	<0.0002	0.0474	12.9	0.0068	<0.0000019	0.0056	0.0013	
RSEM-R6W-EOP	10/22/2021 10:30	AIW018	M	C181072	1.34	1.50	0.0669	0.00127	0.0006	0.0378	<0.0001	<0.001	0.094	<0.00001	27.1	0.0026	<0.0002	0.00079	0.053	<0.0002	0.0469	13.0	0.0074	<0.0000019	0.0065	0.0012	
RSEM-R6W-EOP	10/23/2021 11:00	AIZ372	M	C181550	1.28	1.65	0.0596	0.00118	0.0006	0.0412	<0.0001	<0.001	0.093	<0.00001	26.7	0.0025	<0.0002	0.00072	0.061	<0.0002	0.0485	11.4	0.008	<0.0000019	0.0054	0.0012	
RSEM-R6W-EOP	10/24/2021 11:30	AIZ352	M	C181544	2.02	1.54	0.0864	0.00117	0.00059	0.0497	<0.0001	<0.001	0.077	<0.00001	30.1	0.0024	<0.0002	0.0008	0.064	<0.0002	0.0403	11.2	0.009	<0.0000019	0.0051	0.0011	
RSEM-R6W-EOP	10/25/2021 6:00	AIZ359	M	C181547	1.42	1.45	0.071	0.00111	0.00063	0.053	<0.0001	<0.001	0.07	<0.00001	29.7	0.0022	<0.0002	0.00073	0.063	<0.0002	0.0386	10.6	0.0089	<0.0000019	0.0049	0.0011	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	10/26/2021 10:40	AJF138	M	C182473	2.12	1.17	0.0725	0.0011	0.00068	0.0554	<0.0001	<0.001	0.075	<0.00001	32.8	0.0023	<0.0002	0.00079	0.067	<0.0002	0.0424	11.8	0.0086	0.000002	0.0047	0.0012	
RSEM-R6W-EOP	10/27/2021 14:40	AJH725	M	C182990	1.37	1.51	0.0666	0.00104	0.0007	0.058	<0.0001	<0.001	0.066	0.000011	32.6	0.0022	<0.0002	0.0007	0.059	<0.0002	0.0343	11.3	0.0075	<0.0000019	0.0045	0.0011	
RSEM-R6W-EOP	10/28/2021 15:50	AJL909	M	C183658	2.25	1.40	0.0691	0.00103	0.0007	0.0626	<0.0001	<0.001	0.069	<0.00001	35.5	0.0021	<0.0002	0.00073	0.058	<0.0002	0.0354	11.8	0.0067	<0.0000019	0.0045	0.001	
RSEM-R6W-EOP	10/29/2021 11:20	AJL061	M	C183557	2.28	1.42	0.0789	0.00097	0.00069	0.0692	<0.0001	<0.001	0.064	0.00001	39.6	0.002	<0.0002	0.00073	0.094	<0.0002	0.0333	12.4	0.0083	<0.0000019	0.0044	0.0012	
RSEM-R6W-EOP	10/30/2021 12:10	AJO164	M	C184013	1.71	1.72	0.0684	0.00093	0.00069	0.0696	<0.0001	<0.001	0.066	0.000011	41.4	0.0019	<0.0002	0.00064	0.056	<0.0002	0.0294	12.7	0.0065	<0.0000019	0.0045	0.001	
RSEM-R6W-EOP	10/31/2021 11:50	AJO161	M	C184012	1.69	1.60	0.066	0.00094	0.00064	0.0705	<0.0001	<0.001	0.061	<0.00001	40.2	0.0019	<0.0002	0.00086	0.052	<0.0002	0.0292	12.9	0.0068	<0.0000019	0.0043	0.001	
RSEM-R6W-EOP	11/1/2021 14:30	AJS228	M	C184600	1.80	1.53	0.0572	0.00085	0.00062	0.0726	<0.0001	<0.001	0.062	<0.00001	44.5	0.0019	<0.0002	0.00083	0.054	<0.0002	0.0325	12.6	0.0072	<0.0000019	0.0042	0.001	
RSEM-R6W-EOP	11/2/2021 14:55	AJU790	M	C184881	1.58	1.94	0.0618	0.00079	0.00064	0.0785	<0.0001	<0.001	0.061	<0.00001	46.7	0.0018	<0.0002	0.00068	0.063	<0.0002	0.0301	13.2	0.0078	<0.0000019	0.0043	0.0011	
RSEM-R6W-EOP	11/3/2021 12:30	AJX284	M	C185315	2.17	1.53	0.066	0.00077	0.00059	0.0833	<0.0001	<0.001	0.066	<0.00001	47.5	0.0018	<0.0002	0.00066	0.051	<0.0002	0.0304	13.0	0.0078	<0.0000019	0.0041	<0.001	
RSEM-R6W-EOP	11/4/2021 11:05	AKA062	M	C185756	1.74	1.97	0.0599	0.00071	0.00057	0.0896	<0.0001	<0.001	0.058	<0.00001	49.1	0.0016	<0.0002	0.00066	0.049	<0.0002	0.0266	13.8	0.0086	<0.0000019	0.004	0.0011	
RSEM-R6W-EOP	11/5/2021 11:25	AKA066	M	C185757	2.07	2.08	0.067	0.00062	0.00051	0.092	<0.0001	<0.001	0.052	<0.00001	50.3	0.0015	<0.0002	0.00065	0.054	<0.0002	0.0243	13.6	0.0092	<0.0000019	0.0037	0.001	
RSEM-R6W-EOP	11/6/2021 11:05	AKD993	M	C186250	1.75	1.75	0.0647	0.00067	0.00049	0.0922	<0.0001	<0.001	0.055	<0.00001	49.4	0.0015	<0.0002	0.00078	0.048	<0.0002	0.0246	13.3	0.009	0.0000022	0.0038	0.0011	
RSEM-R6W-EOP	11/7/2021 10:55	AKE000	M	C186252	1.92	2.33	0.0635	0.00074	0.00052	0.0883	<0.0001	<0.001	0.06	<0.00001	49.6	0.0016	<0.0002	0.0007	0.044	<0.0002	0.0263	13.8	0.0086	<0.0000019	0.004	0.001	
RSEM-R6W-EOP	11/8/2021 10:40	AKD975	M	C186247	2.24	2.20	0.0594	0.00085	0.00057	0.0842	<0.0001	<0.001	0.063	<0.00001	47.5	0.0039	<0.0002	0.00067	0.064	<0.0002	0.0295	14.0	0.009	0.0000024	0.0042	0.0012	
RSEM-R6W-EOP	11/9/2021 12:00	AKJ863	M	C187047	2.48	2.95	0.0526	0.00095	0.00056	0.0744	<0.0001	<0.001	0.061	<0.00001	45.7	0.0017	<0.0002	0.00069	0.042	<0.0002	0.0317	13.2	0.008	<0.0000019	0.0044	0.0011	
RSEM-R6W-EOP	11/10/2021 12:30	AKN275	M	C187468	2.44	2.35	0.0614	0.00121	0.00063	0.0676	<0.0001	<0.001	0.069	<0.00001	42.0	0.0022	<0.0002	0.00075	0.054	<0.0002	0.0359	12.6	0.0088	<0.0000019	0.0048	0.0015	
RSEM-R6W-EOP	11/11/2021 11:00	AKN228	M	C187460	2.58	2.53	0.0641	0.00135	0.00071	0.0702	<0.0001	<0.001	0.071	<0.00001	42.6	0.0022	<0.0002	0.00077	0.056	<0.0002	0.0381	13.3	0.0087	<0.0000019	0.0051	0.0014	
RSEM-R6W-EOP	11/12/2021 11:00	AKN247	M	C187463	1.87	2.66	0.069	0.00133	0.00067	0.064	<0.0001	<0.001	0.07	0.00001	38.7	0.0022	<0.0002	0.00077	0.063	<0.0002	0.038	12.7	0.0089	<0.0000019	0.0049	0.0015	
RSEM-R6W-EOP	11/13/2021 11:00	AKS760	M	C188237	2.96	3.01	0.0665	0.00145	0.00074	0.0606	<0.0001	<0.001	0.09	0.000015	37.6	0.0024	<0.0002	0.00084	0.062	<0.0002	0.0402	12.2	0.0093	<0.0000019	0.005	0.0016	
RSEM-R6W-EOP	11/14/2021 11:00	AKS791	M	C188243	2.80	2.65	0.0636	0.00144	0.00076	0.0629	<0.0001	<0.001	0.088	<0.00001	38.6	0.0024	<0.0002	0.00085	0.057	<0.0002	0.0401	12.5	0.0089	<0.0000019	0.0053	0.0016	
RSEM-R6W-EOP	11/15/2021 6:30	AKS805	M	C188248	4.29	3.25	0.0682	0.00155	0.00078	0.0613	<0.0001	<0.001	0.085	<0.00001	38.6	0.0024	<0.0002	0.0009	0.054	<0.0002	0.0425	12.4	0.0088	0.0000025	0.0055	0.0017	
RSEM-R6W-EOP	11/16/2021 15:00	AKV420	M	C188704	2.43	2.75	0.0851	0.00189	0.00094	0.0546	<0.0001	<0.001	0.104	0.000014	34.1	0.0024	<0.0002	0.00091	0.068	<0.0002	0.0507	13.8	0.0089	<0.0000019	0.006	0.0019	
RSEM-R6W-EOP	11/17/2021 11:15	AKY310	M	C189131	2.52	2.75	0.0682	0.00249	0.00098	0.0479	<0.0001	<0.001	0.111	<0.00001	29.1	0.0028	<0.0002	0.00103	0.087	<0.0002	0.0551	11.0	0.0091	0.0000027	0.006	0.0024	
RSEM-R6W-EOP	11/18/2021 10:50	AKZ642	M	C189345	2.61	2.65	0.0915	0.0024	0.00104	0.047	<0.0001	<0.001	0.118	0.000013	26.6	0.0029	<0.0002	0.00114	0.114	<0.0002	0.0564	11.7	0.0085	<0.0000019	0.0064	0.0024	
RSEM-R6W-EOP	11/19/2021 10:55	AKZ639	M	C189344	2.90	2.61	0.0817	0.00279	0.00109	0.048	<0.0001	<0.001	0.116	<0.00001	28.3	0.0031	0.0002	0.00117	0.103	<0.0002	0.0587	11.7	0.0083	<0.0000019	0.0068	0.0027	
RSEM-R6W-EOP	11/20/2021 10:30	ALR016	M	C192879	2.48	1.81	0.116	0.00565	0.00237	0.0962	<0.0001	<0.001	0.206	0.000029	46.4	0.0102	0.00043	0.00217	0.118	<0.0002	0.105	21.7	0.0177	0.000002	0.014	0.0062	
RSEM-R6W-EOP	11/21/2021 10:10	ALT348	M	C193212	2.77	1.60	0.105	0.00532	0.0022	0.0842	<0.0001	<0.001	0.184	0.000012	40.0	0.0099	0.0004	0.00217	0.109	<0.0002	0.095	19.1	0.0159	<0.0000019	0.0126	0.0053	
RSEM-R6W-EOP	11/22/2021 10:55	ALQ581	M	C192775	2.54	2.44	0.11	0.00378	0.00181	0.0634	<0.0001	<0.001	0.196	0.000022	35.7	0.0042	0.00032	0.00191	0.129	<0.0002	0.0886	18.7	0.0119	<0.0000019	0.0107	0.0041	
RSEM-R6W-EOP	11/23/2021 10:15	ALN437	M	C192217	2.41	2.26	0.103	0.00372	0.00169	0.062	<0.0001	<0.001	0.16	0.000017	30.8	0.0039	0.00029	0.0018	0.099	<0.0002	0.0794	18.4	0.0113	0.0000019	0.0106	0.0038	
RSEM-R6W-EOP	11/24/2021 10:45	ALQ703	M	C192806	2.39	2.38	0.103	0.00257	0.00131	0.0461	<0.0001	<0.001	0.148	0.000015	25.7	0.0031	0.00025	0.00148	0.121	<0.0002	0.0678	12.1	0.0095	<0.0000019	0.008	0.003	
RSEM-R6W-EOP	11/25/2021	FJ2101334-002	M	FJ2101334	2.82	2.42	0.217	0.00280	0.00152	0.0482	<0.000100	<0.000050	0.124	0.0000179	25.3	0.00316	0.00028	0.00167	0.157	0.000143	0.0633	14.2	0.0103	<0.0000050	0.00820	0.00314	<0.050
RSEM-R6W-EOP	11/26/2021 10:20	FJ2101337-003	M	FJ2101337	2.78	3.38	0.237	0.00276	0.00148	0.0496	<0.000100	<0.000050	0.123	0.0000184	26.0	0.00310	0.00026	0.00163	0.163	0.000152	0.0653	14.2	0.0101	<0.0000050	0.00786	0.00302	<0.050
RSEM-R6W-EOP	11/27/2021 11:00	FJ2101340-002	M	FJ2101340	2.82	3.21	0.210	0.00262	0.00151	0.0434	<0.000100	<0.000050	0.113	0.0000177	25.5	0.00305	0.00027	0.00179	0.128	0.000133	0.0597	14.3	0.0104	<0.0000050	0.00727	0.00301	<0.050
RSEM-R6W-EOP	11/28/2021 10:20	FJ2101338-003	M	FJ2101338	2.88	3.16	0.254	0.00268	0.00148	0.0492	<0.000100	<0.000050	0.125	0.0000192	25.7	0.00312	0.00026	0.00186	0.174	0.000159	0.0678	14.1	0.0104	<0.0000050	0.00781	0.00300	<0.050
RSEM-R6W-EOP	11/29/2021 9:55	FJ2101339-002	M	FJ2101339	3.10	3.02	0.246	0.00251	0.00138	0.0440	<0.000100	<0.000050	0.115	0.0000164	26.3	0.00288	0.00021	0.00160	0.142	0.000117	0.0614	14.4	0.0103	<0.0000050	0.00723	0.00299	<0.050
RSEM-R6W-EOP	11/30/2021 13:00	FJ2101361-002	M	FJ2101361	3.31	3.98	0.181	0.00272	0.00145	0.0470	<0.000100	<0.000050	0.122	0.0000195	26.4	0.00292	0.00021	0.00158	0.142	0.000104	0.0600	14.0	0.00976	<0.0000050	0.00785	0.00307	<0.050
RSEM-R6W-EOP	12/1/2021 13:00	FJ2101362-002	M	FJ2101362	3.25	4.00	0.136	0.00278	0.00152	0.0488	<0.000100	<0.000050	0.122	0.0000203	29.9	0.00304	0.00026	0.00168	0.136	0.000140	0.0601	14.6	0.0127	<0.0000050	0.00785	0.00290	<0.050
RSEM-R6W-EOP	12/2/2021 12:30	FJ2101375-002	M	FJ2101375	2.98	2.62	0.127	0.00263	0.00145	0.0478	<0.000100	<0.000050	0.125	0.0000235	27.3	0.00268	0.00025	0.00159	0.149	0.000124	0.0691	13.2	0.0128	<0.0000050	0.00782	0.00319	<0.050
RSEM-R6W-EOP	12/3/2021 12:00	FJ2101374-002	M	FJ2101374	2.68	2.58	0.114	0.00274	0.00145	0.0504	<0.000100	<0.000050	0.119	0.0000292	27.3	0.00275	0.00022	0.00175	0.136	0.000113	0.0609	14.6	0.0129	<0.0000050	0.00799	0.00316	<0.050
RSEM-R6W-EOP	12/4/2021 12:00	FJ2101385-002	M	FJ2101385	2.63	3.27	0.125	0.00274	0.00140	0.0495	<0.000100	<0.000050	0.127	0.0000271	29.0	0.00267	0.00024	0.00153	0.138	0.000102	0.0639	13.9	0.0162	<0.0000050	0.00778	0.00315	<0.050
RSEM-R6W-EOP	12/5/2021 12:00	FJ2101386-002	M	FJ2101386	2.96	3.70	0.123	0.00280	0.00137	0.0523	<0.000100	<0.000050	0.123	0.0000267	30.3	0.00268	0.00021	0.00168	0.124	0.000100	0.0626	14.3	0.0179	<0.0000050	0.00804	0.00309	<0.050
RSEM-R6W-EOP	12/6/2021 6:00	FJ2101387-001	M	FJ2101387	3.20	3.85	0.144	0.00277	0.00145	0.0536	<0.000100	<0.000050	0.124	0.0000224	30.8	0.00272	0.00024	0.00143	0.142	0.000111	0.0631	14.3	0.0210	<0.0000050	0.00774	0.00320	<0.050
RSEM-R6W-EOP	12/7/2021 10:30	FJ2101420-001	M	FJ2101420	2.63	3.29	0.143	0.00275	0.00153	0.0563	<0.000100	<0.000050	0.130	<0.0000300	35.4	0.00274	0.00022	0.00136	0.122	0.000086	0.0650	15.1	0.0250	<0.0000050	0.00811	0.00325	<0.050
RSEM-R6W-EOP	12/8/2021 11:20	FJ2101419-002	M	FJ2101419	3.09	3.45	0.102	0.00265	0.00141	0.0571	<0.000100	<0.000050	0.132	0.0000229	36.1	0.00253	0.00020	0.00133	0.108	0.000075	0.0647	14.9	0.0236	<0.0000050	0.00809	0.00311	<0.050
RSEM-R6W-EOP	12/9/2021 10:25	FJ2101442-003	M	FJ2101442	3.02	3.45	0.127	0.00274	0.00149	0.0569	<0.000100	<0.000050	0.150	0.0000255	39.3	0.00250	0.00023	0.00133	0.132	0.000090	0.0750	14.7	0.0338	<0.0000050	0.00838	0.00317	<0.050
RSEM-R6W-EOP	12/10/2021 10:55	FJ2101436-002	M	FJ2101436	2.93	3.58	0.137	0.00266	0.00150	0.0583	<0.000100	<0.000050	0.140	0.0000267	36.5	0.00244	0.00027	0.00136	0.147	0.000098	0.0709	14.8	0.0395	<0.0000050	0.00822	0.00321	<0.050
RSEM-R6W-EOP	12/11/2021 14:00	FJ2101439-003	M	FJ2101439	3.46	4.04	0.0098	0.00272	0.00141	0.0569	<0.000100	<0.000050	0.137	0.0000186	37.0	0.00193	0.00023	0.00109	0.017	<0.000050	0.0711	16.6	0.0492	<0.0000050	0.00827	0.00346	<0.050
RSEM-R6W-EOP	12/12/2021 11:45	FJ2101434-002	M	FJ2101434	3.30	3.74	0.137	0.00272	0.00144	0.0596	<0.000100	<0.000050	0.151	0.0000219	37.8	0.00230	0.00029	0.00139	0.145	0.000087	0.0746	16.4	0.0482	<0.0000050	0.00851	0.00392	<0.050
RSEM-R6W-EOP	12/13/2021 11:20	FJ2101455-001	M	FJ2101455	3.49	4.02	0.129	0.00262	0.00158	0.0673	<0.000100	<0.000050	0.136	0.0000291	39.5	0.00252	0.00029	0.00151	0.143	0.000067	0.0720	18.4	0.0472	<0.0000050	0.00816	0.00402	<0.050
RSEM-R6W-EOP	12/17/2021 11:35	FJ2101490-001	M	FJ2101490	3.26	2.85	0.147	0.00249	0.00145	0.0559	<0.000100	<0.000050	0.133	0.0000263	37.0	0.00217	0.00038	0.00146	0.167	0.000096	0.0789	19.3	0.0497	<0.0000050	0.00853	0.00490	<0.050
RSEM-R6W-EOP	12/18/2021 13:30	FJ2101495-001	M	FJ2101495	3.36	4.28	0.162	0.00218	0.00143	0.0493	<0.000100	<0.000050	0.129	0.0000290	35.0	0.00248	0.00040	0.00152	0.186	0.000131	0.0822	22.0	0.0413	<0.0000050	0.00846	0.00515	<0.050
RSEM-R6W-EOP	12/19/2021 11:30	FJ2101494-001	M	FJ2101494	3.43	4.39	0.134	0.00201	0.00144	0.0484	<0.000100	<0.000050	0.150	0.0000359	33.5	0.00336	0.00036	0.00157	0.165	0.000116	0.0831	24.2	0.0365	<0.0000050	0.00882	0.00475	<0.050
RSEM-R6W-EOP	12/19/2021 11:40	FJ2101494-002	D	FJ2101494	3.64	4.37	0.133	0.00202	0.00135	0.0463	<0.000100	<0.000050	0.149	0.0000350	32.9	0.00311	0.00037	0.00188	0.170	0.000126	0.0815	22.9	0.0348	<0.0000050	0.00898	0.00473	<0.050
RSEM-R6W-EOP	12/20/2021 10:25	FJ2101496-001	M	FJ2101496	3.42	4.20	0.129	0.00195	0.00136	0.0380	<0.000100	<0.000050	0.118	0.0000234	30.7	0.00410	0.00030	0.00149	0.163	0.000108	0.0760	26.0	0.0256	<0.0000050	0.00901	0.00392	<0.050
RSEM-R6W-EOP	12/21/2021 11:00	FJ2101514-004	M	FJ2101514	3.22	4.18	0.116	0.00200	0.00125	0.0418	<0.000100	<0.000050	0.139	0.0000271	32.0	0.00368	0.00028	0.00139	0.106	0.000087	0.0768	25.0	0.0282	<0.0000050	0.00870	0.00393	<0.050
RSEM-R6W-EOP	12/22/2021 6:00	FJ2101508-002	M	FJ2101508	3.32	3.94	0.0165	0.00197	0.00130	0.0360	<0.000100	<0.000050	0.157	0.0000232	31.2	0.00441	0.00022	0.00123	<0.010	<0.000050	0.0794	27.7	0.0233	<0.0000050	0.00958	0.00364	<0.050
RSEM-R6W-EOP	12/23/2021 11:00	FJ2101512-001	M	FJ2101512	3.78	5.40	0.0883	0.00198	0.00138	0.0387	<0.000100	<0.000050	0.120	0.0000188	32.1	0.00429	0.00023	0.00135	0.081	0.000066	0.0761	26.4	0.0238	<0.0000050	0.00902	0.00373	<0.050
RSEM-R6W-EOP	12/24/2021 11:45	FJ2101513-001	M	FJ2101513	3.77	4.03	0.102	0.00199	0.00131	0.0390	<0.000100	<0.000050	0.142	0.0000224	32.0	0.00406	0.00024	0.00137	0.086	0.000071	0.0771	25.8	0.0257	<0.0000050	0.00880	0.00369	<0.050
RSEM-R6W-EOP	12/25/2021 11:00	FJ2101514-001	M	FJ2101514	3.23	3.83	0.115	0.00207	0.00126	0.0401	<0.000100	<0.000050	0.146	0.0000184	32.2	0.00419	0.00022	0.00144	0.089	0.000071	0.0760	27.0	0.0243	<0.0000050	0.00927	0.00364	<0.050
RSEM-R6W-EOP	12/26/2021 13:45	FJ2101514-002	M	FJ2101514	3.33	4.03	0.137	0.00200	0.00138	0.0382	<0.000100	<0.000050	0.144	0.0000227	30.7	0.00480	0.00031	0.00165	0.240	0.000140	0.0757	27.8	0.0242	<0.0000050	0.00878	0.00358	<0.050
RSEM-R6W-EOP	12/27/2021 10:45	FJ2101514-003	M	FJ2101514	4.39	3.59	0.140	0.00206	0.00145	0.0363	<0.000100	<0.000050	0.125	0.0000279	31.9	0.00497	0.00026	0.00148	0.113	0.000091	0.0763	28.4	0.0230	<0.0000050	0.00991	0.00343	<0.050
RSEM-R6W-EOP	12/28/2021 11:15	FJ2101525-001	M	FJ2101525	3.69	5.79	0.114	0.00190	0.00140	0.0375	<0.000100	<0.000050	0.133	0.0000308	31.0	0.00480	0.00027	0.00143	0.086	0.000086	0.0741	26.0	0.0292	<0.0000050	0.00889	0.00363	<0.050
RSEM-R6W-EOP	12/29/2021 11:20	FJ2101526-001	M	FJ2101526	3.30	5.08	0.141	0.00177	0.00132	0.0369	<0.000100	<0.000050	0.122	0.0000312	30.5	0.00392	0.00030	0.00130	0.101	0.000094	0.0700	24.8	0.0379	<0.0000050	0.00812	0.00345	<0.050
RSEM-R6W-EOP	12/31/2021 12:00	FJ2200025-001	M	FJ2200025	3.93	2.71	0.143	0.00165	0.00128	0.0377	<0.000100	<0.000050	0.117	0.0000375	29.8	0.00390	0.00033	0.00130	0.116	0.000100	0.0678	25.0	0.0390	<0.0000050	0.00794	0.00340	<0.050
RSEM-R6-WP-C	12/29/2021 15:30	FJ2101526-003	M	FJ2101526	5.54	4.52	0.111	0.00252	0.00190	0.0264	<0.000100	<0.000050	0.168	0.0000132	31.7	0.00898	0.00019	0.00186	0.044	0.000060	0.0911	41.4	0.00415	<0.0000050	0.0130	0.00247	<0.050
RSEM-R6-WP-E	12/29/2021 15:00	FJ2101526-002	M	FJ2101526	3.09	5.08	0.130	0.00176	0.00135	0.0379	<0.000100	<0.000050	0.124	0.0000341	30.7	0.00444	0.00034	0.00149	0.101	0.000103	0.0707	26.4	0.0387	<0.0000050	0.00832	0.00358	<0.050
RSEM-R6W-SP	2/5/2021 14:00	ZH1014	M	C107964	3.88	3.28	0.0751	0.00179	0.00118	0.0248	<0.0001	<0.001	0.141	<0.00001	37.9	0.003	0.00052	0.00265	0.064	<0.0002	0.0634	33.5	0.0131	<0.0000019	0.0099	0.0064	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	4/15/2021 17:20	ZQ1506	M	C124804	2.80	2.45	0.65	0.0012	0.00141	0.448	<0.0001	<0.001	0.056	0.000022	43.7	0.002	0.00078	0.00175	0.686	0.00055	0.0224	12.4	0.0399	<0.0000019	0.0066	0.0031	
RSEM-R6W-SP	4/16/2021 11:00	ZQ1482	M	C124799	2.51	2.38	0.477	0.00129	0.00128	0.37	<0.0001	<0.001	0.056	0.000013	45.2	0.0018	0.0006	0.00117	0.412	0.0003	0.0212	12.7	0.0425	<0.0000019	0.0067	0.0027	
RSEM-R6W-SP	12/14/2021 11:45	FJ2101469-001	M	FJ2101469	3.47	4.23	0.0982	0.00304	0.00155	0.0680	<0.000100	<0.000050	0.145	0.0000346	41.8	0.00240	0.00026	0.00146	0.128	0.000083	0.0837	16.8	0.0400	<0.0000050	0.00904	0.00404	<0.050
RSEM-R6W-SP	12/14/2021 11:55	FJ2101469-002	D	FJ2101469	4.06	4.43	0.102	0.00302	0.00161	0.0668	<0.000100	<0.000050	0.146	0.0000286	42.3	0.00252	0.00026	0.00150	0.126	0.000085	0.0821	17.0	0.0395	<0.0000050	0.00934	0.00425	<0.050
RSEM-R6W-SP	12/15/2021 13:45	FJ2101472-001	M	FJ2101472	3.59	4.23	0.0093	0.00316	0.00149	0.0669	<0.000100	<0.000050	0.147	0.0000244	47.3	0.00194	0.00016	0.00123	0.018	<0.000050	0.0846	19.4	0.0308	<0.0000050	0.00972	0.00421	<0.050
RSEM-R6W-SP	12/16/2021 10:25	FJ2101483-001	M	FJ2101483	4.28	4.24	0.119	0.00313	0.00162	0.0700	<0.000100	<0.000050	0.141	0.0000253	46.2	0.00230	0.00020	0.00146	0.119	0.000060	0.0854	19.6	0.0327	<0.0000050	0.00964	0.00437	<0.050
SeptimusBeaverPond	10/15/2021 14:25	AII746	M	C178993	22.0	24.8	0.196	<0.0005	0.00116	0.112	<0.0001	<0.001	<0.05	<0.00001	76.2	<0.001	0.00042	<0.0005	0.377	<0.0002	0.0056	34.4	0.193	<0.0000019	<0.001	0.0015	
SeptimusBeaverPond	10/15/2021 14:35	AII747	M	C178993	21.6	24.8	0.0486	<0.0005	0.00111	0.113	<0.0001	<0.001	<0.05	<0.00001	78.9	<0.001	0.00029	<0.0005	0.265	<0.0002	0.0056	36.1	0.187	<0.0000019	<0.001	0.0013	
SeptimusBeaverPond	10/15/2021 14:45	AII748	M	C178993	22.4	24.5	0.0304	<0.0005	0.00107	0.105	<0.0001	<0.001	<0.05	<0.00001	76.0	<0.001	0.00025	<0.0005	0.214	<0.0002	0.0053	34.1	0.107	<0.0000019	<0.001	0.0012	
SeptimusBeaverPond	10/15/2021 15:15	AII749	M	C178993	21.4	27.6	0.123	<0.0005	0.00114	0.109	<0.0001	<0.001	<0.05	<0.00001	77.6	<0.001	0.00031	<0.0005	0.319	<0.0002	0.0055	34.2	0.1	<0.0000019	<0.001	0.0014	
SeptimusBeaverPond	10/15/2021 15:25	AII750	M	C178993	22.7	28.1	0.134	<0.0005	0.00101	0.105	<0.0001	<0.001	<0.05	<0.00001	71.0	<0.001	0.00047	<0.0005	0.326	<0.0002	0.0058	32.6	0.134	<0.0000019	<0.001	0.0017	
SeptimusBeaverPond	10/15/2021 15:35	AII751	M	C178993	21.8	28.7	0.0156	<0.0005	0.00094	0.116	<0.0001	<0.001	<0.05	<0.00001	77.4	<0.001	0.00031	<0.0005	0.188	<0.0002	0.0054	33.8	0.0791	<0.0000019	<0.001	0.0013	
SeptimusBeaverPond	10/15/2021 15:40	AII752	M	C178993	20.4	27.1	0.076	<0.0005	0.00108	0.112	<0.0001	<0.001	<0.05	<0.00001	78.6	<0.001	0.00033	<0.0005	0.374	<0.0002	0.0055	35.3	0.137	<0.0000019	<0.001	0.0016	
SeptimusBeaverPond	10/15/2021 15:50	AII753	M	C178993	19.6	20.0	0.0295	<0.0005	0.00108	0.111	<0.0001	<0.001	<0.05	<0.00001	81.8	<0.001	0.00021	<0.0005	0.344	<0.0002	0.0062	37.4	0.0599	<0.0000019	<0.001	0.0015	
South_Crusher_Sump	11/3/2021 16:00	AJX286	M	C185315	1.68	1.19	0.0342	<0.0005	0.00016	0.163	<0.0001	<0.001	<0.05	0.000041	57.7	<0.001	<0.0002	0.00056	0.076	<0.0002	0.0052	9.90	0.0037	<0.0000019	0.0026	0.0017	
WP-DS	1/13/2021 13:35	ZD9434	M	C102840	<0.50	<0.50	0.0046	<0.0005	0.00012	0.0599	<0.0001	<0.001	<0.05	0.000015	46.2	<0.001	<0.0002	<0.0005	0.015	<0.0002	0.0262	9.72	0.0037	<0.0000019	0.0013	<0.001	
WP-DS	3/18/2021 12:30	ZM8663	M	C118036	0.62	<0.50	0.0054	<0.0005	<0.0001	0.0694	<0.0001	<0.001	<0.05	<0.00001	46.5	<0.001	<0.0002	<0.0005	0.019	<0.0002	0.0241	9.71	0.0038	<0.0000019	0.0013	<0.001	
WP-DS	4/29/2021 11:50	ZS2244	M	C128572	1.41	1.04	0.0613	<0.0005	0.00016	0.0587	<0.0001	<0.001	<0.05	0.000028	41.4	0.0061	<0.0002	<0.0005	0.127	<0.0002	0.014	8.74	0.0058	<0.0000019	0.0077	0.0277	
WP-DS	6/24/2021 14:31	AAP490	M	C144894	<2.0	1.44	0.241	<0.0005	0.00035	0.0282	<0.0001	<0.001	<0.05	0.000041	26.8	<0.001	0.00027	0.00071	0.606	0.00039	0.0064	4.46	0.018	0.0000021	<0.001	0.0017	
WP-DS	7/24/2021 13:55	ACO184	M	C153467	<0.50	0.79	0.008	<0.0005	0.00013	0.0481	<0.0001	<0.001	<0.05	<0.00001	39.3	<0.001	<0.0002	<0.0005	0.036	<0.0002	0.015	6.85	0.0037	<0.0000019	0.0011	<0.001	
WP-DS	8/28/2021 14:04	AEV017	M	C163786	0.68	0.77	0.0077	<0.0005	0.00023	0.0659	<0.0001	<0.001	<0.05	0.000015	46.3	<0.001	<0.0002	<0.0005	0.024	<0.0002	0.0234	9.72	0.0041	<0.0000019	0.0014	<0.001	
WP-DS	9/18/2021 14:00	AGJ640	M	C170329	<0.50	0.84	0.0171	<0.0005	0.00014	0.0625	<0.0001	<0.001	0.051	0.000016	47.1	<0.001	<0.0002	<0.0005	0.048	<0.0002	0.0231	10.7	0.0045	<0.0000019	0.0014	0.0014	
WP-DS	10/9/2021 14:05	AHW996	M	C176835	1.96	2.20	0.114	<0.0005	0.00016	0.0404	<0.0001	<0.001	<0.05	0.000029	32.9	<0.001	<0.0002	<0.0005	0.218	<0.0002	0.0099	6.41	0.0077	<0.0000019	0.001	<0.001	
WP-DS	11/6/2021 14:20	AKD977	M	C186247	1.11	1.22	0.0338	<0.0005	0.00014	0.0396	<0.0001	<0.001	<0.05	0.000013	34.0	<0.001	<0.0002	<0.0005	0.075	<0.0002	0.0117	6.28	0.0043	0.000002	<0.001	<0.001	
WP-US	3/18/2021 12:00	ZM8662	M	C118036	0.54	<0.50	0.0038	<0.0005	<0.0001	0.0592	<0.0001	<0.001	0.053	0.000013	46.6	<0.001	<0.0002	<0.0005	<0.01	<0.0002	0.0264	9.74	0.0024	<0.0000019	0.001	<0.001	
WP-US	4/29/2021 12:20	ZS2243	M	C128572	1.28	1.02	0.0977	<0.0005	0.00018	0.0587	<0.0001	<0.001	<0.05	0.000028	41.3	0.01	<0.0002	<0.0005	0.167	<0.0002	0.0143	8.49	0.0059	<0.0000019	0.0117	0.0447	
WP-US	6/24/2021 14:13	AAP491	M	C144894	<2.0	1.37	0.336	<0.0005	0.00032	0.0218	<0.0001	<0.001	<0.05	0.000047	33.5	<0.001	0.00026	0.00099	0.458	0.00042	0.0255	9.44	0.017	<0.0000019	<0.001	<0.001	
WP-US	7/24/2021 13:34	ACO183	M	C153467	1.04	1.04	0.0697	<0.0005	0.00014	0.0459	<0.0001	<0.001	<0.05	0.000023	39.7	<0.001	<0.0002	0.00054	0.172	<0.0002	0.0131	6.66	0.0067	<0.0000019	0.0011	<0.001	
WP-US	8/28/2021 13:14	AEV016	M	C163786	0.81	0.67	0.0353	<0.0005	0.00027	0.0581	<0.0001	<0.001	<0.05	0.000014	43.9	<0.001	<0.0002	<0.0005	0.093	<0.0002	0.0252	9.45	0.0055	<0.0000019	0.0012	<0.001	
WP-US	9/18/2021 12:15	AGJ639	M	C170329	<0.50	0.65	0.0789	<0.0005	0.00019	0.0603	<0.0001	<0.001	0.056	0.00002	46.0	<0.001	<0.0002	0.00085	0.189	<0.0002	0.0242	10.4	0.0078	<0.0000019	0.0012	<0.001	
WP-US	10/9/2021 12:45	AHW995	M	C176835	2.09	2.10	0.123	<0.0005	0.00019	0.0384	<0.0001	<0.001	<0.05	0.000026	32.0	<0.001	<0.0002	<0.0005	0.246	<0.0002	0.01	6.36	0.0084	<0.0000019	0.001	<0.001	
WP-US	11/6/2021 12:06	AKD976	M	C186247	1.30	1.35	0.0381	<0.0005	0.00012	0.0366	<0.0001	<0.001	<0.05	0.000014	32.9	<0.001	<0.0002	0.00067	0.087	<0.0002	0.0116	6.13	0.0046	<0.0000019	<0.001	<0.001	

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not repo

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
85-Discharge	1/23/2021 17:00	ZF1639	M	C105090																									
85-EOP	5/25/2021 14:30	ZW1247	M	C135423																									
85-EOP	11/12/2021 13:40	AKS806	M	C188248																									
85-EOP	11/13/2021 14:00	AKS761	M	C188237																									
85-EOP	11/14/2021 15:00	AKS792	M	C188243																									
85-EOP	11/15/2021 9:30	AKY314	M	C189131																									
85-IDZ	1/23/2021 17:00	ZF1642	M	C105090																									
85-IDZ	5/25/2021 15:00	ZW1248	M	C135423																									
85-IDZ	11/13/2021 14:30	AKS762	M	C188237																									
85-IDZ	11/14/2021 15:30	AKS793	M	C188243																									
85-IDZ	11/15/2021 9:00	AKY313	M	C189131																									
85-US	5/25/2021 15:20	ZW1249	M	C135423																									
AC_E_HAIRPIN_DITCH	3/17/2021 12:25	ZM7314	M	C117752	5.42	0.00088	32.8	0.00056	4.32	0.312	<15	0.000627	<0.025	0.183	0.00372	0.077	0.278	0.0021	0.0263	<0.0005	0.00031	0.079	<0.0001	<0.001	<0.05	0.000018	26.5	<0.001	<0.0002
AC-E-Hairpin-Sump	7/25/2021 13:00	ACO187	M	C153467	3.78	0.00109	4.06	<0.00002	58.0	0.998	69.4	0.000046	<0.005	<0.005	0.00102	<0.005	0.0124	<0.0001	0.0459	<0.0005	0.00038	0.027	<0.0001	<0.001	0.479	0.000142	135	<0.001	0.00123
AC-E-HP-BT	6/19/2021 13:30	AAF586	M	C143352	3.50	0.00109	4.73	<0.00002	76.6	0.849	77.3	0.000037	<0.005	0.0077	0.00105	<0.005	0.0101	0.00028	0.0065	<0.0005	0.00029	0.038	<0.0001	<0.001	0.392	0.000014	107	<0.001	0.00041
AC-E-Sump	3/20/2021 13:25	ZN1533	M	C118497	3.46	0.00164	4.45	<0.00002	35.4	0.227	82.9	0.000021	<0.005	0.0168	0.0016	<0.005	0.0176	0.0004	0.0383	0.00056	0.00045	0.061	<0.0001	<0.001	<0.05	0.000165	77.5	0.0027	0.00538
AC-E-Sump	6/19/2021 13:40	AAF587	M	C143352	9.70	0.00201	3.55	<0.0001	418	0.914	521	<0.00005	<0.025	<0.025	0.0028	<0.025	<0.025	0.0008	0.068	0.0016	0.00093	0.054	<0.0001	<0.001	0.533	0.000066	142	0.0089	0.0042
AC-E-Sump	9/29/2021 17:00	AHF737	M	C174181	11.8	0.00138	2.42	<0.00002	612	1.42	644	0.000031	<0.005	<0.005	0.00382	<0.005	<0.005	0.00012	0.077	<0.0025	0.00078	0.042	<0.0005	<0.005	0.776	0.000067	203	0.0019	0.0023
AC-W-Hairpin-Sump	5/20/2021 13:15	ZV5700	M	C134406	4.17	0.00259	4	<0.00002	20.4	0.501	47.5	<0.00001	<0.005	<0.005	0.00274	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00017	0.055	<0.0001	<0.001	<0.05	0.000014	117	<0.001	<0.0002
AC-W-Sump	3/17/2021 12:55	ZM7315	M	C117752	5.01	0.0029	11.7	0.00016	109	0.401	155	0.000211	<0.025	0.108	0.00337	<0.025	0.489	0.00228	0.021	<0.0005	0.00031	0.064	<0.0001	<0.001	0.075	0.00152	112	<0.001	0.0326
Area_23_BT	10/30/2021 13:10	AJO166	M	C184013	4.69	0.00249	18.3	0.000155	58.1	0.308	16.2	0.000222	<0.01	0.177	0.00761	0.026	0.06	0.00294	<0.003	0.00153	0.00074	0.451	<0.0001	<0.001	0.057	<0.00001	69.9	<0.001	<0.0002
Area_23_BT	11/2/2021 11:30	AJU793	M	C184881	7.00	0.00325	37.9	0.00088	44.5	0.527	34.7	0.000989	<0.005	0.142	0.00641	0.0726	0.432	0.00052	0.0221	0.00626	0.00183	0.481	<0.0001	<0.001	0.07	<0.00001	67.8	<0.001	0.00021
Area_23_BT	11/25/2021	FJ2101334-005	M	FJ2101334	3.16	0.00403	5.04	0.000012	117	0.396	34.7	0.000034	0.00040	0.0103	0.00502	0.00430	0.0078	0.00020	0.0020	0.00239	0.00188	0.403	<0.000100	0.00005	0.133	<0.0000050	43.7	<0.00050	0.00061
Area_30_EOP	4/3/2021 15:50	ZO6454	M	C121575	2.01	0.00087	2.02	<0.00002	3.86	0.688	59.3	0.000013	<0.005	0.0324	0.00271	<0.005	0.0097	0.00048	<0.003	<0.0005	0.00019	0.029	<0.0001	<0.001	<0.05	0.000018	62.4	<0.001	0.00025
Area_30_EOP	5/22/2021 13:05	ZV6992	M	C134601	4.81	0.00747	1.06	<0.00002	11.1	4.45	303	<0.00001	<0.005	<0.005	0.00692	<0.005	0.0065	0.00014	0.0044	<0.0005	0.00056	0.074	<0.0001	<0.001	<0.05	<0.00001	269	<0.001	0.00032
Area_30_EOP	7/18/2021 11:00	ACC419	M	C151549	4.60	0.00552	1.35	0.000022	17.9	8.5	552	0.000033	<0.005	<0.005	0.00419	<0.005	0.0503	0.00016	0.0303	<0.0005	0.00048	0.091	<0.0001	<0.001	0.051	0.000028	446	<0.001	<0.0002
Area_30_EOP	7/22/2021 15:55	ACL552	M	C152988	3.68	0.00764	1.78	<0.00002	7.71	3.99	241	0.000015	<0.005	<0.005	0.00412	<0.005	0.018	0.0001	0.0077	<0.0005	0.00025	0.058	<0.0001	<0.001	<0.05	<0.00001	258	<0.001	<0.0002
Area_30_EOP	8/7/2021 13:30	ADM462	M	C157545	3.47	0.00886	1.41	<0.00002	7.45	4.82	308	0.000014	<0.005	<0.005	0.0053	<0.005	0.0408	<0.0001	<0.003	<0.0005	0.00031	0.084	<0.0001	<0.001	<0.05	0.000013	240	<0.001	<0.0002
Area_30_EOP	10/7/2021 14:55	AHU815	M	C176559	4.70	0.00624	0.629	<0.00002	13.5	7.29	621	0.000018	<0.005	<0.005	0.00949	<0.005	0.0261	0.00038	<0.003	<0.0005	0.00037	0.033	<0.0001	<0.001	<0.05	0.000012	476	<0.001	0.00024
Area_30_SP	6/10/2021 15:40	ZY8803	M	C140527	3.87	0.0113	0.301	<0.00002	11.6	5.82	333	0.000011	<0.005	<0.005	0.00417	<0.005	0.0074	<0.0001	0.0047	<0.0005	0.0005	0.069	<0.0001	<0.001	<0.05	<0.00001	261	<0.001	0.00023
Area_30_SP	6/17/2021 15:00	AAC468	M	C142866	3.96	0.0104	0.617	<0.00002	9.52	7.4	475	0.000017	<0.005	<0.005	0.00455	<0.005	0.0218	0.00036	<0.003	<0.0005	0.00028	0.056	<0.0001	<0.001	<0.05	<0.00001	299	<0.001	<0.0002
Area_30_SP	8/22/2021 15:30	AEI416	M	C161433	3.16	0.0043	4.15	<0.00002	5.54	2.4	143	0.000042	<0.005	0.0385	0.00256	0.0055	0.0105	0.00229	<0.003	<0.0005	0.00027	0.05	<0.0001	<0.001	<0.05	0.000021	142	<0.001	0.00022
Area_30_SP	9/15/2021 12:35	AGD171	M	C169361	4.86	0.0103	0.346	<0.00002	12.8	9.38	568	<0.00001	<0.005	<0.005	0.00851	<0.005	0.0194	0.00019	<0.003	<0.0005	0.00022	0.035	<0.0001	<0.001	<0.05	<0.00001	386	<0.001	<0.0002
Area_30_SP	10/15/2021 14:15	AII745	M	C178993	4.62	0.0044	1.18	<0.00004	13.4	8.69	545	<0.00002	<0.01	0.014	0.00996	<0.01	0.015	0.00042	0.0062	<0.001	0.00049	0.037	<0.0002	<0.002	<0.1	<0.00002	494	<0.002	<0.0004
Area_30_SP	11/5/2021 12:40	AKA068	M	C185757	1.10	0.00088	0.284	<0.00002	2.22	1.07	55.2	<0.00001	<0.005	<0.005	0.00139	<0.005	0.308	<0.0001	0.0061	<0.0005	0.00036	0.016	0.00038	<0.001	<0.05	0.000219	66.9	<0.001	<0.0002
Area_A_N_Ditch	3/18/2021 9:30	ZM8872	M	C118063	2.08	0.00024	3.18	0.000022	4.03	0.0805	5.0	0.000038	<0.005	0.0233	0.00082	<0.005	0.0117	0.00052	0.0038	<0.0005	0.00032	0.093	<0.0001	<0.001	<0.05	0.000031	28.1	<0.001	<0.0002
Area_A_N_Ditch	5/2/2021 14:00	ZS6048	M	C129102	1.36	0.00036	4.31	<0.00002	4.63	0.151	14.4	0.000014	<0.005	0.0094	0.00106	<0.005	<0.005	0.00029	<0.003	<0.0005	0.00029	0.207	<0.0001	<0.001	<0.05	<0.00001	66.9	<0.001	<0.0002
Area_A_N_Ditch	7/24/2021 13:55	ACO405	M	C153513	1.12	0.00043	3.78	<0.00002	5.12	0.157	12.1	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	0.0349	<0.0005	0.00021	0.229	<0.0001	<0.001	<0.05	0.000015	75.4	<0.001	<0.0002
Area_A_N_Ditch	8/29/2021 11:20	AEV015	M	C163786	1.35	0.00104	4.32	<0.00002	5.97	0.185	18.2	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00032	0.275	<0.0001	<0.001	<0.05	0.000014	86.3	<0.001	<0.0002
Area_A_N_Ditch	9/20/2021 11:50	AGM224	M	C170680	1.41	0.00024	4.42	<0.00002	7.38	0.175	26.3	<0.00001	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00031	0.266	<0.0001	<0.001	<0.05	0.000024	82.2	<0.001	<0.0002
Area_A_N_Ditch	10/9/2021 13:50	AHX008	M	C176838	1.30	0.00022	5.08	<0.00002	5.76	0.173	20.2	<0.00001	<0.005	<0.005	0.00092	<0.005	<0.005	0.00018	<0.003	<0.0005	0.00021	0.228	<0.0001	<0.001	<0.05	0.000014	77.3	<0.001	<0.0002
Area_A_N_Ditch	10/28/2021 13:45	AJL913	M	C183658	1.16	0.00026	4.67	<0.00002	3.72	0.152	11.9	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00021	0.225	<0.0001	<0.001	<0.05	0.000012	70.6	<0.001	<0.0002
Area_A_NE_Sump	11/4/2021 14:35	AKA063	M	C185756																									
Area-A	3/19/2021 16:35	ZN1577	M	C118512	0.631	<0.0001	1.54	<0.00002	2.09	0.062	7.9	0.000027	<0.005	0.0216	0.00037	<0.005	0.0089	0.00048	0.0108	<0.0005	<0.0001	0.055	<0.0001	<0.001	<0.05	0.000019	19.4	<0.001	<0.0002
Area-A	10/6/2021 16:10	AHR789	M	C176098	2.23	0.00201	4.64	<0.00002	17.5	0.233	19.5	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.0002	0.128	<0.0001	<0.001	<0.05	<0.00001	62.2	<0.001	<0.0002
CVC_BT	5/11/2021 12:10	ZU0200	M	C131591	134	0.0113	1.21	<0.0001	55.8	3.19	392	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005	0.035	<0.0025	<0.0005	0.236	<0.0005	<0.005	<0.25	<0.00005	858	0.486	0.0022
DC-discharge-R6-WP	4/4/2021 11:40	ZO6462	M	C121580	3.92	0.00288	17.1	0.000147	29.0	0.24	22.7	0.000155	<0.01	0.11	0.00233	0.024	0.054	0.00347	0.0268	0.00134	0.00126	0.452	<0.0001	<0.001	<0.05	<0.00001	43.6	<0.001	0.00049
DC-discharge-R6-WP	4/8/2021 11:00	ZP1741	M	C122796	6.21	0.00404	27.6	0.0005	33.5	0.359	24	0.000321	<0.025	<0.025	0.00498	0.041	0.208	<0.0005	0.0041	0.0017	0.00127	0.565	<0.0001	<0.001	<0.05	<0.00001	39.5	<0.001	0.00058
DC-discharge-R6-WP	5/19/2021 11:55	ZV3572	M	C134016	3.18	0.00286	11	0.000374	30.6	0.357	22.9	0.000174	<0.01	0.025	0.00491	0.025	0.162	0.00026	0.0066	0.0009	0.00088	0.205	<0.0001	<0.001	<0.05	<0.00001	42.0	<0.001	0.00035
DC-discharge-R6-WP	6/2/2021 12:35	ZX5269	M	C138096	5.33	0.00436	31.1	0.0005	67.6	0.357	34	0.000409	<0.025	0.117	0.00367	0.056	0.213	0.00125	0.0175	0.00103	0.00121	0.116	<0.0001	<0.001	0.093	<0.00001	37.5	<0.001	<0.0002
DC-discharge-R6-WP	7/20/2021 15:10	ACH818	M	C152456	2.55	0.0033	8.07	0.00007	17.0	0.199	21.1	0.00007	<0.005	0.0384	0.00155	0.0157	0.0307	0.00023	0.033	<0.0005	0.00034	0.096	<0.0001	<0.001	<0.05	<0.00001	50.6	<0.001	<0.0002
Earthfill_Dam_DS_OUT	11/17/2021 11:30	AKY311	M	C189131	1.42	0.00198	3.86	<0.00002	6.51	0.13	7.8	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	0.0036	<0.0005	0.00025	0.103	<0.0001	<0.001	<0.05	<0.00001	56.1	<0.001	<0.0002
Earthfill_Dam_DS_OUT	11/25/2021	FJ2101334-003	M	FJ2101334	2.23	0.00174	5.00	<0.000010	9.81	0.150	25.3	<0.000010	<0.00010	<0.00030	0.00148	<0.00050	<0.0030	<0.00020	0.0030	<0.00010	0.00013	0.126	<0.000100	0.00005	0.015	0.0000073	70.9	<0.00050	<0.00010
Earthfill_Dam_DS_OUT	12/2/2021 13:00	FJ2101375-003	M	FJ2101375	1.93	0.00168	4.62	<0.000010	10.3	0.151	22.8	<0.000010	<0.00010	<0.00030	0.00135	<0.00050	<0.0030	<0.00020	0.0043	<0.00010	0.00018	0.112	<0.000100	0.00005	0.015	<0.0000050	59.7	<0.00050	<0.00010
Earthfill_Dam_DS_OUT	12/7/2021 11:15	FJ2101420-002	M	FJ2101420	1.77	0.00157	4.32	<0.000010	8.68	0.145	22.3	<0.000010	<0.00010	<0.00030	0.00132	<0.00050	<0.0030	<0.00020	0.0034	<0.00010	0.00021	0.114	<0.000100	0.00005	0.015	0.0000057	60.4	<0.00050	<0.00010
Earthfill_Dam_DS_OUT	12/15/2021 11:45	FJ2101472-003	M	FJ2101472	1.75	0.00181	4.60	<0.000010	9.10	0.148	20.5	<0.000010	<0.00010	<0.00030	0.00123	<0.00050	<0.0030	<0.00020	0.0035	<0.00010	0.00018	0.116	<0.000100	0.00005	0.015	0.0000056	63.8	<0.00050	<0.00010
Earthfill_Dam_DS_OUT	12/23/2021 12:45	FJ2101512-002	M	FJ2101512	1.14	0.00103	3.60	<0.000010	5.79	0.130	13.6	<0.000010	<0.00010	<0.00030	0.000891	<0.00050	<0.0030	<0.00020	0.0039	<0.00010	0.00015	0.096	<0.000100	0.00005	0.011	<0.0000050	50.3	<0.00050	<0.00010
Earthfill_Dam_DS_OUT	12/30/2021 12:15	FJ2200029-003	M	FJ2200029	0.886	0.000857	3.14	<0.000010	4.13	0.127	10.8	<0.000010	<0.00010	<0.00030	0.000645	<0.00050	<0.0030	<0.00020	0.0061	<0.00010	0.00016	0.084	<0.000100	0.00005	<0.010	<0.0000050	37.8	<0.00050	<0.00010
Earthfill_Dam_E_BT	10/13/2021 13:00	AIE379	M	C178189	0.561	0.00014	2.12	<0.00002	3.35	0.118	3.2	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.078	<0.0001	<0.001	<0.05	<0.00001	46.9	<0.001	<0.0002
Earthfill_Dam_E_BT	10/23/2021 11:30	AIZ374	M	C181550	1.86	0.00099	4.73	<0.00002	9.01	0.14	23.1	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	0.0062	<0.0005	0.00021	0.1	<0.0001	<0.001	<0.05	0.000011	57.0	<0.001	<0.0002
Earthfill_Dam_E_BT	11/2/2021 15:20	AJU792	M	C184881	1.95	0.00192	4.31	<0.00002	10.7	0.13	17.7	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.103	<0.0001	<0.001	<0.05	<0.00001	62.4	<0.001	<0.0002
Earthfill_Dam_E_BT	11/6/2021 11:40	AKD994	M	C186250	1.42	0.00175	3.37	<0.00002	10.3	0.138	12.8	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	0.0072	<0.0005	0.00035	0.098	<0.0001	<0.001	<0.05	<0.00001	52.8	<0.001	<0.0002
Earthfill_Dam_E_BT	11/7/2021 11:25	AKE004	M	C186252	1.54	0.002	3.54	<0.00002	10.9	0.151	12.1	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	0.0076	<0.0005	0.00036	0.099	<0.0001	<0.001	<0.05	<0.00001	52.5	<0.001	<0.0002
Earthfill_Dam_E_BT	11/10/2021 17:00	AKN278	M	C187468	1.67	0.0024	3.68	<0.00002	9.97	0.139	13.6	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001	0.0053	<0.0005	0.00024	0.101	<0.0001	<0.001	<0.05	0.000019	56.6	<0.001	<0.0002
Earthfill_Dam_E_Sump	7/4/2021 16:05	ABD995	M	C147267	0.758	0.00077	2.77	<0.00002	5.57	0.138	9.6	<0.00001	<0.005	<0.005	0.00061	<0.005	0.008	<0.0001	0.0514	<0.0005	0.00023	0.102	<0.0001	<0.001	<0.05	0.000011	40.4	<0.001	<0.0002
Earthfill_Dam_E_Sump	7/8/2021 14:40	ABM762	M	C148925	0.764	0.0013	2.6	<0.00002	11.1	0.167	16.8	<0.00001	<0.005	<0.005	0.00078	<0.005	<0.005	<0.0001	0.0357	<0.0005	0.00022	0.103	<0.0001	<0.001	<0.05	<0.00001	48.5	<0.001	<0.0002
Earthfill_Dam_E_Sump	7/11/2021 14:30	ABP674	M	C149459	0.777	0.00127	2.59	<0.00002	13.5	0.158	17.0	<0.00001	<0.005	<0.005	0.00083	<0.005	<0.005	<0.0001	0.113	<0.0005	0.00026	0.102	<0.0001	<0.001	<0.05	<0.00001	49.3	<0.001	<0.0002
Earthfill_Dam_E_Sump	7/16/2021 12:00	ABZ189	M	C151029	0.867	0.00067	2.87	<0.00002	6.65	0.137	8.9	<0.00001	<0.005	<0.005	0.00073	<0.005	<0.005	0.00011	0.105	<0.0005	0.00032	0.092	<0.0001	<0.001	<0.05	0.00002	40.2	<0.001	<0.0002
Earthfill_Dam_E_Sump	9/23/2021 17:30	AGT568	M	C171954	1.02	0.00072	2.71	<0.00002	4.44	0.148	14.3	<0.00001	<0.005	<0.005	0.0007	<0.005	<0.005	<0.0001	0.0035	<0.0005	0.00018	0.088	<0.0001	<0.001	<0.05	0.000011	45.7	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Earthfill_Dam_E_Sump	9/24/2021 13:15	AGV855	M	C172263	1.05	0.00058	3.32	<0.00002	4.35	0.149	11.9	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	0.0056	<0.0005	0.0002	0.096	<0.0001	<0.001	<0.05	<0.00001	46.5	<0.001	<0.0002
Earthfill_Dam_E_Sump	9/25/2021 16:10	AGX499	M	C172580	1.15	0.00086	2.91	<0.00002	5.21	0.167	15.9	0.000014	<0.005	<0.005	0.00087	<0.005	0.0142	<0.0001	0.0209	<0.0005	0.00066	0.12	<0.0001	<0.001	<0.05	0.000012	45.8	<0.001	0.00028
Earthfill_Dam_E_Sump	9/26/2021 16:10	AGX368	M	C172552	1.03	0.001	3.04	<0.00002	4.66	0.163	16.5	0.000011	<0.005	0.0074	0.00068	<0.005	0.0052	0.00037	0.0036	<0.0005	0.00023	0.093	<0.0001	<0.001	<0.05	<0.00001	46.4	<0.001	<0.0002
Earthfill_Dam_E_Sump	9/27/2021 12:00	AGZ870	M	C172958	0.935	0.00088	2.68	<0.00002	4.58	0.148	9.8	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	0.0035	<0.0005	0.00021	0.099	<0.0001	<0.001	<0.05	<0.00001	47.7	<0.001	<0.0002
Earthfill_Dam_E_Sump	9/28/2021 13:20	AHC018	M	C173431	0.948	0.00084	2.8	<0.00002	4.59	0.161	13.5	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	0.0046	<0.0005	0.0002	0.096	<0.0001	<0.001	<0.05	0.000012	48.5	0.0011	<0.0002
EarthfillDam-W-Sump	5/11/2021 14:50	ZU0127	M	C131574	0.895	0.00115	3.85	<0.00002	9.42	0.146	10.6	0.000013	<0.005	0.0216	0.00066	<0.005	<0.005	0.00098	<0.003	<0.0005	0.0002	0.121	<0.0001	<0.001	<0.05	<0.00001	41.4	<0.001	0.00031
EarthfillDam-W-Sump	5/12/2021 13:50	ZU2106	M	C131920	0.569	0.00095	2.4	<0.00002	4.19	0.122	7.1	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.076	<0.0001	<0.001	<0.05	<0.00001	38.3	<0.001	<0.0002
EarthfillDam-W-Sump	5/13/2021 13:50	ZU4966	M	C132331	0.472	0.0009	2.21	<0.00002	2.84	0.108	6.5	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.057	<0.0001	<0.001	<0.05	<0.00001	34.3	<0.001	<0.0002
EarthfillDam-W-Sump	6/24/2021 11:55	AAQ175	M	C144970	1.27	0.0016	3.72	<0.00002	65.5	0.21	24.7	0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	0.0251	<0.0005	0.00042	0.074	<0.0001	<0.001	0.078	<0.00001	54.6	<0.001	<0.0002
EarthfillDam-W-Sump	6/30/2021 13:15	AAZ007	M	C146528	1.03	0.00159	3.38	<0.00002	34.2	0.225	24.3	<0.00001	<0.005	<0.005	0.0013	<0.005	0.0088	0.00012	0.0846	<0.0005	0.00035	0.089	<0.0001	<0.001	<0.05	0.000013	46.7	<0.001	0.00021
EarthfillDam-W-Sump	7/1/2021 13:05	ABB249	M	C146903	0.977	0.00185	3.35	<0.00002	29.0	0.218	17.7	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	0.0001	0.0521	<0.0005	0.00034	0.089	<0.0001	<0.001	<0.05	<0.00001	44.6	<0.001	<0.0002
EarthfillDam-W-Sump	7/2/2021 11:40	ABB259	M	C146905	0.866	0.00164	3.18	<0.00002	21.8	0.21	14.1	<0.00001	<0.005	<0.005	0.00076	<0.005	<0.005	<0.0001	0.0503	<0.0005	0.00028	0.089	<0.0001	<0.001	<0.05	<0.00001	44.9	<0.001	<0.0002
EarthfillDam-W-Sump	7/3/2021 13:10	ABE025	M	C147272	0.793	0.0016	2.67	<0.00002	23.9	0.163	17.6	<0.00001	<0.005	<0.005	0.00083	<0.005	0.0554	<0.0001	0.0648	<0.0005	0.00025	0.088	<0.0001	<0.001	<0.05	<0.00001	45.2	<0.001	<0.0002
EarthfillDam-W-Sump	7/4/2021 10:40	ABD990	M	C147267	0.766	0.00174	2.61	<0.00002	21.2	0.153	13.7	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	0.0001	0.155	<0.0005	0.0003	0.089	<0.0001	<0.001	<0.05	<0.00001	43.4	<0.001	<0.0002
EarthfillDam-W-Sump	7/5/2021 11:00	ABG201	M	C147674	0.745	0.00154	2.4	<0.00002	17.6	0.155	13.8	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	0.055	<0.0005	0.0002	0.081	<0.0001	<0.001	<0.05	<0.00001	42.7	<0.001	<0.0002
EarthfillDam-W-Sump	7/6/2021 13:30	ABJ180	M	C148228	0.685	0.00144	2.26	<0.00002	13.8	0.163	11.5	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	<0.0001	0.0975	<0.0005	0.00014	0.076	<0.0001	<0.001	<0.05	<0.00001	39.5	<0.001	<0.0002
EarthfillDam-W-Sump	7/7/2021 13:30	ABK530	M	C148516	0.708	0.00156	2.39	<0.00002	13.4	0.164	11.7	<0.00001	<0.005	<0.005	0.00066	<0.005	0.0063	<0.0001	0.0966	<0.0005	0.00017	0.078	<0.0001	<0.001	<0.05	<0.00001	42.8	<0.001	<0.0002
EarthfillDam-W-Sump	7/8/2021 18:00	ABM759	M	C148925	0.818	0.00154	2.63	<0.00002	18.5	0.154	12.7	0.000012	<0.005	<0.005	0.00071	<0.005	<0.005	0.00011	0.231	<0.0005	0.00027	0.091	<0.0001	<0.001	<0.05	<0.00001	42.7	<0.001	<0.0002
EarthfillDam-W-Sump	7/9/2021 11:30	ABM746	M	C148923	0.721	0.00155	2.39	<0.00002	18.3	0.136	12.3	<0.00001	<0.005	<0.005	0.00063	<0.005	0.0302	<0.0001	0.164	<0.0005	0.00028	0.083	<0.0001	<0.001	<0.05	<0.00001	43.0	<0.001	<0.0002
EarthfillDam-W-Sump	7/10/2021 15:40	ABP526	M	C149429	0.726	0.0018	2.42	<0.00002	17.9	0.142	13.9	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	0.00015	0.159	<0.0005	0.00023	0.085	<0.0001	<0.001	<0.05	<0.00001	42.9	<0.001	<0.0002
EarthfillDam-W-Sump	7/11/2021 14:00	ABP671	M	C149459	0.553	0.00153	2.08	<0.00002	4.90	0.125	8.2	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	0.0088	<0.0005	<0.0001	0.068	<0.0001	<0.001	<0.05	<0.00001	41.3	<0.001	<0.0002
EarthfillDam-W-Sump	7/12/2021 6:00	ABP852	M	C149486	0.662	0.00161	2.28	<0.00002	11.2	0.14	10.8	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	0.0001	0.0767	<0.0005	0.00014	0.077	<0.0001	<0.001	<0.05	<0.00001	42.2	<0.001	<0.0002
EarthfillDam-W-Sump	7/13/2021 16:50	ABU090	M	C150243	0.762	0.00158	2.37	<0.00002	16.5	0.161	15.7	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	0.0681	<0.0005	0.00024	0.079	<0.0001	<0.001	<0.05	<0.00001	46.8	<0.001	<0.0002
EarthfillDam-W-Sump	7/14/2021 11:50	ABX611	M	C150851	0.539	0.00131	2.06	<0.00002	3.97	0.138	7.5	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.067	<0.0001	<0.001	<0.05	<0.00001	41.2	<0.001	<0.0002
EarthfillDam-W-Sump	7/15/2021 13:20	ABY386	M	C150960	0.877	0.00157	2.88	<0.00002	14.1	0.174	20.6	<0.00001	<0.005	0.0059	0.00082	<0.005	<0.005	0.00012	0.0633	<0.0005	0.00024	0.083	<0.0001	<0.001	<0.05	<0.00001	45.3	<0.001	<0.0002
EarthfillDam-W-Sump	7/16/2021 11:30	ABZ185	M	C151029	0.730	0.00159	2.32	<0.00002	12.8	0.169	18.3	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	0.0656	<0.0005	0.00013	0.074	<0.0001	<0.001	<0.05	<0.00001	43.1	<0.001	<0.0002
EarthfillDam-W-Sump	7/16/2021 11:40	ABZ190	D	C151029	0.743	0.00156	2.32	<0.00002	15.0	0.165	19.5	0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	0.0675	<0.0005	0.00014	0.076	<0.0001	<0.001	<0.05	<0.00001	44.0	<0.001	<0.0002
EarthfillDam-W-Sump	7/17/2021 13:15	ACC202	M	C151533	0.629	0.0012	2.01	<0.00002	4.75	0.134	5.3	0.000018	<0.005	<0.005	0.00054	<0.005	0.0186	<0.0001	0.0165	<0.0005	0.00014	0.062	<0.0001	<0.001	<0.05	<0.00001	37.3	<0.001	<0.0002
EarthfillDam-W-Sump	7/18/2021 15:20	ACC414	M	C151549	0.574	0.0014	2.15	<0.00002	4.78	0.137	8.4	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.069	<0.0001	<0.001	<0.05	<0.00001	41.0	<0.001	<0.0002
EarthfillDam-W-Sump	7/19/2021 16:20	ACF035	M	C151946	0.562	0.00133	2.12	<0.00002	4.10	0.15	12.6	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.063	<0.0001	<0.001	<0.05	<0.00001	38.7	<0.001	<0.0002
EarthfillDam-W-Sump	7/20/2021 11:40	ACH812	M	C152456	0.599	0.00155	2.19	<0.00002	4.64	0.125	5.0	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0116	<0.0001	<0.003	<0.0005	<0.0001	0.059	<0.0001	<0.001	<0.05	<0.00001	39.9	<0.001	<0.0002
EarthfillDam-W-Sump	7/27/2021 16:30	ACT042	M	C154246	0.524	0.0012	2.19	<0.00002	5.72	0.125	<3.0	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.074	<0.0001	<0.001	<0.05	<0.00001	39.8	<0.001	<0.0002
EarthfillDam-W-Sump	7/30/2021 12:30	ACY655	M	C155288	0.592	0.00136	2.28	<0.00002	6.16	0.156	7.8	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.086	<0.0001	<0.001	<0.05	<0.00001	42.3	<0.001	<0.0002
EarthfillDam-W-Sump	8/1/2021 15:30	ADC693	M	C155924	0.598	0.00121	2.23	<0.00002	6.21	0.152	10.6	<0.00001	<0.005	<0.005	0.00049	<0.005	0.0061	<0.0001	<0.003	<0.0005	<0.0001	0.088	<0.0001	<0.001	<0.05	<0.00001	42.9	<0.001	<0.0002
EarthfillDam-W-Sump	8/5/2021 16:20	ADK137	M	C157133	0.605	0.00144	2.23	<0.00002	4.79	0.149	6.6	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.068	<0.0001	<0.001	<0.05	<0.00001	39.2	<0.001	<0.0002
EarthfillDam-W-Sump	8/6/2021 11:15	ADK124	M	C157131	0.602	0.0014	2.24	<0.00002	4.86	0.152	7.9	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.068	<0.0001	<0.001	<0.05	<0.00001	38.5	<0.001	<0.0002
EarthfillDam-W-Sump	8/7/2021 15:45	ADM459	M	C157545	0.624	0.0014	2.25	<0.00002	4.62	0.153	8.3	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.059	<0.0001	<0.001	<0.05	<0.00001	39.5	<0.001	<0.0002
EarthfillDam-W-Sump	8/8/2021 15:45	ADN229	M	C157651	0.564	0.0014	2.1	<0.00002	4.51	0.132	4.3	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0073	<0.0001	<0.003	<0.0005	<0.0001	0.065	<0.0001	<0.001	<0.05	<0.00001	41.7	<0.001	<0.0002
EarthfillDam-W-Sump	8/9/2021 10:55	ADM369	M	C157523	0.620	0.00133	2.22	<0.00002	4.53	0.149	7.9	<0.00001	<0.005	<0.005	0.00062	<0.005	0.0102	<0.0001	<0.003	<0.0005	<0.0001	0.066	<0.0001	<0.001	<0.05	<0.00001	38.7	<0.001	<0.0002
EarthfillDam-W-Sump	8/10/2021 15:00	ADP901	M	C158211	0.565	0.00087	2.18	<0.00002	6.02	0.141	4.8	<0.00001	<0.005	<0.005	0.00052	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.086	<0.0001	<0.001	<0.05	<0.00001	46.6	<0.001	<0.0002
EarthfillDam-W-Sump	8/11/2021 15:30	ADR990	M	C158615	0.585	0.00087	2.22	<0.00002	6.28	0.149	5.4	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.087	<0.0001	<0.001	<0.05	<0.00001	47.1	<0.001	<0.0002
EarthfillDam-W-Sump	8/12/2021 16:30	ADU540	M	C159104	6.02	0.009	0.857	<0.00002	356	0.466	251	0.000026	<0.005	<0.005	0.00788	<0.005	<0.005	0.00014	0.007	0.00088	0.00059	0.041	<0.0001	<0.001	0.234	<0.00001	86.0	<0.001	<0.0002
EarthfillDam-W-Sump	8/13/2021 11:20	ADU547	M	C159105	0.669	0.00093	2.45	<0.00002	7.19	0.179	10.5	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.094	<0.0001	<0.001	<0.05	<0.00001	44.9	<0.001	<0.0002
EarthfillDam-W-Sump	8/14/2021 17:30	ADW202	M	C159435	0.688	0.00105	2.45	<0.00002	7.18	0.192	10.9	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.099	<0.0001	<0.001	<0.05	<0.00001	48.0	<0.001	<0.0002
EarthfillDam-W-Sump	8/15/2021 16:00	ADW429	M	C159489	0.682	0.00107	2.5	<0.00002	7.13	0.193	11.1	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.1	<0.0001	<0.001	<0.05	<0.00001	47.5	<0.001	<0.0002
EarthfillDam-W-Sump	8/16/2021 16:30	ADY264	M	C159861	0.697	0.00101	2.64	<0.00002	7.37	0.188	13.5	<0.00001	<0.005	<0.005	0.00071	<0.005	<0.005	<0.0001	0.0073	<0.0005	<0.0001	0.105	<0.0001	<0.001	<0.05	<0.00001	50.1	<0.001	<0.0002
EarthfillDam-W-Sump	8/17/2021 15:30	AED547	M	C160795	0.676	0.00114	2.53	<0.00002	7.61	0.174	12.3	<0.00001	<0.005	<0.005	0.00061	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00013	0.104	<0.0001	<0.001	<0.05	<0.00001	50.0	<0.001	<0.0002
EarthfillDam-W-Sump	8/18/2021 16:30	AED518	M	C160793	0.690	0.00112	2.51	<0.00002	7.92	0.172	12.7	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.104	<0.0001	<0.001	<0.05	<0.00001	49.9	<0.001	<0.0002
EarthfillDam-W-Sump	8/19/2021 18:00	AEF599	M	C161077	0.655	0.00099	2.4	<0.00002	6.78	0.177	8.7	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.105	<0.0001	<0.001	<0.05	<0.00001	50.2	<0.001	<0.0002
EarthfillDam-W-Sump	8/20/2021 11:50	AEF524	M	C161059	0.708	0.00098	2.52	<0.00002	8.32	0.182	11.5	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.106	<0.0001	<0.001	<0.05	<0.00001	51.1	<0.001	<0.0002
EarthfillDam-W-Sump	8/21/2021 17:20	AEI350	M	C161420	0.705	0.00115	2.48	<0.00002	7.37	0.193	13.6	<0.00001	<0.005	<0.005	0.00069	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.111	<0.0001	<0.001	<0.05	<0.00001	52.5	<0.001	<0.0002
EarthfillDam-W-Sump	8/22/2021 16:30	AEI412	M	C161433	0.659	0.00061	2.53	<0.00002	7.89	0.173	12.4	<0.00001	<0.005	<0.005	0.0007	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.109	<0.0001	<0.001	<0.05	<0.00001	51.6	<0.001	<0.0002
EarthfillDam-W-Sump	8/23/2021 14:00	AEL592	M	C161925	0.713	0.0011	2.6	<0.00002	8.55	0.186	12.4	<0.00001	<0.005	<0.005	0.00072	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00015	0.106	<0.0001	<0.001	<0.05	<0.00001	48.9	<0.001	<0.0002
EarthfillDam-W-Sump	8/24/2021 14:30	AEN131	M	C162291	0.604	0.0015	2.39	<0.00002	5.17	0.154	9.6	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.075	<0.0001	<0.001	<0.05	0.000012	45.1	<0.001	<0.0002
EarthfillDam-W-Sump	8/25/2021 12:00	AEP242	M	C162703	0.767	0.00083	2.54	<0.00002	8.07	0.207	10.6	<0.00001	<0.005	<0.005	0.00073	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.11	<0.0001	<0.001	<0.05	<0.00001	51.3	<0.001	<0.0002
EarthfillDam-W-Sump	8/26/2021 14:35	AER557	M	C163145	0.675	0.00117	2.34	<0.00002	5.02	0.165	5.9	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.075	<0.0001	<0.001	<0.05	<0.00001	43.8	<0.001	<0.0002
EarthfillDam-W-Sump	8/27/2021 11:15	AER548	M	C163144	0.809	0.00107	2.3	<0.00002	5.66	0.206	7.1	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.077	<0.0001	<0.001	<0.05	<0.00001	43.4	<0.001	<0.0002
EarthfillDam-W-Sump	8/28/2021 14:20	AEV128	M	C163811	0.514	0.00142	2.06	<0.00002	4.49	0.132	4.2	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.067	<0.0001	<0.001	<0.05	<0.00001	43.6	<0.001	<0.0002
EarthfillDam-W-Sump	8/29/2021 14:20	AEV012	M	C163786	0.654	0.00156	2.23	<0.00002	4.90	0.163	5.3	<0.00001	<0.005	<0.005	0.00068	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00015	0.079	<0.0001	<0.001	<0.05	<0.00001	45.7	<0.001	<0.0002
EarthfillDam-W-Sump	8/30/2021 13:45	AEX833	M	C164176	0.527	0.00146	2.02	<0.00002	4.62	0.136	3.8	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.069	<0.0001	<0.001	<0.05	<0.00001	45.2	<0.001	<0.0002
EarthfillDam-W-Sump	8/31/2021 13:35	AFA833	M	C164798	0.532	0.00146	2.06	<0.00002	4.70	0.137	4.5	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.069	<0.0001	<0.001	<0.05	<0.00001	45.7	<0.001	<0.0002
EarthfillDam-W-Sump	9/1/2021 12:20	AFC992	M	C165103	0.586	0.00089	2.45	<0.00002	8.83	0.178	8.0	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.103	<0.0001	<0.001	<0.05	<0.00001	53.7	<0.001	<0.0002
EarthfillDam-W-Sump	9/2/2021 15:30	AFF608	M	C165563	0.569	0.00085	2.35	<0.00002	8.62	0.173	8.1	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.101	<0.0001	<0.001	<0.05	<0.00001	54.7	<0.001	<0.0002
EarthfillDam-W-Sump	9/3/2021 11:40	AFF866	M	C165588	0.640	0.00066	2.36	<0.00002	8.28	0.173	16.7	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.115	<0.0001	<0.001	<0.05	<0.00001	53.4	<0.001	<0.0002
EarthfillDam-W-Sump	9/4/2021 12:50	AFH290	M	C165785	0.692	0.00067	2.95	<0.00002	8.96	0.201	14.5	<0.00001	<0.005	<0.005	0.00081	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.114	<0.0001	<0.001	<0.05	<0.00001	51.8	<0.001	<0.0002
EarthfillDam-W-Sump	9/5/2021 16:10	AFI821	M	C166081	0.631	0.00067	2.35	<0.00002	8.15	0.171	14.8	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.101	<0.0001	<0.001	<0.05	<0.00001	54.3	<0.001	<0.0002
EarthfillDam-W-Sump	9/6/2021 10:40	AFI720	M	C166063	0.765	0.00072	2.57	<0.00002	9.37	0.199	17.5	<0.00001	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.107	<0.0001	<0.001	<0.05	<0.00001	55.6	<0.001	<0.0002
EarthfillDam-W-Sump	9/7/2021 14:40	AFL346	M	C166557	0.748	0.00054	2.48	<0.00002	9.24	0.196	18.0	<0.00001	<0.005	<0.005	0.00076	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.11	<0.0001	<0.001	<0.05	<0.00001	55.9	<0.001	<0.0002
EarthfillDam-W-Sump	9/8/2021 14:30	AFO058	M	C167059	0.762	0.00068	2.56	<0.00002	10.3	0.201	22.6	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.114	<0.0001	<0.001	<0.05	<0.00001	53.3	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EarthfillDam-W-Sump	9/9/2021 16:40	AFQ846	M	C167445	0.779	0.00068	2.62	<0.00002	10.5	0.209	16.5	<0.00001	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.114	<0.0001	<0.001	<0.05	<0.00001	52.9	<0.001	<0.0002
EarthfillDam-W-Sump	9/10/2021 11:10	AFQ882	M	C167449	0.766	0.00074	2.57	<0.00002	10.3	0.203	17.1	<0.00001	<0.005	<0.005	0.00089	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.12	<0.0001	<0.001	<0.05	0.000011	56.2	<0.001	<0.0002
EarthfillDam-W-Sump	9/11/2021 4:30	AFV354	M	C168029	0.767	0.00074	2.58	<0.00002	10.2	0.21	15.0	<0.00001	<0.005	<0.005	0.00087	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00013	0.114	<0.0001	<0.001	<0.05	<0.00001	52.9	<0.001	<0.0002
EarthfillDam-W-Sump	9/12/2021 12:10	AFV418	M	C168037	0.780	0.00074	2.7	<0.00002	10.4	0.218	15.3	<0.00001	<0.005	<0.005	0.00092	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.113	<0.0001	<0.001	<0.05	<0.00001	52.1	<0.001	<0.0002
EarthfillDam-W-Sump	9/13/2021 6:00	AFV245	M	C168020	0.784	0.00076	2.66	<0.00002	10.3	0.228	16.1	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.115	<0.0001	<0.001	<0.05	<0.00001	52.7	<0.001	<0.0002
EarthfillDam-W-Sump	9/16/2021 14:55	AGG331	M	C169805	0.658	0.00145	2.32	<0.00002	5.90	0.18	13.1	<0.00001	<0.005	<0.005	0.00083	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.073	<0.0001	<0.001	<0.05	<0.00001	47.2	<0.001	<0.0002
EarthfillDam-W-Sump	9/17/2021 11:45	AGG309	M	C169799	0.670	0.00145	2.33	<0.00002	6.14	0.179	13.1	<0.00001	<0.005	<0.005	0.00087	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.083	<0.0001	<0.001	<0.05	<0.00001	51.9	<0.001	<0.0002
EarthfillDam-W-Sump	9/18/2021 15:45	AGJ636	M	C170329	0.692	0.00138	2.37	<0.00002	6.74	0.175	14.9	<0.00001	<0.005	<0.005	0.00086	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.086	<0.0001	<0.001	<0.05	<0.00001	52.3	<0.001	<0.0002
EarthfillDam-W-Sump	9/19/2021 13:15	AGJ666	M	C170331	0.861	0.00179	2.63	<0.00002	10.9	0.212	17.3	<0.00001	<0.005	<0.005	0.00098	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.148	<0.0001	<0.001	<0.05	<0.00001	57.0	<0.001	<0.0002
EarthfillDam-W-Sump	9/20/2021 13:15	AGM225	M	C170680	0.807	0.00037	2.71	<0.00002	2.20	0.14	8.0	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	0.0038	<0.0005	0.00018	0.098	<0.0001	<0.001	<0.05	<0.00001	37.8	<0.001	<0.0002
EarthfillDam-W-Sump	9/21/2021 14:10	AGO665	M	C171134	0.827	0.00162	2.41	<0.00002	11.5	0.204	18.1	<0.00001	<0.005	<0.005	0.00099	<0.005	0.0106	<0.0001	<0.003	<0.0005	0.00013	0.14	<0.0001	<0.001	<0.05	0.000014	59.0	<0.001	<0.0002
EarthfillDam-W-Sump	9/22/2021 14:20	AGR068	M	C171568	0.799	0.0016	2.5	<0.00002	11.2	0.213	15.9	<0.00001	<0.005	<0.005	0.00094	<0.005	<0.005	<0.0001	0.0035	<0.0005	0.00011	0.136	<0.0001	<0.001	<0.05	0.000036	58.1	<0.001	<0.0002
EarthfillDam-W-Sump	9/23/2021 14:10	AGT566	M	C171954	0.755	0.00164	2.37	<0.00002	10.6	0.211	17.2	<0.00001	<0.005	<0.005	0.00092	<0.005	<0.005	<0.0001	0.0033	<0.0005	0.00012	0.128	<0.0001	<0.001	<0.05	0.00003	57.1	<0.001	<0.0002
EarthfillDam-W-Sump	9/24/2021 12:15	AGV851	M	C172263	0.751	0.00153	3.05	<0.00002	10.9	0.211	18.5	<0.00001	<0.005	<0.005	0.00096	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.132	<0.0001	<0.001	<0.05	0.000032	61.0	<0.001	<0.0002
EarthfillDam-W-Sump	9/25/2021 12:15	AGX497	M	C172580	0.825	0.00188	2.6	<0.00002	12.0	0.229	24.0	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.0001	0.126	<0.0001	<0.001	<0.05	0.000024	58.4	<0.001	<0.0002
EarthfillDam-W-Sump	9/26/2021 10:45	AGX365	M	C172552	0.788	0.00161	2.47	<0.00002	11.4	0.217	17.8	<0.00001	<0.005	<0.005	0.00096	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.128	<0.0001	<0.001	<0.05	0.000024	59.3	<0.001	<0.0002
EarthfillDam-W-Sump	9/27/2021 10:20	AGZ869	M	C172958	0.850	0.00197	2.59	<0.00002	13.4	0.23	16.7	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.136	<0.0001	<0.001	<0.05	0.000022	60.5	<0.001	<0.0002
EarthfillDam-W-Sump	9/28/2021 16:00	AHC017	M	C173431	0.882	0.00217	2.63	<0.00002	14.7	0.23	14.2	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00013	0.139	<0.0001	<0.001	<0.05	0.000023	66.2	<0.001	<0.0002
EarthfillDam-W-Sump	9/29/2021 16:30	AHF734	M	C174181	0.932	0.0024	4.7	<0.00002	28.9	0.227	21.0	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	<0.0001	0.0035	<0.0005	<0.0001	0.143	<0.0001	<0.001	<0.05	0.00003	64.8	<0.001	<0.0002
EarthfillDam-W-Sump	9/30/2021 16:20	AHF784	M	C174188	0.965	0.00267	4.95	<0.00002	26.7	0.225	21.7	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	0.0038	<0.0005	0.00014	0.148	<0.0001	<0.001	<0.05	0.000021	62.7	<0.001	<0.0002
EarthfillDam-W-Sump	10/1/2021 13:00	AHF787	M	C174189	0.922	0.00249	4.27	<0.00002	25.4	0.213	22.1	<0.00001	<0.005	<0.005	0.00093	<0.005	<0.005	<0.0001	0.0039	<0.0005	0.00012	0.146	<0.0001	<0.001	<0.05	0.00002	65.0	<0.001	<0.0002
EarthfillDam-W-Sump	10/2/2021 14:30	AHI564	M	C174687	0.989	0.00254	4.67	<0.00002	29.8	0.223	22.1	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.152	<0.0001	<0.001	<0.05	0.000018	67.3	<0.001	<0.0002
EarthfillDam-W-Sump	10/3/2021 15:00	AHI568	M	C174689	0.952	0.00195	3.74	<0.00002	23.9	0.216	20.8	<0.00001	<0.005	<0.005	0.00096	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.135	<0.0001	<0.001	<0.05	0.000012	68.8	<0.001	<0.0002
EarthfillDam-W-Sump	10/4/2021 10:00	AHI555	M	C174685	0.975	0.00188	4.21	<0.00002	29.3	0.22	21.1	<0.00001	<0.005	<0.005	0.00093	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.153	<0.0001	<0.001	<0.05	0.000018	67.1	<0.001	<0.0002
EarthfillDam-W-Sump	10/5/2021 11:40	AHO718	M	C175650	0.892	0.00229	2.81	<0.00002	17.5	0.179	20.7	<0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	0.0074	<0.0005	0.00013	0.144	<0.0001	<0.001	<0.05	0.000015	61.6	<0.001	<0.0002
EarthfillDam-W-Sump	10/6/2021 14:45	AHR786	M	C176098	0.961	0.00203	3.15	<0.00002	18.8	0.212	14.4	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.138	<0.0001	<0.001	<0.05	0.000015	61.9	<0.001	<0.0002
EarthfillDam-W-Sump	10/7/2021 12:10	AHU811	M	C176559	0.881	0.00249	2.61	<0.00002	18.9	0.199	10.0	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	0.0046	<0.0005	<0.0001	0.135	<0.0001	<0.001	<0.05	0.000017	61.0	<0.001	<0.0002
EarthfillDam-W-Sump	10/8/2021 11:30	AHU799	M	C176557	0.882	0.00213	2.75	<0.00002	18.5	0.201	11.9	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.0001	0.134	<0.0001	<0.001	<0.05	<0.00001	60.9	<0.001	<0.0002
EarthfillDam-W-Sump	10/9/2021 16:40	AHX006	M	C176838	1.01	0.00188	3.58	<0.00002	18.9	0.225	22.6	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.14	<0.0001	<0.001	<0.05	0.000016	62.6	<0.001	<0.0002
EarthfillDam-W-Sump	10/10/2021 15:00	AHX002	M	C176837	1.02	0.00175	3.28	<0.00002	18.2	0.211	21.0	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.132	<0.0001	<0.001	<0.05	<0.00001	61.0	<0.001	<0.0002
EarthfillDam-W-Sump	10/11/2021 12:15	AHY661	M	C177084	1.04	0.00205	3.4	<0.00002	19.1	0.207	14.3	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.139	<0.0001	<0.001	<0.05	0.000011	62.7	<0.001	<0.0002
EarthfillDam-W-Sump	10/12/2021 11:25	AIB245	M	C177600	0.895	0.00227	2.63	<0.00002	19.5	0.19	10.9	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.134	<0.0001	<0.001	<0.05	0.000012	61.4	<0.001	<0.0002
EarthfillDam-W-Sump	10/13/2021 14:25	AIE375	M	C178189	0.867	0.00205	2.36	<0.00002	16.7	0.176	6.6	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.146	<0.0001	<0.001	<0.05	<0.00001	64.7	<0.001	<0.0002
EarthfillDam-W-Sump	10/14/2021 13:50	AIG810	M	C178651	0.874	0.00202	2.4	<0.00002	16.6	0.173	4.9	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.135	<0.0001	<0.001	<0.05	0.000011	57.6	<0.001	<0.0002
EarthfillDam-W-Sump	10/15/2021 13:05	AII744	M	C178993	0.949	0.00173	3.38	<0.00002	17.8	0.224	20.8	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00011	0.136	<0.0001	<0.001	<0.05	<0.00001	61.4	<0.001	<0.0002
EarthfillDam-W-Sump	10/16/2021 12:25	AIL332	M	C179338	0.863	0.00179	2.29	<0.00002	15.9	0.169	5.5	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.0001	0.129	<0.0001	<0.001	<0.05	0.000011	56.2	<0.001	<0.0002
EarthfillDam-W-Sump	10/17/2021 23:35	AIL268	M	C179325	0.867	0.00185	2.3	<0.00002	16.6	0.174	6.0	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.125	<0.0001	<0.001	<0.05	0.000014	54.0	<0.001	<0.0002
EarthfillDam-W-Sump	10/19/2021 16:10	AIR753	M	C180384	1.06	0.00201	3.62	<0.00002	17.7	0.225	22.3	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.13	<0.0001	<0.001	<0.05	<0.00001	55.4	<0.001	<0.0002
EarthfillDam-W-Sump	10/20/2021 17:00	AIT536	M	C180689	1.04	0.00193	3.47	<0.00002	20.1	0.216	21.7	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	0.0045	<0.0005	<0.0001	0.137	<0.0001	<0.001	<0.05	<0.00001	58.1	<0.001	<0.0002
EarthfillDam-W-Sump	10/21/2021 15:30	AIW014	M	C181069	0.972	0.00194	3.4	<0.00002	19.0	0.207	20.2	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	0.0038	<0.0005	<0.0001	0.135	<0.0001	<0.001	<0.05	<0.00001	56.3	<0.001	<0.0002
EarthfillDam-W-Sump	10/22/2021 12:00	AIW019	M	C181072	0.951	0.00181	3.3	<0.00002	17.4	0.195	19.3	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	0.0062	<0.0005	<0.0001	0.124	<0.0001	<0.001	<0.05	0.000019	55.5	<0.001	<0.0002
EarthfillDam-W-Sump	10/23/2021 14:30	AIZ373	M	C181550	0.954	0.0018	3.16	<0.00002	17.2	0.211	19.4	<0.00001	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	0.0071	<0.0005	<0.0001	0.119	<0.0001	<0.001	<0.05	0.000012	54.8	<0.001	<0.0002
EarthfillDam-W-Sump	10/24/2021 14:30	AIZ353	M	C181544	0.959	0.00175	3.27	<0.00002	17.9	0.195	19.8	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.13	<0.0001	<0.001	<0.05	0.000012	56.7	<0.001	<0.0002
EarthfillDam-W-Sump	10/25/2021 7:00	AIZ360	M	C181547	0.994	0.00169	3.38	<0.00002	18.3	0.212	21.3	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.131	<0.0001	<0.001	<0.05	0.000014	57.1	<0.001	<0.0002
Farmers-Pond-EOP	5/18/2021 10:30	ZV2804	M	C133850																									
L3-DC-DS	3/19/2021 15:45	ZN1580	M	C118512																									
L3-DC-DS	3/28/2021 16:10	ZN9525	M	C120093																									
L3-DC-DS	3/31/2021 18:20	ZO4120	M	C121130																									
L3-DC-DS	4/1/2021 10:40	ZO4128	M	C121132																									
L3-DC-DS	4/3/2021 10:20	ZO6456	M	C121575																									
L3-DC-DS	4/5/2021 10:40	ZO7525	M	C121801																									
L3-DC-DS	4/9/2021 15:55	ZP3596	M	C123204																									
L3-DC-DS	4/14/2021 17:30	ZP9476	M	C124397																									
L3-DC-DS	5/5/2021 17:30	ZT3128	M	C130491																									
L3-DC-DS	5/6/2021 14:30	ZT3108	M	C130484																									
L3-DC-DS	5/25/2021 16:10	ZW1246	M	C135423																									
L3-DC-DS	5/27/2021 18:00	ZW4838	M	C136103																									
L3-DC-DS	6/17/2021 12:30	AAC471	M	C142866																									
L3-DC-DS	8/22/2021 17:40	AEI419	M	C161433																									
L3-DC-US	3/19/2021 15:40	ZN1579	M	C118512																									
L3-DC-US	3/28/2021 16:00	ZN9524	M	C120093																									
L3-DC-US	3/31/2021 18:15	ZO4119	M	C121130																									
L3-DC-US	4/1/2021 10:30	ZO4127	M	C121132																									
L3-DC-US	4/3/2021 10:10	ZO6455	M	C121575																									
L3-DC-US	4/5/2021 10:30	ZO7524	M	C121801																									
L3-DC-US	4/9/2021 15:45	ZP3595	M	C123204																									
L3-DC-US	4/14/2021 17:45	ZP9475	M	C124397																									
L3-DC-US	5/5/2021 17:40	ZT3127	M	C130491																									
L3-DC-US	5/6/2021 14:20	ZT3107	M	C130484																									

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
L3-DC-US	5/25/2021 16:00	ZW1245	M	C135423																									
L3-DC-US	5/27/2021 17:50	ZW4839	M	C136103																									
L3-DC-US	6/17/2021 13:00	AAC473	M	C142866																									
L3-DC-US	8/22/2021 18:00	AEI420	M	C161433																									
L3-E-DC-Sump	4/5/2021 10:20	ZO7523	M	C121801																									
L3-W-DC-EOP	3/31/2021 17:30	ZO4118	M	C121130																									
L3-W-DC-EOP	4/1/2021 10:20	ZO4126	M	C121132																									
L3-W-DC-EOP	4/5/2021 10:10	ZO7522	M	C121801																									
L3-W-DC-EOP	5/2/2021 16:55	ZS6052	M	C129102																									
L3-W-DC-EOP	5/4/2021 15:30	ZS9947	M	C129944																									
L3-W-DC-EOP	5/5/2021 17:20	ZT3126	M	C130491																									
L3-W-DC-EOP	5/6/2021 14:10	ZT3106	M	C130484																									
L3-W-DC-EOP	5/18/2021 10:05	ZV2803	M	C133850																									
L3-W-DC-EOP	5/21/2021 9:20	ZV5658	M	C134400																									
L3-W-DC-EOP	5/25/2021 15:50	ZW1244	M	C135423																									
L3-W-DC-EOP	5/27/2021 17:40	ZW4840	M	C136103																									
L3-W-DC-EOP	6/7/2021 16:20	ZY3091	M	C139476																									
L3-W-DC-EOP	6/17/2021 12:50	AAC472	M	C142866																									
L3-W-DC-EOP	7/21/2021 18:40	ACH935	M	C152481																									
L3-W-DC-EOP	7/22/2021 11:50	ACL557	M	C152988																									
L3-W-DC-EOP	8/6/2021 10:00	ADK127	M	C157131																									
L3-W-DC-EOP	8/7/2021 9:40	ADM464	M	C157545																									
L3-W-DC-EOP	11/6/2021 9:55	AKD996	M	C186250																									
L3-W-DC-Sump	3/19/2021 15:30	ZN1578	M	C118512																									
L3-W-DC-Sump	5/15/2021 10:45	ZU7898	M	C132915																									
L3-W-DC-Sump	7/20/2021 16:25	ACH820	M	C152456																									
L3-W-DC-Sump	8/22/2021 17:30	AEI421	M	C161433																									
LBCD-Sump-BT	3/30/2021 11:30	ZO2680	M	C120790	12.3	0.0076	11.5	<0.0001	1490	1.16	936	0.000076	<0.025	0.087	0.00444	<0.025	0.031	0.00344	0.017	0.0041	0.00323	0.026	<0.0005	<0.005	0.558	<0.00005	52.7	<0.005	0.0032
LBCD-Sump-BT	6/9/2021 11:10	ZY6851	M	C140198	2.85	0.00444	4.23	<0.00002	172	0.458	165	0.000018	<0.005	<0.005	0.00221	<0.005	<0.005	<0.0001	0.0034	<0.0005	0.00022	0.054	<0.0001	<0.001	0.244	<0.00001	116	<0.001	<0.0002
LBCD-Sump-BT	9/18/2021 16:00	AGJ638	M	C170329	1.81	0.00166	6.76	0.000033	7.02	0.193	16.9	0.000064	<0.005	0.0796	0.00118	0.0101	0.0271	0.00085	0.0054	<0.0005	0.00016	0.084	<0.0001	<0.001	<0.05	<0.00001	47.4	<0.001	<0.0002
LBEX_B1	3/19/2021 11:00	ZM8863	M	C118061	9.89	0.00318	6.9	0.000078	17.3	0.393	53.1	0.000099	<0.005	0.0588	0.00367	0.01	0.0292	0.00113	0.0036	<0.0005	0.00044	0.035	<0.0001	<0.001	<0.05	0.000037	66.1	<0.001	0.00028
LBEX_B1	4/6/2021 12:30	ZO9478	M	C122250	4.72	0.00308	4.6	<0.00002	29.6	0.625	62.7	0.000034	<0.005	0.0433	0.00463	<0.005	0.0084	0.00114	<0.003	<0.0005	0.0004	0.036	<0.0001	<0.001	<0.05	0.000032	84.7	<0.001	0.0003
LBEX_B1	5/2/2021 11:05	ZS6045	M	C129102	4.25	0.00302	3.48	<0.00002	45.3	1.33	103	0.000026	<0.005	0.0159	0.00623	<0.005	0.0061	0.00039	<0.003	<0.0005	0.00023	0.028	<0.0001	<0.001	0.076	0.000031	106	<0.001	<0.0002
LBEX_B1	5/13/2021 16:45	ZU4940	M	C132324	5.10	0.00848	2.46	<0.00002	78.3	0.925	125	0.000016	<0.005	<0.005	0.00762	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00028	0.025	<0.0001	<0.001	0.155	<0.00001	110	<0.001	<0.0002
LBEX_B1	6/13/2021 9:50	ZZ1992	M	C141057	6.33	0.00581	3.63	<0.00002	139	0.69	134	0.000026	<0.005	<0.005	0.00902	<0.005	<0.005	0.00021	<0.003	<0.0005	0.00048	0.024	<0.0001	<0.001	0.202	<0.00001	94.7	<0.001	<0.0002
LBEX_B1	7/19/2021 10:35	ACF038	M	C151946	6.26	0.00434	2.91	<0.00002	124	0.716	138	0.000019	<0.005	<0.005	0.00954	<0.005	<0.005	0.0007	0.08	<0.0005	0.0007	0.027	<0.0001	<0.001	0.136	<0.00001	84.6	<0.001	<0.0002
LBEX_B1	8/28/2021 15:35	AEV127	M	C163811	5.15	0.0102	3.99	<0.00002	67.3	0.61	91.4	0.000032	<0.005	0.014	0.00719	<0.005	0.006	0.00031	<0.003	<0.0005	0.00026	0.056	<0.0001	<0.001	0.123	<0.00001	111	<0.001	<0.0002
LBEX_B1	9/20/2021 15:10	AGM226	M	C170680	6.94	0.00372	4.99	<0.00002	181	0.723	154	0.000017	<0.005	<0.005	0.0111	<0.005	<0.005	0.00029	0.0068	<0.0005	0.00033	0.023	<0.0001	<0.001	0.247	<0.00001	101	<0.001	<0.0002
LBEX_B1	10/10/2021 15:55	AHX003	M	C176837	5.86	0.0016	5.08	<0.00002	159	0.628	121	0.000016	<0.005	<0.005	0.0103	<0.005	<0.005	0.00019	<0.003	<0.0005	0.00024	0.019	<0.0001	<0.001	0.212	<0.00001	88.6	<0.001	<0.0002
LBEX_B1	11/7/2021 16:10	AKE005	M	C186252	6.67	0.00657	2.79	<0.00002	55.8	0.523	91.9	0.000018	<0.005	0.0116	0.00619	<0.005	0.0144	0.0002	0.007	<0.0005	0.00033	0.049	<0.0001	<0.001	0.084	0.000025	101	<0.001	0.00059
LBEX_PAG_SUMP	8/7/2021 17:30	ADM463	M	C157545	9.90	0.0102	3.53	<0.00002	49.3	0.679	496	0.000118	<0.005	0.0082	0.0244	<0.005	2.5	0.00085	27.1	<0.0005	<0.0001	0.054	0.00474	<0.001	0.098	0.0207	279	0.0017	0.311
LBEX_PAG_SUMP	9/16/2021 16:05	AGG333	M	C169805	11.4	0.00866	4.62	<0.00002	183	0.944	527	0.000084	<0.005	0.0311	0.00458	<0.005	0.287	0.00066	0.0284	<0.0005	0.00023	0.018	<0.0001	<0.001	0.18	0.00364	309	<0.001	0.0851
LBEX-B0	4/8/2021 16:05	ZP1744	M	C122796	3.96	0.00398	4.55	<0.00002	194	1.1	458	0.000046	<0.005	<0.005	0.0272	<0.005	0.108	0.00014	<0.006	<0.001	0.00025	0.015	<0.0002	<0.002	0.25	0.000834	312	<0.002	0.0249
LBEX-B0	5/23/2021 10:05	ZV8623	M	C134923	4.93	0.00276	3.58	<0.00004	222	1.12	389	<0.00002	<0.01	<0.01	0.0291	<0.01	0.016	<0.0002	<0.006	<0.001	0.00044	0.015	<0.0002	<0.002	0.37	0.000025	235	<0.002	0.00183
LBEX-B0	7/19/2021 10:55	ACF039	M	C151946	5.54	0.00152	3.91	<0.00002	182	1.25	427	0.000034	<0.005	0.0106	0.0382	<0.005	0.159	0.00027	0.0107	<0.0005	0.00029	0.017	<0.0001	<0.001	0.269	0.000424	277	<0.001	<0.0002
LBEX-B0	9/16/2021 16:25	AGG334	M	C169805	5.27	0.00086	3.98	<0.00002	224	1.16	474	0.000035	<0.005	<0.005	0.028	<0.005	0.103	<0.0001	0.0599	<0.0005	0.00025	0.015	<0.0001	<0.001	0.328	0.000912	289	<0.001	0.0123
LBEX-B0	10/17/2021 10:20	AIL269	M	C179325	3.54	0.00333	3.34	<0.00002	152	0.866	246	0.000033	<0.005	<0.005	0.0283	<0.005	0.0604	0.00033	0.0313	<0.0005	0.00017	0.014	<0.0001	<0.001	0.281	0.000475	247	<0.001	0.00529
LBEX-B0	11/7/2021 16:30	AKE006	M	C186252	4.25	0.00102	4.3	<0.00002	211	1.08	449	0.00004	<0.005	0.0075	0.0327	<0.005	0.151	0.00033	0.0425	<0.0005	0.00023	0.013	<0.0001	<0.001	0.35	0.00107	279	<0.001	0.013
LBGC-Debris-US	3/19/2021 11:45	ZM8868	M	C118061																									
LBGC-Debris-US	3/28/2021 14:00	ZN9520	M	C120093																									
LBGC-Debris-US	4/1/2021 12:05	ZO4129	M	C121132																									
LBGC-Debris-US	4/6/2021 13:15	ZO9476	M	C122250																									
LBGC-Debris-US	4/29/2021 14:00	ZS2294	M	C128584																									
LBGC-Debris-US	5/8/2021 11:40	ZT6591	M	C130995																									
LBGC-Debris-US	5/12/2021 14:40	ZU2128	M	C131927																									
LBGC-Debris-US	5/18/2021 11:20	ZV2805	M	C133850																									
LBGC-Debris-US	5/27/2021 14:00	ZW4836	M	C136103																									
LBGC-Debris-US	6/3/2021 14:15	ZX7155	M	C138404																									
LBGC-Debris-US	6/12/2021 15:40	ZZ1990	M	C141056																									
LBGC-Debris-US	6/18/2021 13:00	AAC478	M	C142867																									
LBGC-Debris-US	6/24/2021 10:25	AAQ178	M	C144970																									
LBGC-Debris-US	7/3/2021 14:45	ABE029	M	C147272																									
LBGC-Debris-US	7/10/2021 14:50	ABP531	M	C149429																									
LBGC-Debris-US	7/17/2021 11:35	ACC248	M	C151542																									
LBGC-Debris-US	7/22/2021 10:25	ACL555	M	C152988																									
LBGC-Debris-US	8/7/2021 17:15	ADM466	M	C157545																									
LBGC-Debris-US	8/22/2021 17:00	AEI417	M	C161433																									
LBGC-Debris-US	8/26/2021 16:15	AER562	M	C163145																									

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBGC-Debris-US	9/12/2021 15:20	AFV420	M	C168037																									
LBGC-Debris-US	9/17/2021 13:15	AGG312	M	C169799																									
LBGC-Debris-US	10/24/2021 15:00	AIZ354	M	C181544																									
LBGC-Debris-US	10/28/2021 10:20	AJL911	M	C183658																									
LBGC-OUT	3/19/2021 12:20	ZM8869	M	C118061																									
LBGC-OUT	3/28/2021 14:20	ZN9523	M	C120093																									
LBGC-OUT	4/1/2021 12:15	ZO4130	M	C121132																									
LBGC-OUT	4/6/2021 13:25	ZO9477	M	C122250																									
LBGC-OUT	4/29/2021 14:10	ZS2295	M	C128584																									
LBGC-OUT	5/8/2021 11:10	ZT6590	M	C130995																									
LBGC-OUT	5/12/2021 14:00	ZU2127	M	C131927																									
LBGC-OUT	5/18/2021 12:05	ZV2806	M	C133850																									
LBGC-OUT	5/27/2021 14:20	ZW4837	M	C136103																									
LBGC-OUT	6/3/2021 13:20	ZX7154	M	C138404																									
LBGC-OUT	6/12/2021 15:50	ZZ1991	M	C141056																									
LBGC-OUT	6/18/2021 12:40	AAC477	M	C142867																									
LBGC-OUT	6/24/2021 11:30	AAQ179	M	C144970																									
LBGC-OUT	7/3/2021 13:25	ABE028	M	C147272																									
LBGC-OUT	7/10/2021 15:00	ABP532	M	C149429																									
LBGC-OUT	7/17/2021 12:50	ACC249	M	C151542																									
LBGC-OUT	7/22/2021 10:40	ACL556	M	C152988																									
LBGC-OUT	8/7/2021 16:05	ADM465	M	C157545																									
LBGC-OUT	8/22/2021 16:50	AEI418	M	C161433																									
LBGC-OUT	8/26/2021 14:55	AER561	M	C163145																									
LBGC-OUT	9/12/2021 15:30	AFV421	M	C168037																									
LBGC-OUT	9/17/2021 12:05	AGG311	M	C169799																									
LBGC-OUT	10/24/2021 15:20	AIZ355	M	C181544																									
LBGC-OUT	10/28/2021 10:55	AJL912	M	C183658																									
MWTF-PAG-POND	1/6/2021 7:00	ZD0207	M	C100919															0.0130	0.00141	0.00083	0.067	<0.00010	<0.0010	0.115	<0.000010	83.8	0.0012	0.00090
MWTF-PAG-POND	1/13/2021 9:05	ZD7921	M	C102466															0.0218	0.00195	0.00123	0.114	<0.00010	<0.0010	0.112	<0.000010	78.3	0.0022	0.00038
MWTF-PAG-POND	1/16/2021 9:10	ZE4103	M	C103710															0.0201	0.00169	0.00136	0.101	<0.00010	<0.0010	0.125	<0.000010	81.8	0.0034	0.00146
MWTF-PAG-POND	2/10/2021 7:30	ZH5701	M	C108783															0.0778	0.00227	0.00181	0.134	<0.00010	<0.0010	0.108	<0.000010	77.9	0.0052	0.00034
MWTF-PAG-POND	2/17/2021 8:30	ZI2103	M	C110147															0.0891	0.00336	0.00211	0.108	<0.00010	<0.0010	0.103	<0.000010	66.6	0.0052	0.00027
MWTF-PAG-POND	2/25/2021 9:00	ZJ5659	M	C112156															0.0603	0.00206	0.00119	0.078	<0.00010	<0.0010	0.113	0.000177	58.5	0.0061	0.00556
MWTF-PAG-POND	3/3/2021 9:00	ZK6879	M	C114008															0.0683	0.00211	0.00157	0.086	<0.00010	<0.0010	0.113	0.000020	51.8	0.0053	0.00082
MWTF-PAG-POND	3/10/2021 9:05	ZL6784	M	C115704	6.37	0.00450	8.18	<0.000020	148	0.352	112	0.000032	<0.0050	0.0606	0.00261	0.0062	0.0196	0.00205	0.0588	0.00295	0.00168	#####	<0.00010	<0.0010	0.106	0.000026	60.2	0.0060	0.00247
MWTF-PAG-POND	3/17/2021 9:05	ZM5401	M	C117370	4.74	0.00404	8.80	0.000024	147	0.361	101	0.000041	<0.0050	0.0558	0.00283	0.0064	0.0335	0.00161	0.0349	0.00213	0.00149	0.091	<0.00010	<0.0010	0.111	0.000018	64.1	0.0036	0.00171
MWTF-PAG-POND	3/24/2021 9:00	ZN4130	M	C119033	5.24	0.00457	5.20	0.000045	167	0.390	118	0.000016	<0.0050	0.0094	0.00280	<0.0050	0.0219	0.00063	0.110	0.00326	0.00230	0.125	<0.00010	<0.0010	0.132	0.000010	51.5	0.0053	0.00046
MWTF-PAG-POND	3/31/2021 7:00	ZO2644	M	C120786	6.73	0.00492	9.31	0.000031	200	0.342	138	0.000042	<0.0050	0.0715	0.00274	0.0098	0.0229	0.00278	0.107	0.00473	0.00326	0.099	<0.00010	<0.0010	0.149	0.000017	41.2	0.0089	0.00107
MWTF-PAG-POND	4/7/2021 9:05	ZO9398	M	C122214	4.82	0.00532	6.43	<0.000020	178	0.326	146	0.000030	<0.0050	0.0427	0.00274	0.0064	0.0454	0.00185	0.424	0.00280	0.00220	0.128	<0.00010	<0.0010	0.109	0.000154	64.8	0.0074	0.00852
MWTF-PAG-POND	4/14/2021 9:05	ZP7263	M	C123955	4.07	0.00554	8.39	0.000043	234	0.432	176	0.000041	<0.0050	0.0211	0.00345	0.0074	0.0636	0.00084	0.0464	0.00326	0.00264	0.172	<0.00010	<0.0010	0.150	0.000034	62.7	0.0058	0.00388
MWTF-PAG-POND	4/21/2021 7:00	ZQ7688	M	C125899	4.94	0.00598	7.41	0.000061	247	0.424	146	0.000054	<0.0050	0.0113	0.00405	0.0109	0.0171	0.00043	0.0629	0.00479	0.00366	0.262	<0.00010	<0.0010	0.183	<0.000010	36.3	0.0037	0.00050
MWTF-PAG-POND	4/28/2021 9:15	ZR8166	M	C127754	4.05	0.00321	9.37	<0.000020	186	0.324	104	0.000031	<0.0050	0.0726	0.00250	0.0082	0.0118	0.00198	0.124	0.00346	0.00307	0.135	<0.00010	<0.0010	0.134	<0.000010	31.3	0.0052	0.00029
MWTF-PAG-POND	5/5/2021 9:05	ZS8920	M	C129714	4.63	0.00916	9.80	0.000022	253	0.321	163	0.000050	<0.0050	0.114	0.00374	0.0115	0.0159	0.00289	0.0290	0.00287	0.00258	0.140	<0.00010	<0.0010	0.175	<0.000010	44.1	0.0040	0.00067
MWTF-PAG-POND	5/12/2021 9:05	ZU0684	M	C131710	4.68	0.00947	11.6	0.000021	289	0.314	196	0.000042	<0.0050	0.0996	0.00491	0.0097	0.0148	0.00278	0.127	0.00259	0.00241	0.095	<0.00010	<0.0010	0.145	<0.000010	51.5	0.0042	0.00041
MWTF-PAG-POND	5/19/2021 8:45	ZV2958	M	C133889	6.61	0.00821	12.0	0.000026	250	0.454	176	0.000035	<0.0050	0.0582	0.00390	0.0079	0.0210	0.00193	0.0536	0.00203	0.00189	#####	<0.00010	<0.0010	0.166	<0.000010	44.6	0.0140	0.00061
MWTF-PAG-POND	5/26/2021 8:45	ZW0042	M	C135196	6.01	0.0155	11.4	0.000035	258	0.626	201	0.000055	<0.0050	0.0663	0.00433	0.0116	0.0328	0.00149	0.181	0.00302	0.00326	0.204	<0.00010	<0.0010	0.211	0.000012	62.9	0.0060	0.00259
MWTF-PAG-POND	6/1/2021 8:05	ZX2962	M	C137634	6.36	0.00743	11.9	0.000021	338	0.314	205	0.000030	<0.0050	0.0501	0.00328	0.0097	0.723	0.00204	0.119	0.00372	0.00242	#####	<0.00010	<0.0010	0.215	<0.000010	21.7	0.0103	0.00023
MWTF-PAG-POND	6/9/2021 9:15	ZY5024	M	C139832	7.55	0.00426	8.34	<0.000020	299	0.395	195	0.000023	<0.0050	0.0090	0.00282	0.0060	0.0147	0.00038	0.0768	0.00506	0.00292	0.102	<0.00010	<0.0010	0.276	<0.000010	31.6	0.0092	0.00041
MWTF-PAG-POND	6/16/2021 9:10	ZZ8821	M	C142309	7.76	0.00312	19.4	<0.000020	203	0.185	108	0.000029	<0.0050	0.0829	0.00164	0.0148	0.0274	0.00565	0.172	0.00490	0.00272	0.058	<0.00010	<0.0010	0.213	<0.000010	10.4	0.0182	0.00029
MWTF-PAG-POND	6/23/2021 9:00	AAK290	M	C144096	34.3	0.0142	83.4	0.00122	315	0.979	149	0.000433	0.0058	0.183	0.00956	0.162	0.611	0.00318											
MWTF-PAG-POND	6/30/2021 9:10	AAY996	M	C146526	7.71	0.00435	16.9	0.000057	282	0.323	125	0.000043	0.0051	0.0581	0.00347	0.0155	0.0412	0.00236	0.168	0.00731	0.00508	#####	<0.00010	<0.0010	0.352	<0.000010	20.2	0.0066	0.00022
MWTF-PAG-POND	7/7/2021 9:10	ABJ035	M	C148208	7.69	0.00421	9.18	0.000049	413	0.336	237	<0.000010	<0.0050	0.0313	0.00567	0.0164	0.0670	0.00063	0.193	0.00722	0.00365	0.081	<0.00010	<0.0010	0.388	0.000014	33.5	0.0059	<0.00020
MWTF-PAG-POND	7/14/2021 9:00	ABT742	M	C150153	11.1	0.00595	31.3	0.000269	269	0.404	111	<0.000010	0.0060	0.0724	0.00420	0.0504	0.233	0.00107	0.0394	0.00981	0.00646	0.057	<0.00010	<0.0010	0.423	<0.000010	18.4	0.0067	<0.00020
MWTF-PAG-POND	7/14/2021 9:25	ACG114	M	C152141	5.84	0.00947	5.40	0.000032	241	0.453	198	0.000020	<0.0050	0.0200	0.00476	0.0066	0.0200	0.00077	0.0272	0.00300	0.00201	0.227	<0.00010	<0.0010	0.310	<0.000010	81.9	0.0023	0.00233
MWTF-PAG-POND	7/28/2021 9:10	ACU801	M	C154587	4.88	0.00447	8.90	0.000048	202	0.284	94.7	0.000052	<0.0050	0.0309	0.00340	0.0104	0.0364	0.00043	0.0364	0.00260	0.00113	0.052	<0.00010	<0.0010	0.307	<0.000010	34.9	0.0020	0.00078
MWTF-PAG-POND	8/4/2021 9:10	ADE503	M	C156226	7.65	0.00618	10.3	<0.000020	218	0.198	98.6	0.000022	<0.0050	0.0107	0.00176	0.0083	0.0172	0.00049	0.0916	0.00538	0.00343	#####	<0.00010	<0.0010	0.255	<0.000010	6.53	0.0110	<0.00020
MWTF-PAG-POND	8/11/2021 9:15	ADP908	M	C158213	6.29	0.00303	5.45	<0.000020	153	0.264	86.9	0.000022	<0.0050	0.0180	0.00204	0.0051	0.0180	0.00049	0.390	0.00404	0.00202	0.051	<0.00010	<0.0010	0.215	<0.000010	24.2	0.0072	<0.00020
MWTF-PAG-POND	8/18/2021 9:00	ADZ879	M	C160258	4.89	0.00226	4.85	<0.000020	153	0.319	90.8	0.000033	<0.0050	0.0292	0.00213	0.0054	0.0199	0.00099	0.263	0.00410	0.00173	0.122	<0.00010	<0.0010	0.197	<0.000010	47.0	0.0053	0.00120
MWTF-PAG-POND	8/25/2021 9:10	AEN303	M	C162336	5.32	0.00444	6.66	0.000021	202	0.697	240	0.000050	<0.0050	0.0238	0.00521	<0.0050	0.185	0.00106	0.0325	0.00264	0.00060	0.079	<0.00010	<0.0010	0.255	0.000779	131	0.0048	0.0671
MWTF-PAG-POND	9/1/2021 9:10	AFA893	M	C164810	5.19	0.00290	5.95	<0.000020	223	0.379	99.2	0.000034	<0.0050	0.0147	0.00247	<0.0050	0.0363	0.00039	0.0670	0.00214	0.00081	0.111	<0.00010	<0.0010	0.278	0.000021	67.0	0.0017	0.00355
MWTF-PAG-POND	9/8/2021 9:10	AFL367	M	C166567	4.41	0.00200	4.49	<0.000020	189	0.336	119	0.000019	<0.0050	0.0078	0.00230	<0.0050	0.0129	0.00034	0.0857	0.00300	0.00113	0.091	<0.00010	<0.0010	0.226	0.000012	48.7	0.0017	0.00095
MWTF-PAG-POND	9/15/2021 9:10	AGA403	M	C168915	3.37	0.00246	5.06	<0.000020	104	0.381	98.8	0.000032	<0.0050	0.0148	0.00209	<0.0050	0.117	0.00030	0.0453	0.00183	0.00092	0.026	<0.00010	<0.0010	0.178	<0.000010	19.6	0.0023	<0.00020
MWTF-PAG-POND	9/22/2021 9:10	AGO150	M	C171030	2.68	0.00101	5.50	<0.000020	96.6	0.252	55.7	0.000029	<0.0050	0.0449	0.00150	0.0051	0.0456	0.00100	0.0421	0.00083	0.00068	0.09	<0.00010	<0.0010	0.116	0.000012	49.2	<0.0010	0.00073
MWTF-PAG-POND	9/29/2021 9:05	AHB517	M	C173306	2.38	0.00107	3.67	<0.000020	93.8	0.256	60.2	0.000027	<0.0050	0.0179	0.00136	<0.0050	0.0565	0.00043	0.0571	<0.00050	0.00040	0.069	<0.00010	<0.0010	0.116	0.000271	53.9	0.0014	0.00803
MWTF-PAG-POND	10/13/2021 9:10	AIB250	M	C177602	3.29	0.00085	5.37	<0.00010	97.8	0.168	24	<0.000050	<0.025	<0.025	0.00116	<0.025	<0.025	<0.00050	0.0872	0.00176	0.00119	0.065	<0.00010	<0.0010	0.084	<0.000010	24.5	0.0053	0.00026
MWTF-PAG-POND	10/20/2021 9:05	AIR351	M	C180292	3.49	0.00100	12.7	<0.000020	88.7	0.207	42.9	0.000044	<0.0050	0.116	0.00138	0.0104	0.0319	0.00259	0.0613	0.00209	0.00156	0.08	<0.00010	<0.0010	0.133	<0.000010	27.0	0.0043	0.00023
MWTF-PAG-POND	10/27/2021 9:05	AJF092	M	C182468	2.99	0.00116	6.07	<0.000020	93.9	0.255	48.8	0.000023	<0.0050	0.0270	0.00234	<0.0050	0.0165	0.00095	0.0209	0.00124	0.00091	0.101	<0.00010	<0.0010	0.103	<0.000010	55.5	0.0020	0.00048
MWTF-PAG-POND	11/3/2021 8:50	AJU897	M	C184917	3.09	0.00088	5.47	0.000025	93.5	0.218	39.2	0.000032	<0.0050	0.0242	0.00215	0.0056	0.0420	0.00039	0.0126	0.00246	0.00126	0.076	<0.00010	<0.0010	0.142	<0.000010	41.0	0.0026	0.00037

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWTF-PAG-POND	11/10/2021 9:00	AKL845	M	C187287	4.08	0.00135	5.94	0.000034	96.8	0.238	44.7	0.000034	<0.0050	0.0304	0.00193	0.0056	0.0367	0.00045	0.0358	0.00308	0.00140	0.103	<0.00010	<0.0010	0.115	<0.000010	38.6	0.0044	0.00050
MWTF-PAG-POND	11/17/2021 8:50	AKV482	M	C188716	3.1	0.0013	7.1	<0.00010	96	0.20	40	<0.00020	0.0018	0.12	0.0021	0.0097	0.058		0.0261	0.00217	0.00137	0.086	<0.00010	<0.0010	0.117	<0.000010	40.6	0.0028	0.00056
MWTF-PAG-POND	11/24/2021 8:50	ALZ944	M	C194563	2.35	0.00078	3.94	<0.000020	118	0.201	34.3	0.000019	<0.0050	0.0080	0.00165	<0.0050	0.0357	0.00019	0.0114	0.00137	0.00111	0.079	<0.00010	<0.0010	0.181	0.000021	47.8	<0.0010	0.00050
MWTF-PAG-POND	12/1/2021 9:00	ALV046	M	C193508	3.56	0.00190	3.68	<0.000020	86.7	0.300	53.4	0.000017	<0.0050	0.0106	0.00138	<0.0050	0.0118	0.00027	0.0510	0.00099	0.00060	0.100	<0.00010	<0.0010	0.149	0.000046	57.5	0.0018	0.00284
MWTF-PAG-POND	12/8/2021 9:15	ALF842	M	C190633	3.11	0.00305	5.58	<0.000020	98.0	0.264	38.2	0.000020	<0.0050	0.0243	0.00297	<0.0050	0.0175	0.00061	0.0514	0.00129	0.00060	0.058	<0.00010	<0.0010	0.128	<0.000010	61.9	0.0020	0.00044
MWTF-PAG-POND	12/15/2021 9:00	ALX789	M	C194026	4.40	0.00289	4.21	<0.000020	68.2	0.338	32.4	<0.000010	<0.0050	0.0089	0.00342	<0.0050	0.0213	0.00041	0.0481	0.00142	0.00102	#####	<0.00010	<0.0010	0.112	<0.000010	63.4	0.0081	0.00052
MWTF-PAG-POND	12/22/2021 8:50	AMM562	M	C196867	5.64	0.00381	20.5	0.000244	117	0.517	60.1	0.000219	<0.0050	0.0943	0.00583	0.0287	0.239	0.00021	0.0243	0.00061	0.00045	0.051	<0.00010	<0.0010	0.122	0.000056	90.1	<0.0010	0.00074
MWTF-CELL-3	1/6/2021 7:10	ZD0208	M	C100919	2.92	0.00243	4.05	<0.000020	159	0.203	107	0.000012	<0.0050	<0.0050	0.00250	0.0070	<0.0050	<0.00010	0.0147	0.00116	0.00079	0.012	<0.00010	<0.0010	0.111	<0.000010	23.3	0.0010	<0.00020
MWTF-CELL-3	1/13/2021 9:15	ZD7922	M	C102466	3.54	0.00248	5.19	<0.000020	174	0.209	115	<0.000010	<0.0050	<0.0050	0.00252	0.0083	<0.0050	<0.00010	0.0141	0.00212	0.00116	0.015	<0.00010	<0.0010	0.122	<0.000010	21.3	0.0021	<0.00020
MWTF-CELL-3	1/16/2021 9:15	ZE4104	M	C103710	3.87	0.00261	4.96	<0.000020	180	0.261	133	<0.000010	<0.0050	<0.0050	0.00251	0.0069	<0.0050	0.00012	0.0202	0.00142	0.00089	0.016	<0.00010	<0.0010	0.129	<0.000010	28.7	0.0023	0.00042
MWTF-CELL-3	2/10/2021 7:20	ZH5702	M	C108783	3.63	0.00197	5.05	<0.000020	135	0.195	82.7	<0.000010	<0.0050	<0.0050	0.00267	0.0084	<0.0050	0.00014	0.0243	0.00138	0.00122	0.018	<0.00010	<0.0010	0.111	<0.000010	23.2	0.0038	<0.00020
MWTF-CELL-3	2/17/2021 8:20	ZI2104	M	C110147	3.70	0.00181	5.45	<0.000020	133	0.168	78.6	<0.000010	<0.0050	<0.0050	0.00262	0.0091	0.0061	0.00015	0.0135	0.00272	0.00156	#####	<0.00010	<0.0010	0.114	<0.000010	20.7	0.0043	<0.00020
MWTF-CELL-3	2/25/2021 9:10	ZJ5660	M	C112156	5.06	0.00311	6.38	<0.000020	160	0.267	109	<0.000010	<0.0050	<0.0050	0.00286	0.0069	0.0058	0.00012	0.0262	0.00241	0.00153	0.02	<0.00010	<0.0010	0.116	0.000015	23.1	0.0057	0.00037
MWTF-CELL-3	3/3/2021 9:10	ZK6880	M	C114008	5.58	0.00312	4.68	<0.000020	151	0.203	101	<0.000010	<0.0050	<0.0050	0.00231	<0.0050	0.0055	0.00012	0.0170	0.00191	0.00138	0.017	<0.00010	<0.0010	0.107	0.000024	22.5	0.0059	0.00024
MWTF-CELL-3	3/10/2021 9:15	ZL6785	M	C115704	5.56	0.00381	4.94	<0.000020	166	0.223	111	<0.000010	<0.0050	<0.0050	0.00242	<0.0050	0.0053	0.00013	0.0267	0.00282	0.00151	0.026	<0.00010	<0.0010	0.114	0.000025	24.8	0.0059	0.00036
MWTF-CELL-3	3/17/2021 9:15	ZM5402	M	C117370	5.02	0.00372	5.51	<0.000020	156	0.205	110	<0.000010	<0.0050	<0.0050	0.00253	0.0060	0.0084	0.00011	0.0246	0.00265	0.00164	0.019	<0.00010	<0.0010	0.113	0.000010	22.4	0.0054	<0.00020
MWTF-CELL-3	3/24/2021 9:10	ZN4131	M	C119033	5.02	0.00415	3.98	<0.000020	145	0.238	107	<0.000010	<0.0050	<0.0050	0.00231	<0.0050	<0.0050	<0.00010	0.0354	0.00228	0.00150	0.032	<0.00010	<0.0010	0.117	0.000017	26.1	0.0049	0.00034
MWTF-CELL-3	3/31/2021 7:10	ZO2645	M	C120786	5.97	0.00437	4.66	<0.000020	186	0.241	123	<0.000010	<0.0050	<0.0050	0.00255	0.0060	<0.0050	0.00021	0.0280	0.00415	0.00252	#####	<0.00010	<0.0010	0.140	<0.000010	19.3	0.0075	0.00026
MWTF-CELL-3	4/7/2021 9:15	ZO9399	M	C122214	5.47	0.00492	4.39	<0.000020	163	0.269	133	0.000012	<0.0050	<0.0050	0.00202	0.0055	0.0056	0.00012	0.104	0.00329	0.00214	0.054	<0.00010	<0.0010	0.106	0.000030	37.8	0.0089	0.00057
MWTF-CELL-3	4/14/2021 9:15	ZP7264	M	C123955	4.05	0.00552	6.60	<0.000020	194	0.339	155	0.000012	<0.0050	<0.0050	0.00301	<0.0050	0.0078	0.00014	0.0411	0.00275	0.00232	0.086	<0.00010	<0.0010	0.122	0.000035	54.7	0.0062	0.00111
MWTF-CELL-3	4/21/2021 7:10	ZQ7689	M	C125899	3.68	0.00523	4.25	<0.000020	230	0.289	165	0.000013	<0.0050	<0.0050	0.00305	0.0052	<0.0050	<0.00010	0.0329	0.00349	0.00217	0.048	<0.00010	<0.0010	0.146	<0.000010	35.1	0.0040	0.00036
MWTF-CELL-3	4/28/2021 9:30	ZR8167	M	C127754	3.86	0.00475	4.21	<0.000020	228	0.276	145	0.000011	<0.0050	<0.0050	0.00317	<0.0050	<0.0050	0.00013	0.0630	0.00425	0.00328	0.068	<0.00010	<0.0010	0.154	<0.000010	22.5	0.0044	<0.00020
MWTF-CELL-3	5/5/2021 9:15	ZS8921	M	C129714	3.94	0.00517	5.47	<0.000020	240	0.212	132	0.000012	<0.0050	<0.0050	0.00295	0.0054	<0.0050	<0.00010	0.0580	0.00375	0.00326	0.049	<0.00010	<0.0010	0.169	<0.000010	16.6	0.0059	<0.00020
MWTF-CELL-3	5/12/2021 9:15	ZU0685	M	C131710	4.27	0.00850	6.66	<0.000020	246	0.216	159	0.000012	<0.0050	<0.0050	0.00374	<0.0050	<0.0050	0.00015	0.0456	0.00296	0.00271	0.038	<0.00010	<0.0010	0.140	<0.000010	18.2	0.0059	<0.00020
MWTF-CELL-3	5/19/2021 8:55	ZV2959	M	C133889	4.14	0.00596	5.11	<0.000020	215	0.208	130	<0.000010	<0.0050	<0.0050	0.00316	<0.0050	<0.0050	<0.00010	0.0931	0.00358	0.00286	0.047	<0.00010	<0.0010	0.150	<0.000010	18.0	0.0071	<0.00020
MWTF-CELL-3	5/26/2021 8:50	ZW0043	M	C135196	5.10	0.00645	6.34	<0.000020	276	0.350	200	0.000013	<0.0050	<0.0050	0.00353	<0.0050	<0.0050	0.00011	0.0643	0.00249	0.00268	0.056	<0.00010	<0.0010	0.192	<0.000010	30.8	0.0083	<0.00020
MWTF-CELL-3	6/1/2021 8:10	ZX2963	M	C137634	5.65	0.0109	7.02	<0.000020	303	0.358	210	0.000011	<0.0050	<0.0050	0.00407	0.0059	<0.0050	<0.00010	0.0791	0.00368	0.00297	0.071	<0.00010	<0.0010	0.216	<0.000010	27.3	0.0085	<0.00020
MWTF-CELL-3	6/9/2021 9:05	ZY5025	M	C139832	6.61	0.00918	6.41	<0.000020	335	0.315	216	0.000011	<0.0050	<0.0050	0.00327	0.0068	<0.0050	<0.00010	0.0844	0.00454	0.00292	0.068	<0.00010	<0.0010	0.220	<0.000010	23.5	0.0119	<0.00020
MWTF-CELL-3	6/16/2021 9:15	ZZ8822	M	C142309	7.48	0.00663	6.63	<0.000020	328	0.279	212	<0.000010	<0.0050	<0.0050	0.00216	0.0068	<0.0050	<0.00010	0.0531	0.00549	0.00224	0.058	<0.00010	<0.0010	0.272	<0.000010	20.8	0.0125	<0.00020
MWTF-CELL-3	6/23/2021 9:10	AAK291	M	C144096	8.44	0.00858	5.69	<0.000020	270	0.374	180	0.000015	<0.0050	<0.0050	0.00179	0.0054	<0.0050	0.00029	0.0394	0.00397	0.00183	0.045	<0.00010	<0.0010	0.285	<0.000010	23.9	0.0095	<0.00020
MWTF-CELL-3	6/30/2021 9:15	AAY997	M	C146526	9.61	0.00818	6.67	<0.000020	289	0.312	199	<0.000010	<0.0050	<0.0050	0.00165	0.0074	0.0055	0.00014	0.0317	0.00566	0.00263	0.054	<0.00010	<0.0010	0.270	<0.000010	20.2	0.0110	<0.00020
MWTF-CELL-3	7/7/2021 9:15	ABJ036	M	C148208	8.41	0.00701	6.54	<0.000020	294	0.169	160	<0.000010	<0.0050	<0.0050	0.00222	0.0103	0.0084	<0.00010	0.0594	0.00669	0.00359	0.051	<0.00010	<0.0010	0.351	0.000019	12.6	0.0109	<0.00020
MWTF-CELL-3	7/14/2021 9:00	ACG115	M	C152141	7.57	0.00404	6.34	<0.000020	258	0.158	165	<0.000010	<0.0050	<0.0050	0.00193	0.0107	<0.0050	<0.00010	0.0245	0.00732	0.00322	0.042	<0.00010	<0.0010	0.369	<0.000010	12.2	0.0068	0.00023
MWTF-CELL-3	7/14/2021 9:30	ABT743	M	C150153	8.63	0.00654	6.32	<0.000020	327	0.146	166	<0.000010	<0.0050	<0.0050	0.00221	0.0110	0.0083	0.00012	0.0412	0.00710	0.00310	0.043	<0.00010	<0.0010	0.344	<0.000010	10.1	0.0093	<0.00020
MWTF-CELL-3	7/28/2021 9:15	ACU802	M	C154587	5.36	0.0110	3.39	<0.000020	237	0.448	257	0.000020	<0.0050	<0.0050	0.00359	<0.0050	<0.0050	0.00017	0.0217	0.00287	0.00126	0.056	<0.00010	<0.0010	0.300	<0.000010	33.4	0.0021	0.00024
MWTF-CELL-3	8/4/2021 9:15	ADE504	M	C156226	4.48	0.00736	3.89	<0.000020	196	0.305	141	0.000016	<0.0050	<0.0050	0.00290	<0.0050	<0.0050	<0.00010	0.0258	0.00245	0.00166	0.046	<0.00010	<0.0010	0.248	<0.000010	32.8	0.0023	0.00020
MWTF-CELL-3	8/11/2021 9:20	ADP909	M	C158213	5.89	0.00621	3.73	<0.000020	171	0.329	121	0.000026	<0.0050	<0.0050	0.00171	<0.0050	<0.0050	<0.00010	0.0414	0.00218	0.00112	0.041	<0.00010	<0.0010	0.238	<0.000010	41.4	0.0028	0.00026
MWTF-CELL-3	8/18/2021 9:10	ADZ880	M	C160258	6.99	0.00500	3.39	<0.000020	182	0.253	127	0.000015	<0.0050	<0.0050	0.00206	<0.0050	<0.0050	<0.00010	0.167	0.00412	0.00141	0.038	<0.00010	<0.0010	0.239	<0.000010	18.8	0.0055	<0.00020
MWTF-CELL-3	8/25/2021 9:15	AEN304	M	C162336	4.99	0.00365	2.78	<0.000020	152	0.559	185	0.000022	<0.0050	<0.0050	0.00106	<0.0050	<0.0050	<0.00010	0.0652	0.00348	0.00066	0.042	<0.00010	<0.0010	0.230	0.000023	102	0.0027	0.00060
MWTF-CELL-3	9/1/2021 9:15	AFA894	M	C164810	5.69	0.00470	2.99	<0.000020	187	0.551	138	0.000034	<0.0050	<0.0050	0.00100	<0.0050	<0.0050	<0.00010	0.0244	0.00253	0.00036	0.046	<0.00010	<0.0010	0.233	0.000010	96.6	0.0019	0.00045
MWTF-CELL-3	9/8/2021 9:10	AFL368	M	C166567	6.20	0.00302	3.78	<0.000020	208	0.344	156	0.000020	<0.0050	<0.0050	0.00156	<0.0050	<0.0050	<0.00010	0.0421	0.00241	0.00068	0.029	<0.00010	<0.0010	0.239	<0.000010	37.9	0.0023	<0.00020
MWTF-CELL-3	9/15/2021 9:00	AGA404	M	C168915	3.96	0.00281	3.24	<0.000020	163	0.195	108	0.000011	<0.0050	<0.0050	0.00177	<0.0050	<0.0050	<0.00010	0.0471	0.00238	0.00100	0.027	<0.00010	<0.0010	0.168	<0.000010	20.1	0.0022	<0.00020
MWTF-CELL-3	9/22/2021 9:15	AGO151	M	C171030	2.13	0.00129	3.19	<0.000020	87.3	0.169	56.3	<0.000010	<0.0050	<0.0050	0.00140	<0.0050	0.0092	<0.00010	0.0281	0.00072	0.00082	0.039	<0.00010	<0.0010	0.104	<0.000010	24.3	<0.0010	0.00027
MWTF-CELL-3	9/29/2021 9:15	AHB518	M	C173306	2.42	0.00141	3.03	<0.000020	96.9	0.141	53.5	<0.000010	<0.0050	0.0164	0.00140	<0.0050	0.0067	0.00014	0.0280	0.00068	0.00081	0.03	<0.00010	<0.0010	0.125	0.000023	17.4	0.0022	0.00027
MWTF-CELL-3	10/6/2021 8:25	AHO703	M	C175648	3.86	0.00089	4.45	<0.000020	162	0.140	56.0	<0.000010	<0.0050	<0.0050	0.00110	<0.0050	<0.0050	0.00017	0.0437	0.00223	0.00123	0.026	<0.00010	<0.0010	0.135	<0.000010	14.8	0.0029	0.00020
MWTF-CELL-3	10/13/2021 9:00	AIB251	M	C177602	3.43	0.00095	3.55	<0.00010	109	0.120	40	<0.000050	<0.025	<0.025	0.00072	<0.025	<0.025	<0.00050	0.0145	0.00169	0.00068	0.019	<0.00010	<0.0010	0.090	<0.000010	12.9	0.0038	<0.00020
MWTF-CELL-3	10/20/2021 9:15	AIR352	M	C180292	2.92	0.00082	4.43	<0.000020	91.8	0.107	42.0	<0.000010	<0.0050	<0.0050	0.00065	<0.0050	<0.0050	<0.00010	0.0133	0.00154	0.00070	0.021	<0.00010	<0.0010	0.128	<0.000010	11.3	0.0036	<0.00020
MWTF-CELL-3	10/27/2021 9:15	AJF093	M	C182468	3.18	0.00088	5.92	<0.000020	91.7	0.125	45.6	<0.000010	<0.0050	<0.0050	0.00139	<0.0050	<0.0050	<0.00010	0.0212	0.00222	0.00165	0.032	<0.00010	<0.0010	0.113	<0.000010	15.2	0.0047	<0.00020
MWTF-CELL-3	11/3/2021 8:55	AJU898	M	C184917	3.76	0.00151	3.78	<0.000020	114	0.132	49.3	<0.000010	<0.0050	<0.0050	0.00150	<0.0050	<0.0050	0.00013	0.0358	0.00195	0.00082	#####	<0.00010	<0.0010	0.147	<0.000010	18.7	0.0036	<0.00020
MWTF-CELL-3	11/10/2021 9:00	AKL846	M	C187287	4.01	0.00127	3.61	<0.000020	103	0.117	49.5	<0.000010	<0.0050	<0.0050	0.00161	<0.0050	<0.0050	<0.00010	0.0196	0.00261	0.00118	0.024	<0.00010	<0.0010	0.127	<0.000010	14.3	0.0033	<0.00020
MWTF-CELL-3	11/17/2021 8:55	AKV483	M	C188716	3.2	0.0011	4.2	<0.00010	100	0.12	49	<0.00020	<0.0010	0.0066	0.0021	0.0030	<0.0030		0.0100	0.00300	0.00168	0.033	<0.00010	<0.0010	0.121	<0.000010	17.0	0.0032	0.00026
MWTF-CELL-3	11/24/2021 8:55	ALZ945	M	C194563	3.00	0.00091	3.67	<0.000020	100	0.126	32.2	0.000010	<0.0050	<0.0050	0.00159	<0.0050	<0.0050	0.00012	0.0151	0.00224	0.00130	0.027	<0.00010	<0.0010	0.161	<0.000010	18.6	0.0026	<0.00020
MWTF-CELL-3	12/1/2021 9:20	ALV047	M	C193508	2.84	0.00123	3.13	<0.000020	80.1	0.144	34.8	0.000010	<0.0050	<0.0050	0.00169	<0.0050	<0.0050	<0.00010	0.0123	0.00155	0.00110	0.025	<0.00010	<0.0010	0.146	0.000021	17.8	0.0016	0.00037
MWTF-CELL-3	12/8/2021 9:10	ALF841	M	C190633	3.42	0.00197	4.32	<0.000020	105	0.168	55.4	0.000010	<0.0050	<0.0050	0.00181	<0.0050	<0.0050	0.00010	0.0315	0.00160	0.00086	0.025	<0.00010	<0.0010	0.155	<0.000010	23.5	0.0018	0.00045
MWTF-CELL-3	12/15/2021 9:10	ALX791	M	C194026	3.82	0.00219	3.11	<0.000020	93.2	0.186	47.0	<0.000010	<0.0050	<0.0050	0.00211	<0.0050	<0.0050	0.00020	0.0428	0.00174	0.00109	0.026	<0.00010	<0.0010	0.151	<0.000010	25.1	0.0031	0.00033
MWTF-CELL-3	12/22/2021 8:55	AMM563	M	C196867	4.07	0.00278	6.24	<0.000020	83.1	0.126	37.7	<0.000010	<0.0050	<0.0050	0.00267	<0.0050	<0.0050	<0.00010	0.0231	0.00169	0.00098	0.011	<0.00010	<0.0010	0.104	<0.000010	18.3	0.0057	<0.00020
MWTF-CELL-3	12/29/2021 8:30	AMO192	M	C197186	3.57	0.00185	4.85	<0.000020	66.1	0.120	26.2	<0.000010	<0.0050	<0.0050	0.00225	<0.0050	<0.0050	<0.00010	0.0249	0.00106	0.00076	0.013	<0.00010	<0.0010	0.081	<0.000010	16.7	0.0032	<0.00020
MWTF-CELL-1-PIPE	1/6/2021 7:05	ZD0209	M	C100919																									
MWTF-CELL-1-PIPE	1/13/2021 9:10	ZD7923	M	C102466																									
MWTF-CELL-1-PIPE	1/16/2021 9:05	ZE4105	M	C103710																									
MWTF-CELL-1-PIPE	2/10/2021 7:35	ZH5703	M	C108783																									
MWTF-CELL-1-PIPE	2/17/2021 8:40	ZI2105	M	C110147																									
MWTF-CELL-1-PIPE	2/25/2021 9:05	ZJ5661	M	C112156																									
MWTF-CELL-1-PIPE	3/3/2021 9:05	ZK6881	M	C114008																									
MWTF-CELL-1-PIPE	3/10/2021 9:10	ZL6786	M	C115704																									
MWTF-CELL-1-PIPE	3/17/2021 9:10	ZM5403	M	C117370																									
MWTF-CELL-1-PIPE	3/24/2021 9:05	ZN4132	M	C119033																									
MWTF-CELL-1-PIPE	3/31/2021 7:05	ZO2646	M	C120786																									
MWTF-CELL-1-PIPE	4/7/2021 9:10	ZO9400	M	C122214																									

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K mg/L	T-Se mg/L	T-Si mg/L	T-Ag mg/L	T-Na mg/L	T-Sr mg/L	T-S mg/L	T-Tl mg/L	T-Sn mg/L	T-Ti mg/L	T-U mg/L	T-V mg/L	T-Zn mg/L	T-Zr mg/L	D-Al mg/L	D-Sb mg/L	D-As mg/L	D-Ba mg/L	D-Be mg/L	D-Bi mg/L	D-B mg/L	D-Cd mg/L	D-Ca mg/L	D-Cr mg/L	D-Co mg/L
MWTF-CELL-1-PIPE	4/14/2021 9:10	ZP7265	M	C123955																									
MWTF-CELL-1-PIPE	4/21/2021 7:05	ZQ7690	M	C125899																									
MWTF-CELL-1-PIPE	4/28/2021 9:20	ZR8168	M	C127754																									
MWTF-CELL-1-PIPE	5/5/2021 9:10	ZS8922	M	C129714																									
MWTF-CELL-1-PIPE	5/12/2021 9:10	ZU0686	M	C131710																									
MWTF-CELL-1-PIPE	5/19/2021 8:50	ZV2960	M	C133889																									
MWTF-CELL-1-PIPE	5/26/2021 8:55	ZW0044	M	C135196																									
MWTF-CELL-1-PIPE	6/1/2021 8:15	ZX2964	M	C137634																									
MWTF-CELL-1-PIPE	6/9/2021 9:10	ZY5026	M	C139832																									
MWTF-CELL-1-PIPE	6/16/2021 9:05	ZZ8823	M	C142309																									
MWTF-CELL-1-PIPE	6/23/2021 9:15	AAK292	M	C144096																									
MWTF-CELL-1-PIPE	6/30/2021 9:05	AAY998	M	C146526																									
MWTF-CELL-1-PIPE	7/7/2021 9:05	ABJ037	M	C148208																									
MWTF-CELL-1-PIPE	7/14/2021 9:15	ABT744	M	C150153																									
MWTF-CELL-1-PIPE	7/14/2021 9:30	ACG116	M	C152141																									
MWTF-CELL-1-PIPE	7/28/2021 9:05	ACU803	M	C154587																									
MWTF-CELL-1-PIPE	8/4/2021 9:05	ADE505	M	C156226																									
MWTF-CELL-1-PIPE	8/11/2021 9:20	ADP910	M	C158213																									
MWTF-CELL-1-PIPE	8/18/2021 9:05	ADZ881	M	C160258																									
MWTF-CELL-1-PIPE	8/25/2021 9:05	AEN305	M	C162336																									
MWTF-CELL-1-PIPE	9/1/2021 9:05	AFA895	M	C164810																									
MWTF-CELL-1-PIPE	9/8/2021 9:10	AFL369	M	C166567																									
MWTF-CELL-1-PIPE	9/15/2021 9:15	AGA405	M	C168915																									
MWTF-CELL-1-PIPE	9/22/2021 9:05	AGO152	M	C171030																									
MWTF-CELL-1-PIPE	9/29/2021 9:10	AHB519	M	C173306																									
MWTF-CELL-1-PIPE	10/13/2021 9:00	AIB252	M	C177602																									
MWTF-CELL-1-PIPE	10/20/2021 9:10	AIR353	M	C180292																									
MWTF-CELL-1-PIPE	10/27/2021 9:10	AJF094	M	C182468																									
MWTF-CELL-1-PIPE	11/3/2021 8:45	AJU899	M	C184917																									
MWTF-CELL-1-PIPE	11/10/2021 9:00	AKL847	M	C187287																									
MWTF-CELL-1-PIPE	11/17/2021 8:45	AKV484	M	C188716																									
MWTF-CELL-1-PIPE	11/24/2021 8:45	ALZ947	M	C194563																									
MWTF-CELL-1-PIPE	12/1/2021 9:30	ALV048	M	C193508																									
MWTF-CELL-1-PIPE	12/8/2021 10:00	ALF843	M	C190633																									
MWTF-CELL-1-PIPE	12/15/2021 9:05	ALX790	M	C194026																									
MWTF-CELL-1-PIPE	12/22/2021 8:45	AMM561	M	C196867																									
PR-IDZ	1/10/2021 15:45	ZD6082	M	C102115																									
PR-IDZ	1/14/2021 9:10	ZD9467	M	C102853																									
PR-IDZ	1/16/2021 16:20	ZE3034	M	C103544																									
PR-IDZ	1/22/2021 1:20	ZE9297	M	C104704																									
PR-IDZ	1/28/2021 13:55	ZF8631	M	C106327																									
PR-IDZ	2/6/2021 12:00	ZH3140	M	C108285																									
PR-IDZ	2/14/2021 10:39	ZI0122	M	C109675																									
PR-IDZ	2/18/2021 14:40	ZI6457	M	C110759																									
PR-IDZ	2/26/2021 13:30	ZJ8526	M	C112618																									
PR-IDZ	3/6/2021 11:30	ZL3538	M	C115040	0.438	0.00029	2.29	<0.00002	1.37	0.11	4.8	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	0.0063	<0.0005	0.00016	0.032	<0.0001	<0.001	<0.05	0.000011	27.6	<0.001	<0.0002
PR-IDZ	3/13/2021 14:45	ZM2424	M	C116756																									
PR-IDZ	3/20/2021 16:45	ZN1537	M	C118497																									
PR-IDZ	3/25/2021 16:10	ZN6327	M	C119610																									
PR-IDZ	4/3/2021 14:25	ZO6453	M	C121575	0.500	0.00029	2.33	<0.00002	1.50	0.113	5.6	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	0.0055	<0.0005	0.00017	0.031	<0.0001	<0.001	<0.05	<0.00001	28.0	<0.001	<0.0002
PR-IDZ	4/5/2021 14:40	ZO7520	M	C121801	0.486	0.00027	2.56	<0.00002	1.35	0.111	5.2	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	0.0056	<0.0005	0.00018	0.031	<0.0001	<0.001	<0.05	<0.00001	27.4	<0.001	<0.0002
PR-IDZ	4/6/2021 15:30	ZO9479	M	C122250	0.478	0.00027	2.26	<0.00002	1.38	0.115	5.5	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	0.0055	<0.0005	0.00015	0.031	<0.0001	<0.001	<0.05	<0.00001	27.4	<0.001	<0.0002
PR-IDZ	4/7/2021 15:45	ZP0885	M	C122580	0.546	0.00028	2.5	<0.00002	1.44	0.119	6.1	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	0.0061	<0.0005	0.00017	0.032	<0.0001	<0.001	<0.05	<0.00001	28.8	<0.001	<0.0002
PR-IDZ	4/16/2021 12:10	ZQ1484	M	C124799																									
PR-IDZ	4/22/2021 11:15	ZR1316	M	C126529																									
PR-IDZ	5/3/2021 11:15	ZS6024	M	C129096																									
PR-IDZ	5/8/2021 15:40	ZT6589	M	C130995																									
PR-IDZ	5/14/2021 11:05	ZU4956	M	C132327																									
PR-IDZ	5/21/2021 11:30	ZV5662	M	C134400																									
PR-IDZ	5/27/2021 12:20	ZW4851	M	C136103																									
PR-IDZ	6/3/2021 12:10	ZX7153	M	C138404																									
PR-IDZ	6/9/2021 14:45	ZY6857	M	C140198																									
PR-IDZ	6/17/2021 13:50	AAC470	M	C142866																									
PR-IDZ	6/24/2021 15:50	AAQ181	M	C144970																									
PR-IDZ	6/30/2021 11:55	AAZ004	M	C146528	0.617	0.00034	3.06	<0.00002	1.24	0.148	4.0	<0.00001	<0.005	0.0063	0.00046	<0.005	0.01	0.00014	0.101	<0.0005	0.0002	0.04	<0.0001	<0.001	<0.05	0.000029	28.7	<0.001	<0.0002
PR-IDZ	7/7/2021 12:30	ABK533	M	C148516	0.502	0.00034	2.16	<0.00002	1.41	0.134	6.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	0.0745	<0.0005	0.00025	0.038	<0.0001	<0.001	<0.05	<0.00001	30.0	<0.001	<0.0002
PR-IDZ	7/8/2021 12:30	ABM763	M	C148925																									
PR-IDZ	7/14/2021 15:05	ABX616	M	C150851	0.456	0.00029	2.06	<0.00002	1.20	0.117	5.3	0.000018	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	0.0332	<0.0005	0.00023	0.036	<0.0001	<0.001	<0.05	<0.00001	29.4	<0.001	<0.0002
PR-IDZ	7/15/2021 16:55	ABY393	M	C150960																									

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
PR-IDZ	7/21/2021 16:40	ACH924	M	C152478	0.512	0.00033	2.15	<0.00002	1.50	0.119	6.0	<0.00001	<0.005	<0.005	0.00054	<0.005	0.006	<0.0001	0.142	<0.0005	0.00023	0.036	<0.0001	<0.001	<0.05	0.000018	28.9	<0.001	<0.0002
PR-IDZ	7/27/2021 12:00	ACT045	M	C154246	0.464	0.00033	1.94	<0.00002	1.61	0.108	7.9	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	<0.0001	0.0262	<0.0005	0.00018	0.032	<0.0001	<0.001	<0.05	0.000013	28.1	<0.001	<0.0002
PR-IDZ	7/31/2021 13:40	ADA376	M	C155508																									
PR-IDZ	8/11/2021 14:00	ADR992	M	C158615	0.495	0.00036	1.75	<0.00002	1.65	0.11	<3.0	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	<0.0001	0.0051	<0.0005	0.00016	0.036	<0.0001	<0.001	<0.05	<0.00001	31.7	<0.001	<0.0002
PR-IDZ	8/18/2021 17:00	AED521	M	C160793	0.519	0.00035	1.85	<0.00002	1.59	0.116	5.6	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	0.0055	<0.0005	0.00025	0.038	<0.0001	<0.001	<0.05	<0.00001	29.1	<0.001	<0.0002
PR-IDZ	8/25/2021 16:00	AEP247	M	C162703	0.751	0.00035	2.54	<0.00002	1.76	0.141	<3.0	0.00002	<0.005	0.0087	0.00051	<0.005	<0.005	0.0002	0.015	<0.0005	0.00024	0.044	<0.0001	<0.001	<0.05	<0.00001	29.3	<0.001	<0.0002
PR-IDZ	9/1/2021 14:40	AFC998	M	C165103	0.419	0.0004	1.92	<0.00002	1.74	0.119	<3.0	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	0.005	<0.0005	0.00015	0.034	<0.0001	<0.001	<0.05	<0.00001	29.5	<0.001	<0.0002
PR-IDZ	9/8/2021 12:20	AFO062	M	C167059	0.477	0.00031	1.95	<0.00002	1.45	0.116	<3.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	0.0042	<0.0005	0.00015	0.035	<0.0001	<0.001	<0.05	<0.00001	28.1	<0.001	<0.0002
PR-IDZ	9/15/2021 11:45	AGD170	M	C169361	0.456	0.00031	1.77	<0.00002	1.42	0.113	4.7	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	0.005	<0.0005	0.00022	0.034	<0.0001	<0.001	<0.05	0.000011	27.8	<0.001	<0.0002
PR-IDZ	9/19/2021 14:55	AGJ669	M	C170331	0.467	0.00029	1.99	<0.00002	1.40	0.116	7.9	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	0.0052	<0.0005	0.00014	0.035	<0.0001	<0.001	<0.05	<0.00001	28.0	<0.001	<0.0002
PR-IDZ	9/22/2021 12:15	AGR069	M	C171568	0.484	0.00033	1.86	<0.00002	1.47	0.116	<3.0	<0.00001	<0.005	<0.005	0.00047	<0.005	0.0071	<0.0001	0.0051	<0.0005	0.00018	0.034	<0.0001	<0.001	<0.05	<0.00001	27.9	<0.001	<0.0002
PR-IDZ	9/29/2021 13:50	AHF735	M	C174181	0.525	0.0004	3.25	<0.00002	4.47	0.122	6.6	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	<0.0001	0.007	<0.0005	0.00019	0.036	<0.0001	<0.001	<0.05	0.00001	29.8	0.0023	<0.0002
PR-IDZ	10/6/2021 12:50	AHR788	M	C176098	0.756	0.00038	2.2	<0.00002	1.71	0.111	<3.0	<0.00001	<0.005	<0.005	0.00038	<0.005	<0.005	<0.0001	0.0047	<0.0005	0.00014	0.033	<0.0001	<0.001	<0.05	0.000012	27.4	0.0013	<0.0002
PR-IDZ	10/13/2021 12:25	AIE378	M	C178189	0.397	0.00027	1.61	<0.00002	1.21	0.0896	<3.0	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	0.0042	<0.0005	0.00013	0.032	<0.0001	<0.001	<0.05	<0.00001	27.8	<0.001	<0.0002
PR-IDZ	10/20/2021 14:00	AIT537	M	C180689	0.459	0.00026	2.13	<0.00002	1.39	0.105	4.2	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	0.0054	<0.0005	0.00015	0.032	<0.0001	<0.001	<0.05	<0.00001	24.9	<0.001	<0.0002
PR-IDZ	10/27/2021 14:05	AJH728	M	C182990																									
PR-IDZ	11/6/2021 12:25	AKD995	M	C186250	0.423	0.00033	1.77	<0.00002	1.42	0.105	<3.0	<0.00001	<0.005	<0.005	0.00052	<0.005	<0.005	<0.0001	0.005	<0.0005	0.00017	0.034	<0.0001	<0.001	<0.05	<0.00001	26.6	<0.001	<0.0002
PR-IDZ	11/10/2021 16:00	AKN276	M	C187468	0.406	0.0003	1.75	<0.00002	1.33	0.0996	<3.0	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	0.0061	<0.0005	0.00013	0.03	<0.0001	<0.001	<0.05	<0.00001	25.3	<0.001	<0.0002
PR-IDZ	11/17/2021 12:50	AKY312	M	C189131																									
PR-IDZ	11/25/2021	FJ2101334-004	M	FJ2101334	0.475	0.000349	2.23	<0.000010	1.25	0.107	4.81	<0.000010	<0.00010	0.00123	0.000453	0.00079	<0.0030	<0.00020	0.0068	<0.00010	0.00017	0.033	<0.000100	0.00005	<0.010	0.0000078	30.0	<0.00050	<0.00010
PR-IDZ	12/2/2021 13:30	FJ2101375-004	M	FJ2101375	0.468	0.000293	2.20	<0.000010	1.35	0.108	5.40	<0.000010	<0.00010	0.00108	0.000484	0.00051	<0.0030	<0.00020	0.0067	<0.00010	0.00019	#####	<0.000100	0.00005	<0.010	0.0000096	26.4	<0.00050	<0.00010
PR-IDZ	12/7/2021 12:40	FJ2101420-003	M	FJ2101420	0.474	0.000301	2.32	<0.000010	1.20	0.107	5.46	<0.000010	<0.00010	0.00166	0.000482	0.00078	<0.0030	<0.00020	0.0048	<0.00010	0.00017	0.033	<0.000100	0.00005	<0.010	0.0000093	26.5	<0.00050	<0.00010
PR-IDZ	12/15/2021 15:30	FJ2101472-004	M	FJ2101472	0.419	0.000323	2.34	<0.000010	1.22	0.108	4.81	<0.000010	<0.00010	<0.00030	0.000462	<0.00050	<0.0030	<0.00020	0.0051	<0.00010	0.00018	0.034	<0.000100	0.00005	<0.010	0.0000104	28.3	<0.00050	<0.00010
PR-IDZ	12/23/2021 14:15	FJ2101512-003	M	FJ2101512	0.462	0.000348	2.59	<0.000010	1.18	0.110	5.06	<0.000010	<0.00010	<0.00330	0.000482	0.00102	0.0049	<0.00020	0.0057	<0.00010	0.00019	0.032	<0.000100	0.00005	<0.010	0.0000084	28.5	<0.00050	<0.00010
PR-IDZ	12/30/2021 14:45	FJ2200029-002	M	FJ2200029	0.465	0.000268	2.41	<0.000010	1.24	0.115	5.37	<0.000010	<0.00010	0.00089	0.000438	<0.00050	0.0036	<0.00020	0.0055	<0.00010	0.00018	0.033	<0.000100	0.00005	<0.010	0.0000115	27.6	<0.00050	<0.00010
PR-Isolation-Zone	1/12/2021 9:00	ZD9466	M	C102853																									
PR-Isolation-Zone	1/16/2021 16:15	ZE3033	M	C103544																									
PR-Isolation-Zone	1/22/2021 13:30	ZE9300	M	C104704																									
PR-Isolation-Zone	1/28/2021 13:40	ZF8630	M	C106327																									
PR-Isolation-Zone	2/6/2021 11:50	ZH3139	M	C108285																									
PR-Isolation-Zone	2/14/2021 10:45	ZI0123	M	C109675																									
PR-Isolation-Zone	2/18/2021 14:30	ZI6456	M	C110759																									
PR-Isolation-Zone	2/26/2021 12:50	ZJ8525	M	C112618																									
PR-Isolation-Zone	3/6/2021 12:15	ZL3539	M	C115040																									
PR-Isolation-Zone	3/13/2021 14:30	ZM2423	M	C116756																									
PR-Isolation-Zone	3/20/2021 16:20	ZN1536	M	C118497																									
PR-Isolation-Zone	3/25/2021 17:00	ZN6326	M	C119610																									
PR-Isolation-Zone	4/4/2021 12:10	ZO6465	M	C121580	0.829	0.0004	3.4	<0.00002	19.5	0.142	17.6	<0.00001	<0.005	<0.005	0.00081	<0.005	<0.005	<0.0001	0.0036	<0.0005	0.00027	0.071	<0.0001	<0.001	<0.05	<0.00001	40.9	<0.001	<0.0002
PR-Isolation-Zone	4/6/2021 15:05	ZO9473	M	C122250	0.594	0.00049	2.53	<0.00002	4.06	0.119	7.6	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	0.00012	0.0032	<0.0005	0.00015	0.077	<0.0001	<0.001	<0.05	<0.00001	32.7	<0.001	<0.0002
PR-Isolation-Zone	4/7/2021 15:25	ZP0884	M	C122580	0.572	0.00047	2.54	<0.00002	2.34	0.117	7.0	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.078	<0.0001	<0.001	<0.05	<0.00001	33.7	<0.001	<0.0002
PR-Isolation-Zone	4/16/2021 11:50	ZQ1483	M	C124799																									
PR-Isolation-Zone	4/22/2021 11:00	ZR1317	M	C126529																									
PR-Isolation-Zone	5/3/2021 11:00	ZS6023	M	C129096																									
PR-Isolation-Zone	5/8/2021 15:20	ZT6588	M	C130995																									
PR-Isolation-Zone	5/14/2021 10:45	ZU4955	M	C132327																									
PR-Isolation-Zone	5/21/2021 10:30	ZV5661	M	C134400																									
PR-Isolation-Zone	5/27/2021 12:00	ZW4843	M	C136103																									
PR-Isolation-Zone	6/3/2021 11:00	ZX7152	M	C138404																									
PR-Isolation-Zone	6/9/2021 14:30	ZY6856	M	C140198																									
PR-Isolation-Zone	6/17/2021 13:30	AAC469	M	C142866																									
PR-Isolation-Zone	6/24/2021 15:35	AAQ180	M	C144970																									
PR-Isolation-Zone	6/30/2021 11:45	AAZ009	M	C146528																									
PR-Isolation-Zone	7/8/2021 13:00	ABM764	M	C148925																									
PR-Isolation-Zone	7/15/2021 16:30	ABY392	M	C150960																									
PR-Isolation-Zone	7/21/2021 16:15	ACH934	M	C152481																									
PR-Isolation-Zone	7/31/2021 13:20	ADA375	M	C155508																									
PR-Isolation-Zone	8/11/2021 13:30	ADR993	M	C158615																									
PR-Isolation-Zone	8/18/2021 12:20	AED523	M	C160793																									
PR-Isolation-Zone	8/25/2021 17:35	AEP249	M	C162703																									
PR-Isolation-Zone	9/1/2021 16:45	AFD000	M	C165103																									
PR-Isolation-Zone	9/8/2021 11:50	AFO063	M	C167059																									
PR-Isolation-Zone	9/15/2021 11:05	AGD166	M	C169361																									
PR-Isolation-Zone	9/22/2021 11:20	AGR071	M	C171568																									
PR-Isolation-Zone	9/29/2021 13:00	AHI613	M	C174181																									
PR-Isolation-Zone	10/6/2021 13:10	AHR790	M	C176098																									
PR-Isolation-Zone	10/13/2021 12:40	AIE381	M	C178189																									
PR-Isolation-Zone	10/20/2021 13:00	AIT540	M	C180689																									
PR-Isolation-Zone	10/27/2021 15:00	AJH729	M	C182990																									
PR-Isolation-Zone	11/3/2021 12:55	AJX287	M	C185315																									

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
PR-Isolation-Zone	11/10/2021 13:00	AKN279	M	C187468																									
PR-US-R5A	5/11/2021 13:55	ZU0126	M	C131574	3.15	0.00047	16.4	0.000064	2.15	0.106	<6.0	0.000127	<0.01	0.208	0.00077	0.023	0.034	0.00436	0.0042	<0.0005	0.00023	0.079	<0.0001	<0.001	<0.05	0.000012	31.5	<0.001	<0.0002
PR-US-R5A	5/12/2021 13:25	ZU2105	M	C131920	2.01	0.00047	10.1	0.000065	2.20	0.114	4.7	0.000096	<0.005	0.0904	0.00077	0.0132	0.0285	0.00142	0.0065	<0.0005	0.00026	0.091	<0.0001	<0.001	<0.05	<0.00001	32.9	<0.001	<0.0002
PR-US-R5A	5/13/2021 13:25	ZU4965	M	C132331	1.52	0.00039	5.14	0.000049	2.13	0.0986	4.4	0.000057	<0.005	0.0223	0.00055	0.0073	0.0238	0.00018	0.0049	<0.0005	0.00022	0.085	<0.0001	<0.001	<0.05	0.000012	31.0	<0.001	<0.0002
PR-US-R5A	7/27/2021 13:20	ACT047	M	C154246	0.425	0.00033	1.86	<0.00002	1.42	0.101	3.2	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	0.0132	<0.0005	0.00013	0.031	<0.0001	<0.001	<0.05	<0.00001	28.1	<0.001	<0.0002
PR-US-R5A	8/11/2021 14:50	ADR991	M	C158615	0.887	0.00041	2.08	<0.00002	11.7	0.202	25.7	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	0.0081	<0.0005	0.00028	0.099	<0.0001	<0.001	<0.05	0.000042	75.0	<0.001	<0.0002
PR-US-R5A	6/30/2021 13:30	AAZ008	M	C146528	0.521	0.0003	2.71	<0.00002	1.28	0.137	4.4	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	0.0416	<0.0005	0.00013	0.033	<0.0001	<0.001	<0.05	0.000022	26.0	<0.001	<0.0002
PR-US-R5A	7/7/2021 14:00	ABK534	M	C148516	0.515	0.0003	2.11	<0.00002	1.33	0.122	4.8	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	0.046	<0.0005	0.00022	0.035	<0.0001	<0.001	<0.05	0.000011	29.5	<0.001	<0.0002
PR-US-R5A	7/14/2021 11:05	ABX617	M	C150851	0.441	0.00022	1.99	<0.00002	1.12	0.11	5.3	<0.00001	<0.005	<0.005	0.00052	<0.005	<0.005	<0.0001	0.0268	<0.0005	0.00018	0.032	<0.0001	<0.001	<0.05	0.00001	28.0	<0.001	<0.0002
PR-US-R5A	7/21/2021 12:50	ACH923	M	C152478	0.472	0.00025	2.09	<0.00002	1.21	0.114	5.9	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	0.107	<0.0005	0.00021	0.034	<0.0001	<0.001	<0.05	0.000019	28.3	<0.001	<0.0002
PR-US-R5A	8/18/2021 13:10	AED522	M	C160793	0.617	0.00047	1.93	<0.00002	4.58	0.14	12.4	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	0.0072	<0.0005	0.00018	0.047	<0.0001	<0.001	<0.05	0.000014	37.4	<0.001	<0.0002
PR-US-R5A	8/25/2021 13:20	AEP246	M	C162703	0.786	0.00028	2.3	<0.00002	6.50	0.173	10.7	0.000012	<0.005	<0.005	0.00078	<0.005	<0.005	0.0003	0.0112	<0.0005	0.00027	0.054	<0.0001	<0.001	<0.05	0.000017	42.8	<0.001	<0.0002
PR-US-R5A	9/1/2021 13:30	AFC997	M	C165103	0.516	0.00041	1.9	<0.00002	6.08	0.147	13.8	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	0.0058	<0.0005	0.00017	0.047	<0.0001	<0.001	<0.05	0.000016	42.3	<0.001	<0.0002
PR-US-R5A	9/8/2021 13:20	AFO061	M	C167059	0.482	0.00031	1.9	<0.00002	1.63	0.117	3.7	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	0.0056	<0.0005	0.00019	0.036	<0.0001	<0.001	<0.05	<0.00001	28.8	<0.001	<0.0002
PR-US-R5A	9/15/2021 13:50	AGD169	M	C169361	0.841	0.00033	2.32	<0.00002	13.3	0.229	27.8	<0.00001	<0.005	<0.005	0.00107	<0.005	<0.005	<0.0001	0.003	<0.0005	0.00022	0.08	<0.0001	<0.001	<0.05	0.000023	69.2	<0.001	<0.0002
PR-US-R5A	9/19/2021 12:35	AGJ668	M	C170331	0.462	0.0003	1.98	<0.00002	1.39	0.109	3.6	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	<0.0001	0.0058	<0.0005	0.00017	0.033	<0.0001	<0.001	<0.05	<0.00001	27.4	<0.001	<0.0002
PR-US-R5A	9/22/2021 13:25	AGR070	M	C171568	0.517	0.00031	1.93	<0.00002	2.08	0.119	4.1	<0.00001	<0.005	<0.005	0.00051	<0.005	0.0052	<0.0001	0.006	<0.0005	0.00017	0.038	<0.0001	<0.001	<0.05	0.00001	30.5	<0.001	<0.0002
PR-US-R5A	9/29/2021 15:40	AHF736	M	C174181	0.496	0.00038	3.27	<0.00002	3.54	0.111	5.7	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	<0.0001	0.0068	<0.0005	0.00021	0.036	<0.0001	<0.001	<0.05	<0.00001	29.5	<0.001	<0.0002
PR-US-R5A	10/6/2021 14:55	AHR787	M	C176098	0.502	0.00035	2.43	<0.00002	1.44	0.108	<3.0	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	0.0048	<0.0005	0.00017	0.033	<0.0001	<0.001	<0.05	0.00001	27.2	<0.001	<0.0002
PR-US-R5A	10/13/2021 14:00	AIE380	M	C178189	0.407	0.00025	1.66	<0.00002	1.05	0.084	<3.0	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	0.0047	<0.0005	0.00014	0.032	<0.0001	<0.001	<0.05	<0.00001	27.3	<0.001	<0.0002
PR-US-R5A	10/20/2021 15:50	AIT538	M	C180689	0.445	0.00026	2.14	<0.00002	1.17	0.104	4.2	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	0.008	<0.0005	0.00015	0.031	<0.0001	<0.001	<0.05	<0.00001	25.5	<0.001	<0.0002
PR-US-R5A	11/10/2021 15:00	AKN277	M	C187468	0.422	0.00032	1.9	<0.00002	1.16	0.0964	<3.0	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	0.0047	<0.0005	0.00015	0.03	<0.0001	<0.001	<0.05	<0.00001	24.9	<0.001	<0.0002
PR-US-R5A	11/25/2021	FJ2101334-006	M	FJ2101334	0.459	0.000198	2.21	<0.000010	1.16	0.102	4.56	<0.000010	<0.00010	0.00104	0.000448	0.00082	<0.0030	<0.00020	0.0062	<0.00010	0.00019	0.034	<0.000100	0.00005	<0.010	0.0000114	29.6	<0.00050	<0.00010
PR-US-R5A	12/2/2021 16:00	FJ2101375-005	M	FJ2101375	0.840	0.000328	3.17	<0.000010	12.6	0.212	25.9	<0.000010	<0.00010	0.00125	0.000994	0.00070	<0.0030	<0.00020	0.0051	<0.00010	0.00018	0.067	<0.000100	0.00005	<0.010	0.0000235	59.2	<0.00050	<0.00010
PR-US-R5A	12/23/2021 15:00	FJ2101512-004	M	FJ2101512	0.496	0.000325	2.71	<0.000010	1.28	0.109	5.03	<0.000010	<0.00010	0.00369	0.000499	0.00104	0.0043	<0.00020	0.0338	<0.00010	0.00021	0.032	<0.000100	0.00005	<0.010	0.0000116	28.8	<0.00050	<0.00010
R5a_MOB_US	7/27/2021 13:00	ACT046	M	C154246	0.864	0.00025	2.22	<0.00002	2.23	0.0837	<3.0	0.000018	<0.005	0.0117	0.00029	<0.005	<0.005	0.00026	0.0679	<0.0005	0.00023	0.125	<0.0001	<0.001	<0.05	0.000015	34.6	<0.001	<0.0002
RBAC-Sump-BT	5/2/2021 14:25	ZS6049	M	C129102	3.28	0.00253	4.87	<0.00002	235	0.238	83.0	0.000032	<0.005	0.0246	0.00279	<0.005	0.0163	0.00058	0.0111	0.00087	0.00066	0.112	<0.0001	<0.001	0.185	0.000016	47.2	<0.001	0.00059
RBAC-Sump-BT	7/24/2021 13:30	ACO404	M	C153513	3.75	0.00108	8.67	0.000043	138	0.208	21.6	0.000078	0.0067	0.0458	0.00246	0.0072	0.0365	0.00134	0.037	<0.0005	0.00046	0.147	<0.0001	<0.001	0.121	0.000027	53.3	<0.001	0.0003
RBAC-Sump-BT	9/4/2021 14:40	AFH293	M	C165785	3.15	0.001	5.87	<0.00002	117	0.192	12.7	0.000012	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	0.0084	<0.0005	0.00021	0.205	<0.0001	<0.001	0.1	<0.00001	51.0	<0.001	<0.0002
RBAC-Sump-BT	10/12/2021 13:50	AIB247	M	C177600	1.12	0.0004	2.11	<0.00002	57.1	0.13	14.7	<0.00001	<0.005	<0.005	0.00062	<0.005	0.0072	<0.0001	0.0389	<0.0005	0.00035	0.043	<0.0001	<0.001	0.053	0.000019	30.9	<0.001	0.00076
RBDT-Sump	6/29/2021 16:00	AAY931	M	C146501	5.89	0.00078	6.2	<0.00002	353	0.219	109	0.000017	<0.005	0.0106	0.00111	<0.005	0.0341	0.00038	0.0386	0.00292	0.00187	0.042	<0.0001	<0.001	0.755	<0.00001	23.6	<0.001	<0.0002
RSEM-L5E-P2-EOP	6/30/2021 0:40	AAZ005	M	C146528	6.29	0.0074	0.346	<0.00002	193	0.613	218	<0.00001	<0.005	<0.005	0.00595	<0.005	0.0122	<0.0001	0.0513	0.00057	0.00052	0.044	<0.0001	<0.001	0.115	0.000012	72.9	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/1/2021 12:15	ABB247	M	C146903	6.24	0.00798	0.579	<0.00002	242	0.622	253	<0.00001	<0.005	<0.005	0.00642	<0.005	<0.005	<0.0001	0.042	0.00065	0.00061	0.043	<0.0001	<0.001	0.138	0.000011	71.0	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/2/2021 11:10	ABB256	M	C146905	6.02	0.00821	0.702	<0.00002	262	0.623	260	<0.00001	<0.005	<0.005	0.00631	<0.005	<0.005	<0.0001	0.07	0.00069	0.00064	0.047	<0.0001	<0.001	0.198	<0.00001	75.1	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/9/2021 12:30	ABM750	M	C148923	5.74	0.00747	0.571	<0.00002	321	0.467	259	0.000033	<0.005	<0.005	0.00664	<0.005	<0.005	<0.0001	0.0631	0.00074	0.00068	0.045	<0.0001	<0.001	0.167	0.000012	72.5	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/10/2021 14:00	ABP529	M	C149429	5.76	0.00833	0.598	<0.00002	340	0.463	265	0.000031	<0.005	<0.005	0.00658	<0.005	<0.005	0.00024	0.101	0.00075	0.00066	0.045	<0.0001	<0.001	0.174	<0.00001	69.7	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/11/2021 12:00	ABP675	M	C149459	5.89	0.00949	0.747	<0.00002	357	0.481	308	0.000023	<0.005	<0.005	0.007	<0.005	<0.005	0.0001	0.121	0.0009	0.00075	0.046	<0.0001	<0.001	0.188	<0.00001	70.5	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/12/2021 6:30	ABP855	M	C149486	5.70	0.009	0.714	<0.00002	353	0.477	301	0.00003	<0.005	<0.005	0.00706	<0.005	<0.005	<0.0001	0.107	0.00088	0.0007	0.045	<0.0001	<0.001	0.185	<0.00001	70.7	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/13/2021 11:00	ABU092	M	C150243	5.74	0.00824	0.736	<0.00002	348	0.526	355	0.000031	<0.005	<0.005	0.0078	<0.005	0.0054	<0.0001	0.121	0.00086	0.00079	0.045	<0.0001	<0.001	0.172	0.000016	73.7	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/14/2021 12:20	ABX612	M	C150851	5.52	0.00775	0.798	<0.00002	356	0.521	305	0.000033	<0.005	<0.005	0.00845	<0.005	<0.005	<0.0001	0.102	0.00096	0.00084	0.047	<0.0001	<0.001	0.171	0.000018	73.1	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/14/2021 12:30	ABX613	D	C150851	5.62	0.00805	0.882	<0.00002	355	0.518	295	0.000034	<0.005	<0.005	0.00843	<0.005	<0.005	0.0001	0.11	0.00092	0.00078	0.045	<0.0001	<0.001	0.162	0.000025	71.6	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/15/2021 12:25	ABY389	M	C150960	5.71	0.00767	0.864	<0.00002	407	0.532	319	0.00009	<0.005	<0.005	0.00871	<0.005	0.0079	<0.0001	0.126	0.00091	0.00072	0.044	<0.0001	<0.001	0.161	0.000016	70.1	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/16/2021 10:35	ABZ188	M	C151029	5.60	0.00856	0.869	<0.00002	450	0.532	316	0.000028	<0.005	<0.005	0.00869	<0.005	<0.005	<0.0001	0.0981	0.00095	0.00068	0.045	<0.0001	<0.001	0.151	0.000013	69.0	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/17/2021 12:20	ACC244	M	C151542	5.67	0.00904	0.974	<0.00002	411	0.446	412	0.000033	<0.005	<0.005	0.00823	<0.005	0.0052	<0.0001	0.124	0.00096	0.00065	0.044	<0.0001	<0.001	0.166	0.000019	68.6	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/18/2021 15:50	ACC420	M	C151549	5.59	0.00898	0.991	<0.00002	420	0.434	361	0.000026	<0.005	<0.005	0.00814	<0.005	<0.005	<0.0001	0.105	0.00088	0.00072	0.044	<0.0001	<0.001	0.163	0.000015	68.2	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/19/2021 11:55	ACF040	M	C151946	5.57	0.00803	1.01	<0.00002	372	0.528	337	0.000026	<0.005	<0.005	0.00895	<0.005	<0.005	<0.0001	0.129	0.0009	0.00062	0.044	<0.0001	<0.001	0.165	0.000022	67.2	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/20/2021 10:45	ACH819	M	C152456	6.05	0.00835	1.08	<0.00002	422	0.45	377	0.000013	<0.005	<0.005	0.00864	<0.005	<0.005	0.00012	0.0157	0.00073	0.00054	0.039	<0.0001	<0.001	0.233	<0.00001	67.1	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/21/2021 11:20	ACH930	M	C152481	5.45	0.00801	1.03	<0.00002	413	0.438	313	0.00003	<0.005	<0.005	0.00814	<0.005	<0.005	<0.0001	0.015	0.00077	0.00055	0.04	<0.0001	<0.001	0.233	<0.00001	69.9	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/22/2021 12:35	ACL550	M	C152988	5.55	0.0088	1.39	<0.00002	387	0.467	346	0.000034	<0.005	<0.005	0.00803	<0.005	<0.005	0.00018	0.0963	0.0007	0.00062	0.052	<0.0001	<0.001	0.205	<0.00001	84.9	<0.001	<0.0002
RSEM-L5E-P2-EOP	7/23/2021 12:30	ACL703	M	C153012	5.12	0.00865	1.34	<0.00002	362	0.435	258	0.000028	<0.005	<0.005	0.0074	<0.005	<0.005	0.00014	0.0737	0.00069	0.0005	0.051	<0.0001	<0.001	0.208	<0.00001	86.1	<0.001	<0.0002
RSEM-L5E-P2-EOP	8/23/2021 13:00	AEL593	M	C161925	6.10	0.0116	0.851	<0.00002	358	0.551	349	0.000032	<0.005	<0.005	0.0075	<0.005	<0.005	<0.0001	0.0222	0.00086	0.00063	0.026	<0.0001	<0.001	0.189	0.000092	91.5	<0.001	0.0024
RSEM-L5E-P2-EOP	8/24/2021 13:25	AEN132	M	C162291	5.98	0.0107	0.881	<0.00002	326	0.544	318	0.000028	<0.005	<0.005	0.00713	<0.005	<0.005	<0.0001	0.0227	0.00087	0.00057	0.027	<0.0001	<0.001	0.222	0.000086	98.6	<0.001	0.00255
RSEM-L5E-P2-EOP	8/24/2021 13:35	AEN133	D	C162291	6.10	0.011	0.876	<0.00002	333	0.56	333	0.00003	<0.005	<0.005	0.00746	<0.005	<0.005	<0.0001	0.023	0.00085	0.00064	0.028	<0.0001	<0.001	0.221	0.000099	101	<0.001	0.00249
RSEM-L5E-P2-EOP	8/25/2021 11:00	AEP243	M	C162703	6.36	0.00974	0.8	<0.0001	310	0.58	273	<0.00005	<0.025	<0.025	0.00719	<0.025	<0.025	<0.0005	0.0296	0.00085	0.00067	0.027	<0.0001	<0.001	0.142	0.000074	94.1	<0.001	0.00226
RSEM-L5E-P2-EOP	8/26/2021 15:45	AER559	M	C163145	6.59	0.011	0.799	<0.0001	326	0.582	297	<0.00005	<0.025	<0.025	0.007	<0.025	<0.025	<0.0005	0.024	<0.0025	0.00051	0.028	<0.0005	<0.005	<0.25	0.000089	103	<0.005	0.0025
RSEM-L5E-P2-EOP	9/5/2021 10:55	AFI822	M	C166081	6.04	0.00795	0.707	<0.00002	370	0.535	325	0.000024	<0.005	<0.005	0.00654	<0.005	<0.005	0.00015	0.0202	0.00053	0.00035	0.031	<0.0001	<0.001	<0.25	0.000082	114	<0.001	0.0022
RSEM-L5E-P2-EOP	9/6/2021 10:05	AFI721	M	C166063	6.39	0.00813	0.719	<0.0001	387	0.555	360	<0.00005	<0.025	<0.025	0.00687	<0.025	<0.025	<0.0005	0.0137	0.00053	0.00035	0.031	<0.0001	<0.001	<0.05	0.000056	109	<0.001	0.00177
RSEM-L5E-P2-EOP	9/7/2021 15:30	AFL347	M	C166557	6.34	0.00981	0.706	<0.0001	399	0.535	371	<0.00005	<0.025	<0.025	0.00727	<0.025	<0.025	<0.0005	0.0142	0.00053	0.00035	0.03	<0.0001	<0.001	0.207	0.000045	110	<0.001	0.00182
RSEM-L5E-P2-EOP	9/8/2021 15:40	AFO059	M	C167059	6.48	0.0108	0.672	<0.0001	403	0.573	372	<0.00005	<0.025	<0.025	0.00812	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.034	<0.0005	<0.005	0.257	0.000072	113	<0.005	0.0021
RSEM-L5E-P2-EOP	9/9/2021 16:20	AFQ847	M	C167445	6.42	0.0102	0.642	<0.0001	396	0.564	375	<0.00005	<0.025	<0.025	0.00789	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.033	<0.0005	<0.005	<0.25	0.000069	109	<0.005	0.0018
RSEM-L5E-P2-EOP	9/10/2021 12:20	AFQ883	M	C167449	6.33	0.0103	0.585	<0.0001	391	0.544	380	<0.00005	<0.025	<0.025	0.00766	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.029	<0.0005	<0.005	<0.25	<0.00005	102	<0.005	0.0017
RSEM-L5E-P2-EOP	9/11/2021 16:00	AFV355	M	C168029	6.67	0.0123	0.525	<0.0001	371	0.602	361	<0.00005	<0.025	<0.025	0.00759	<0.025	<0.025	<0.0005	0.017	<0.0025	0.00059	0.031	<0.0005	<0.005	<0.25	0.000091	108	<0.005	0.0017
RSEM-L5E-P2-EOP	9/12/2021 10:30	AFV419	M	C168037	6.26	0.0118	0.501	<0.0001	363	0.593	348	<0.00005	<0.025	<0.025	0.00747	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00062	0.03	<0.0005	<0.005	<0.25	<0.00005	106	<0.005	0.0016
RSEM-L5E-P2-EOP	9/13/2021 6:20	AFV246	M	C168020	6.27	0.0123	<0.5	<0.0001	352	0.607	352	<0.00005	<0.025	<0.025	0.00751	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.028	<0.0005	<0.005	0.303	<0.00005	107	<0.005	0.0016
RSEM-L5E-P2-EOP	9/14/2021 12:05	AGB019	M	C169017	6.09	0.01	<0.5	<0.0001	361	0.569	340	<0.00005	<0.025	<0.025	0.0074	<0.025	<0.025	<0.0005	0.0238	0.00061	0.00044	0.026	<0.0001	<0.001	0.182	0.000023	119	<0.001	0.00125
RSEM-L5E-P2-EOP	9/15/2021 14:50	AGD167	M	C169361	6.15	0.0103	<0.5	<0.0001	425	0.566	365	<0.00005	<0.025	<0.025	0.00816	<0.025	<0.025	<0.0005	0.017	<0.0025	0.00078	0.026	<0.0005	<0.005	0.265	<0.00005	114	<0.005	<0.001
RSEM-L5E-P2-EOP	9/16/2021 15:30	AGG332	M	C169805	6.46	0.0115	<0.5	<0.0001	469	0.602	405	<0.00005	<0.025	<0.025	0.00851	<0.025	<0.025	<0.0005	0.0145	0.00063	0.00049	0.025	<0.0001	<0.001	0.241	0.00001	107	<0.001	0.00071
RSEM-L5E-P2-EOP	9/17/2021 12:30	AGG310	M	C169799	6.57	0.0112	<0.5	<0.0001	519	0.595	438	<0.00005	<0.025	<0.025	0.00865	<0.025	<0.025	<0.0005	0.015	<0.0025	0.00057	0.026	<0.0005	<0.005	0.329	<0.00005	108	<0.005	<0.001
RSEM-L5E-P2-EOP	9/18/2021 16:30	AGJ637	M	C170329	6.57	0.00638	0.512	<0.00002	614	0.596	460	0.000022	<0.005	<0.005	0.00853	<0.005	<0.005	<0.0001	0.0113	0.0008	0.00045	0.026	<0.0001	<0.001	0.252	<0.00001	101	<0.001	0.00034

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-P2-EOP	9/19/2021 11:55	AGJ667	M	C170331	6.71	0.0112	0.52	<0.0001	569	0.617	469	<0.00005	<0.025	<0.025	0.00932	<0.025	<0.025	<0.0005	0.0103	0.0008	0.00046	0.025	<0.0001	<0.001	0.257	<0.00001	99.9	<0.001	0.00029
RSEM-L5E-P2-EOP	9/20/2021 14:10	AGM223	M	C170680	6.80	0.00672	0.479	<0.00002	650	0.621	476	0.00002	<0.005	<0.005	0.00918	<0.005	<0.005	<0.0001	0.0101	0.00075	0.00047	0.025	<0.0001	<0.001	0.264	<0.00001	99.8	<0.001	0.00028
RSEM-L5E-P2-EOP	9/22/2021 14:45	AGR067	M	C171568	6.96	0.01	<0.5	<0.0001	616	0.619	483	<0.00005	<0.025	<0.025	0.00946	<0.025	<0.025	<0.0005	0.0088	0.00075	0.00043	0.024	<0.0001	<0.001	0.263	<0.00001	98.0	<0.001	0.00021
RSEM-L5E-P2-EOP	9/23/2021 13:30	AGT567	M	C171954	6.43	0.0102	0.536	<0.0001	606	0.553	447	<0.00005	<0.025	<0.025	0.00938	<0.025	<0.025	<0.0005	0.0081	0.00075	0.00047	0.023	<0.0001	<0.001	0.301	<0.00001	96.6	<0.001	<0.0002
RSEM-L5E-P2-EOP	9/24/2021 11:40	AGV852	M	C172263	6.02	0.00556	0.707	<0.00004	525	0.587	457	0.000025	<0.01	<0.01	0.00926	<0.01	<0.01	<0.0002	0.011	<0.001	0.00043	0.023	<0.0002	<0.002	0.269	<0.00002	104	<0.002	<0.0004
RSEM-L5E-P2-EOP	9/24/2021 11:50	AGV853	D	C172263	5.88	0.0056	0.674	<0.00004	523	0.557	438	0.000023	<0.01	<0.01	0.00897	<0.01	<0.01	<0.0002	0.0111	<0.001	0.00043	0.023	<0.0002	<0.002	0.27	<0.00002	102	<0.002	<0.0004
RSEM-L5E-P2-EOP	9/25/2021 11:35	AGX498	M	C172580	5.35	0.00555	0.604	<0.00002	712	0.461	511	0.000025	<0.005	<0.005	0.00969	<0.005	<0.005	0.00017	0.0071	0.00051	<0.0001	0.017	<0.0001	<0.001	0.328	<0.00001	85.4	<0.001	<0.0002
RSEM-L5E-P2-SP	4/5/2021 16:15	ZO7521	M	C121801	5.24	0.0037	2.36	<0.00002	21.4	0.277	60.4	0.000023	<0.005	0.0118	0.00266	<0.005	0.0052	0.00032	<0.003	<0.0005	0.00032	0.037	<0.0001	<0.001	<0.05	0.000033	66.8	<0.001	0.00033
RSEM-L5E-P2-SP	4/28/2021 15:50	ZS0317	M	C128230	5.56	0.00432	1.18	<0.00002	30.5	0.325	77.3	0.000014	<0.005	<0.005	0.00348	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00032	0.04	<0.0001	<0.001	<0.05	0.000023	69.3	<0.001	<0.0002
RSEM-L5E-P2-SP	5/4/2021 14:30	ZS9944	M	C129944	5.36	0.00541	1.11	<0.00002	48.4	0.341	90.2	0.000016	<0.005	<0.005	0.00372	<0.005	<0.005	<0.0001	0.0031	<0.0005	0.00034	0.041	<0.0001	<0.001	<0.05	0.000014	68.3	<0.001	<0.0002
RSEM-L5E-P2-SP	5/6/2021 12:40	ZT3105	M	C130484	5.49	0.00549	1.04	<0.00002	48.4	0.361	96.2	0.000016	<0.005	<0.005	0.00381	<0.005	<0.005	<0.0001	0.0039	<0.0005	0.00033	0.041	<0.0001	<0.001	<0.05	0.000018	70.7	<0.001	<0.0002
RSEM-L5E-P2-SP	5/13/2021 14:25	ZU4939	M	C132324	5.38	0.00493	0.64	<0.00002	44.7	0.363	91.3	<0.00001	<0.005	<0.005	0.00388	<0.005	<0.005	<0.0001	0.0038	<0.0005	0.00038	0.042	<0.0001	<0.001	0.071	<0.00001	73.3	<0.001	<0.0002
RSEM-L5E-P2-SP	5/20/2021 14:45	ZV5701	M	C134406	5.18	0.00611	0.563	<0.00002	67.2	0.357	103	0.00001	<0.005	<0.005	0.00394	<0.005	<0.005	<0.0001	0.0038	<0.0005	0.00038	0.043	<0.0001	<0.001	0.054	<0.00001	71.3	<0.001	<0.0002
RSEM-L5E-P2-SP	5/29/2021 12:50	ZW9129	M	C136816	5.58	0.00515	0.31	<0.00002	66.6	0.404	115	0.000017	<0.005	<0.005	0.00423	<0.005	<0.005	<0.0001	0.0097	<0.0005	0.00043	0.043	<0.0001	<0.001	0.06	<0.00001	73.4	<0.001	<0.0002
RSEM-L5E-P2-SP	6/5/2021 15:30	ZY0224	M	C138844	5.84	0.00509	0.196	<0.00002	70.5	0.422	121	0.000017	<0.005	<0.005	0.0046	<0.005	<0.005	<0.0001	0.0058	<0.0005	0.00043	0.041	<0.0001	<0.001	0.062	<0.00001	69.6	<0.001	<0.0002
RSEM-L5E-P2-SP	6/10/2021 10:25	ZY8798	M	C140527	5.42	0.0058	0.285	<0.00002	108	0.445	142	0.000018	<0.005	<0.005	0.00486	<0.005	<0.005	<0.0001	0.0061	<0.0005	0.00048	0.048	<0.0001	<0.001	0.072	<0.00001	71.5	<0.001	<0.0002
RSEM-L5E-P2-SP	6/14/2021 9:45	ZZ2008	M	C141059	5.76	0.00596	0.38	<0.00002	151	0.448	168	0.000023	<0.005	<0.005	0.00564	<0.005	<0.005	0.00014	0.0059	0.00051	0.00049	0.051	<0.0001	<0.001	0.091	0.00001	70.8	<0.001	<0.0002
RSEM-L5E-P2-SP	6/20/2021 12:00	AAF491	M	C143330	6.51	0.00936	0.292	<0.00002	175	0.631	158	0.000028	<0.005	<0.005	0.006	<0.005	0.0054	0.0003	0.0068	<0.0005	0.00042	0.04	<0.0001	<0.001	0.113	<0.00001	76.9	<0.001	<0.0002
RSEM-L5E-P2-SP	6/22/2021 10:40	AAL814	M	C144319	5.34	0.00778	0.23	<0.00002	170	0.409	219	<0.00001	<0.005	<0.005	0.0053	<0.005	0.005	0.0001	0.0058	<0.0005	0.00038	0.044	<0.0001	<0.001	0.115	<0.00001	78.2	<0.001	<0.0002
RSEM-L5E-P2-SP	6/23/2021 11:40	AAO116	M	C144722	5.21	0.00899	0.296	<0.00002	173	0.394	219	0.000026	<0.005	<0.005	0.00527	<0.005	<0.005	<0.0001	0.0064	0.00055	0.0005	0.049	<0.0001	<0.001	0.149	<0.00001	86.7	<0.001	<0.0002
RSEM-L5E-P2-SP	6/24/2021 11:10	AAQ174	M	C144970	5.10	0.00847	0.229	<0.00002	165	0.379	170	0.000023	<0.005	<0.005	0.005	<0.005	<0.005	<0.0001	0.0084	<0.0005	0.00041	0.043	<0.0001	<0.001	0.127	<0.00001	65.4	<0.001	<0.0002
RSEM-L5E-P2-SP	6/25/2021 11:20	AAP484	M	C144894	5.26	0.00878	0.268	<0.00002	167	0.401	183	0.000024	<0.005	<0.005	0.00527	<0.005	<0.005	<0.0001	0.0081	<0.0005	0.00044	0.041	<0.0001	<0.001	0.128	<0.00001	65.8	<0.001	<0.0002
RSEM-L5E-P2-SP	6/26/2021 13:30	AAU429	M	C145599	5.38	0.00788	0.233	<0.00002	161	0.411	190	0.00002	<0.005	<0.005	0.00543	<0.005	<0.005	<0.0001	0.0108	0.00058	0.00047	0.048	<0.0001	<0.001	0.149	<0.00001	84.3	<0.001	<0.0002
RSEM-L5E-P2-SP	6/27/2021 10:40	AAU316	M	C145583	5.63	0.00834	0.238	<0.00002	166	0.432	213	0.000023	<0.005	<0.005	0.00565	<0.005	0.0102	<0.0001	0.012	0.00059	0.00049	0.049	<0.0001	<0.001	0.149	<0.00001	84.2	<0.001	<0.0002
RSEM-L5E-P2-SP	6/28/2021 10:45	AAX133	M	C146134	5.60	0.00796	0.238	<0.00002	166	0.426	151	0.000024	<0.005	<0.005	0.00586	<0.005	0.007	<0.0001	0.0089	0.00055	0.00044	0.045	<0.0001	<0.001	0.135	<0.00001	83.3	<0.001	<0.0002
RSEM-L5E-P2-SP	6/29/2021 11:45	AAZ024	M	C146532	6.48	0.00763	0.334	<0.00002	186	0.631	219	<0.00001	<0.005	<0.005	0.00587	<0.005	<0.005	<0.0001	0.0569	<0.0005	0.00048	0.045	<0.0001	<0.001	0.118	<0.00001	73.7	<0.001	<0.0002
RSEM-L5E-P2-SP	7/3/2021 13:55	ABE026	M	C147272	5.88	0.00822	0.657	<0.00002	270	0.518	253	0.00003	<0.005	<0.005	0.00721	<0.005	0.0128	<0.0001	0.0589	0.00079	0.00072	0.045	<0.0001	<0.001	0.183	<0.00001	71.2	<0.001	<0.0002
RSEM-L5E-P2-SP	7/4/2021 10:00	ABD988	M	C147267	6.05	0.00839	0.626	<0.00002	311	0.494	266	<0.00001	<0.005	<0.005	0.00744	<0.005	<0.005	<0.0001	0.0694	0.00071	0.00071	0.05	<0.0001	<0.001	0.202	<0.00001	77.1	<0.001	<0.0002
RSEM-L5E-P2-SP	7/5/2021 11:40	ABG202	M	C147674	5.93	0.0091	0.666	<0.00002	322	0.519	287	<0.00001	<0.005	<0.005	0.00772	<0.005	<0.005	<0.0001	0.0704	0.00083	0.00074	0.051	<0.0001	<0.001	0.212	0.000027	74.4	<0.001	<0.0002
RSEM-L5E-P2-SP	7/6/2021 15:20	ABJ181	M	C148228	5.86	0.00902	0.604	<0.00002	291	0.55	263	0.000026	<0.005	<0.005	0.00705	<0.005	<0.005	<0.0001	0.0665	0.00079	0.00065	0.046	<0.0001	<0.001	0.158	<0.00001	72.9	<0.001	<0.0002
RSEM-L5E-P2-SP	7/7/2021 15:30	ABK535	M	C148516	6.10	0.00915	0.586	<0.00002	306	0.569	275	0.000029	<0.005	<0.005	0.00703	<0.005	<0.005	0.0001	0.0701	0.00077	0.00061	0.046	<0.0001	<0.001	0.167	<0.00001	73.8	<0.001	<0.0002
RSEM-L5E-P2-SP	7/8/2021 17:00	ABM765	M	C148925	6.23	0.0106	0.612	<0.00002	316	0.51	260	0.000031	<0.005	<0.005	0.00693	<0.005	<0.005	<0.0001	0.0671	0.00076	0.00061	0.046	<0.0001	<0.001	0.165	<0.00001	73.2	<0.001	<0.0002
RSEM-L5E-P2-SP	7/24/2021 10:35	ACO402	M	C153513	5.62	0.01	1.37	<0.00002	435	0.554	332	0.000027	<0.005	<0.005	0.00784	<0.005	<0.005	0.00016	0.0245	0.00072	0.00057	0.051	<0.0001	<0.001	0.206	<0.00001	84.2	<0.001	<0.0002
RSEM-L5E-P2-SP	7/25/2021 11:00	ACO185	M	C153467	5.54	0.00725	1.06	<0.00002	411	0.478	370	0.00003	<0.005	<0.005	0.00768	<0.005	<0.005	0.00015	0.0213	0.00075	0.00056	0.054	<0.0001	<0.001	0.207	<0.00001	85.2	<0.001	<0.0002
RSEM-L5E-P2-SP	7/26/2021 11:30	ACN522	M	C153324	5.24	0.00742	1.05	<0.00002	391	0.46	349	0.000024	<0.005	<0.005	0.00721	<0.005	<0.005	0.00017	0.0189	0.00084	0.00077	0.052	<0.0001	<0.001	0.247	0.000018	87.2	<0.001	<0.0002
RSEM-L5E-P2-SP	7/27/2021 15:40	ACT048	M	C154246	6.05	0.00811	1.15	<0.00002	434	0.508	335	<0.00001	<0.005	<0.005	0.00849	<0.005	0.0207	<0.0001	0.0139	0.00071	0.00055	0.048	<0.0001	<0.001	0.217	<0.00001	88.3	<0.001	<0.0002
RSEM-L5E-P2-SP	7/28/2021 16:00	ACV592	M	C154699	6.23	0.0105	1.16	<0.0001	416	0.568	326	<0.00005	<0.025	<0.025	0.00811	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00058	0.053	<0.0005	<0.005	0.268	<0.00005	87.4	<0.005	<0.001
RSEM-L5E-P2-SP	7/30/2021 11:40	ACY656	M	C155288	6.14	0.0112	1.1	<0.0001	408	0.552	332	<0.00005	<0.025	<0.025	0.00807	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00055	0.051	<0.0005	<0.005	0.289	<0.00005	88.5	<0.005	<0.001
RSEM-L5E-P2-SP	8/1/2021 14:00	ADC694	M	C155924	6.23	0.0109	1.06	<0.0001	408	0.513	335	<0.00005	<0.025	<0.025	0.0081	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00054	0.048	<0.0005	<0.005	0.26	<0.00005	83.2	<0.005	<0.001
RSEM-L5E-P2-SP	8/5/2021 15:30	ADK138	M	C157133	6.59	0.0112	1.02	<0.00002	378	0.64	324	0.000032	<0.005	<0.005	0.00873	<0.005	<0.005	<0.0001	0.0131	0.00095	0.00068	0.051	<0.0001	<0.001	0.317	<0.00001	94.0	<0.001	<0.0002
RSEM-L5E-P2-SP	8/6/2021 10:40	ADK125	M	C157131	6.26	0.0109	1.04	<0.00002	363	0.601	315	0.00003	<0.005	<0.005	0.00848	<0.005	<0.005	0.00011	<0.015	<0.0025	<0.0005	0.048	<0.0005	<0.005	<0.25	<0.00005	85.0	<0.005	<0.001
RSEM-L5E-P2-SP	8/7/2021 16:20	ADM460	M	C157545	6.17	0.0103	0.993	<0.00002	399	0.548	330	0.000033	<0.005	<0.005	0.00879	<0.005	<0.005	<0.0001	<0.015	<0.0025	<0.0005	0.043	<0.0005	<0.005	<0.25	<0.00005	86.9	<0.005	<0.001
RSEM-L5E-P2-SP	8/8/2021 10:45	ADN230	M	C157651	6.29	0.00851	0.986	<0.0001	386	0.492	385	<0.00005	<0.025	<0.025	0.00772	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00051	0.041	<0.0005	<0.005	<0.25	<0.00005	87.4	<0.005	<0.001
RSEM-L5E-P2-SP	8/9/2021 10:15	ADM370	M	C157523	6.37	0.0108	0.978	<0.00002	414	0.562	326	0.000032	<0.005	<0.005	0.00903	<0.005	0.0074	<0.0001	0.0062	0.00078	0.00055	0.044	<0.0001	<0.001	0.204	<0.00001	84.2	<0.001	<0.0002
RSEM-L5E-P2-SP	8/10/2021 15:30	ADP902	M	C158211	5.85	0.00906	0.824	<0.0001	369	0.471	356	<0.00005	<0.025	<0.025	0.00769	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.041	<0.0005	<0.005	<0.25	<0.00005	85.9	<0.005	<0.001
RSEM-L5E-P2-SP	8/12/2021 15:30	ADU541	M	C159104	0.62	0.00082	2.2	<0.0001	6.75	0.15	<15	<0.00005	<0.025	<0.025	0.00057	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.102	<0.0005	<0.005	<0.25	<0.00005	48.7	<0.005	<0.001
RSEM-L5E-P2-SP	8/14/2021 15:30	ADW203	M	C159435	6.61	0.0108	0.823	<0.00002	458	0.623	392	0.000021	<0.005	<0.005	0.00854	<0.005	<0.005	0.00014	0.0083	0.00102	0.00058	0.037	<0.0001	<0.001	0.201	<0.00001	87.1	<0.001	<0.0002
RSEM-L5E-P2-SP	8/16/2021 15:20	ADY265	M	C159861	6.78	0.0124	0.908	<0.0001	420	0.627	392	<0.00005	<0.025	<0.025	0.009	<0.025	<0.025	<0.0005	0.007	0.00106	0.00058	0.034	<0.0001	<0.001	0.177	<0.00001	84.2	<0.001	<0.0002
RSEM-L5E-P2-SP	8/18/2021 15:20	AED519	M	C160793	6.36	0.0114	0.744	<0.00002	298	0.526	286	0.000027	<0.005	<0.005	0.0078	<0.005	0.0065	<0.0001	0.0075	0.00095	0.00065	0.03	<0.0001	<0.001	0.216	<0.00001	81.2	<0.001	<0.0002
RSEM-L5E-P2-SP	8/20/2021 12:20	AEF525	M	C161059	6.42	0.0116	0.733	<0.00002	338	0.514	316	0.000028	<0.005	<0.005	0.0078	<0.005	<0.005	<0.0001	0.0083	0.00089	0.00054	0.026	<0.0001	<0.001	0.219	<0.00001	76.9	<0.001	<0.0002
RSEM-L5E-P2-SP	8/21/2021 16:20	AEI351	M	C161420	6.24	0.0117	0.712	<0.00002	353	0.501	337	0.000031	<0.005	<0.005	0.00738	<0.005	<0.005	0.00023	0.0077	0.001	0.00064	0.024	<0.0001	<0.001	0.207	<0.00001	77.3	<0.001	<0.0002
RSEM-L5E-P2-SP	8/22/2021 9:40	AEI413	M	C161433	5.97	0.0116	0.765	<0.00002	382	0.513	342	0.000029	<0.005	<0.005	0.00773	<0.005	<0.005	<0.0001	0.0121	0.00094	0.00049	0.024	<0.0001	<0.001	0.197	<0.00001	79.8	<0.001	0.00074
RSEM-L5E-P2-SP	8/27/2021 12:10	AER549	M	C163144	6.91	0.0112	0.892	<0.0001	330	0.659	312	<0.00005	<0.025	<0.025	0.00718	<0.025	<0.025	<0.0005	0.028	<0.0025	0.00053	0.03	<0.0005	<0.005	<0.25	0.000093	105	<0.005	0.0028
RSEM-L5E-P2-SP	8/28/2021 14:55	AEV125	M	C163811	5.45	0.01	0.747	<0.00002	318	0.512	299	0.000025	<0.005	<0.005	0.00609	<0.005	<0.005	<0.0001	0.0219	0.00058	0.00041	0.028	<0.0001	<0.001	0.186	0.000121	112	<0.001	0.00299
RSEM-L5E-P2-SP	8/29/2021 14:50	AEV013	M	C163786	6.47	0.00928	0.863	<0.0001	329	0.573	304	<0.00005	<0.025	<0.025	0.007	<0.025	<0.025	<0.0005	0.022	<0.0025	0.00054	0.034	<0.0005	<0.005	<0.25	0.000124	113	<0.005	0.0029
RSEM-L5E-P2-SP	8/30/2021 14:20	AEX830	M	C164176	5.35	0.00964	0.743	<0.00002	392	0.493	336	0.000025	<0.005	<0.005	0.00634	<0.005	<0.005	<0.0001	0.0178	0.00059	0.00038	0.031	<0.0001	<0.001	0.212	0.000107	110	<0.001	0.00244
RSEM-L5E-P2-SP	8/31/2021 12:20	AFA834	M	C164798	5.43	0.00961	0.744	<0.00002	400	0.495	337	0.000029	<0.005	<0.005	0.0066	<0.005	<0.005	<0.0001	0.0204	0.00058	0.00039	0.031	<0.0001	<0.001	0.222	0.000098	110	<0.001	0.00221
RSEM-L5E-P2-SP	9/1/2021 11:40	AFC993	M	C165103	5.57	0.0098	0.754	<0.00002	365	0.547	220	0.000024	<0.005	<0.005	0.00638	<0.005	<0.005	0.00012	0.0155	0.00057	0.00039	0.033	<0.0001	<0.001	0.222	0.000075	110	<0.001	0.00225
RSEM-L5E-P2-SP	9/2/2021 16:10	AFF609	M	C165563	5.42	0.00996	0.73	<0.00002	363	0.534	210	0.000023	<0.005	<0.005	0.0063	<0.005	<0.005	<0.0001	0.0202	0.00056	0.00038	0.032	<0.0001	<0.001	0.213	0.000083	110	<0.001	0.00234
RSEM-L5E-P2-SP	9/3/2021 12:10	AFF867	M	C165588	5.73	0.00759	0.733	<0.00002	381	0.485	232	0.000022	<0.005	<0.005	0.00607	<0.005	<0.005	<0.0001	0.017	<0.0025	<0.0005	0.036	<0.0005	<0.005	<0.25	0.000091	111	<0.005	0.0026
RSEM-L5E-P2-SP	9/4/2021 12:05	AFH291	M	C165785	6.07	0.00773	0.887	<0.00002	369	0.622	375	0.000028	<0.005	<0.005	0.00807	<0.005	<0.005	<0.0001	0.0175	<0.001	0.00046	0.036	<0.0002	<0.002	0.198	0.000083	111	<0.002	0.00246
RSEM-L5E-P2-SP	9/21/2021 10:10	AGO666	M	C171134	7.21	0.0105	<0.5	<0.0001	629	0.643	507	<0.00005	<0.025	<0.025	0.00977	<0.025	<0.025	<0.0005	0.0097	0.00081	0.00044	0.025	<0.0001	<0.001	0.265	<0.00001	99.4	<0.001	0.00025
RSEM-L5W-P2-EOP	8/25/2021 11:25	AEP244	M	C162703	6.34	0.0115	0.812	<0.00002	576	0.623	403	0.000028	<0.005	<0.005	0.00912	<0.005	<0.005	<0.0001	0.0059	0.00085	0.00057	0.039	<0.0001	<0.001	0.199	<0.00001	76.8	<0.001	<0.0002
RSEM-L5W-P2-EOP	8/26/2021 15:20	AER558	M	C163145	6.19	0.0101	0.944	<0.00002	595	0.576	398	0.000027	<0.005	<0.005	0.00897	<0.005	<0.005	<0.0001	0.0047	0.00082	0.0006	0.039	<0.0001	<0.001	0.302	<0.00001	76.3	<0.001	<0.0002
RSEM-L5W-P2-EOP	8/27/2021 12:25	AER550	M	C163144	6.36	0.0127	0.85	<0.00002	567	0.619	389	0.00003	<0.005	<0.005	0.00963	<0.005	<0.005	<0.0001	0.0045	0.00083	0.00058	0.038	<0.0001	<0.001	0.309	<0.00001	75.9	<0.001	<0.0002
RSEM-L5W-P2-EOP	8/28/2021 15:10	AEV126	M	C163811	5.64	0.00871	0.806	<0.00002	658	0.485	432	0.000026	<0.005	<0.005	0.00846	<0.005	<0.005	<0.0001	0.0044	0.00075	0.00049	0.034	<0.0001	<0.001	0.33	0.000017	77.7	<0.001	<0.0002
RSEM-L5W-P2-EOP	8/29/2021 15:05	AEV014	M	C163786	6.22	0.0122	0.941	<0.00002	561	0.594	400	0.000037	<0.005	<0.005	0.00914	<0.005	<0.005	<0.0001	0.0052	0.00073	0.00048	0.032	<0.0001	<0.001	0.38	<0.00001	75.1	<0.001	<0.0002
RSEM-L5W-P2-EOP	8/30/2021 14:40	AEX831	M	C164176	5.71	0.0087	0.743	<0.00002	673	0.504	454	0.000025	<0.005	<0.005	0.00882	<0.005	<0.005	0.00013	0.0048	0.00072	0.00049	0.033	<0.0001	<0.001	0.326	<0.00001	76.9	<0.001	<0.0002
RSEM-L5W-P2-EOP	8/31/2021 12:35	AFA835	M	C164798	5.64	0.00877	0.708	<0.00002	662	0.49	437	0.000025	<0.005	<0.005	0.00868	<0.005	<0.005	0.00013	0.0075	0.00073	0.00049	0.033	<0.0001	<0.001	0.323	<0.00001	79.6	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5W-P2-EOP	9/1/2021 11:50	AFC994	M	C165103	5.64	0.00884	0.733	<0.00002	574	0.528	280	0.000024	<0.005	<0.005	0.00805	<0.005	<0.005	0.00011	0.0057	0.00072	0.00048	0.033	<0.0001	<0.001	0.321	<0.00001	80.3	<0.001	<0.0002
RSEM-L5W-P2-EOP	9/2/2021 16:20	AFF610	M	C165563	5.58	0.00891	0.712	<0.00002	578	0.527	271	0.000026	<0.005	<0.005	0.0079	<0.005	<0.005	0.00013	0.0635	0.0007	0.00046	0.032	<0.0001	<0.001	0.335	<0.00001	79.4	<0.001	<0.0002
RSEM-L5W-P2-EOP	9/3/2021 12:25	AFF868	M	C165588	5.94	0.00684	0.673	<0.00002	586	0.5	423	0.000023	<0.005	<0.005	0.00811	<0.005	<0.005	0.00014	<0.015	<0.0025	<0.0005	0.034	<0.0005	<0.005	0.334	<0.00005	78.2	<0.005	<0.001
RSEM-L5W-P2-EOP	9/4/2021 12:25	AFH292	M	C165785	5.95	0.00602	0.8	<0.00004	563	0.557	428	0.000028	<0.01	<0.01	0.00938	<0.01	<0.01	<0.0002	0.0077	<0.001	0.00056	0.035	<0.0002	<0.002	0.292	<0.00002	82.0	<0.002	<0.0004
RSEM-L5W-P2-EOP	9/5/2021 11:15	AFI823	M	C166081	5.96	0.00707	0.656	<0.00002	580	0.503	444	0.000023	<0.005	<0.005	0.00806	<0.005	<0.005	0.00015	0.005	0.00069	0.00044	0.031	<0.0001	<0.001	0.307	<0.00001	82.0	<0.001	0.00021
RSEM-L5W-P2-EOP	9/6/2021 10:20	AFI722	M	C166063	6.60	0.00922	0.683	<0.0001	591	0.555	419	<0.00005	<0.025	<0.025	0.00862	<0.025	<0.025	<0.0005	0.0053	0.0007	0.00049	0.031	<0.0001	<0.001	0.307	0.00001	81.9	<0.001	0.00023
RSEM-L5W-P2-SP	4/28/2021 16:00	ZS0318	M	C128230	3.84	0.019	2.03	<0.00002	234	0.32	212	0.000013	<0.005	<0.005	0.00515	<0.005	<0.005	<0.0001	0.0065	0.00082	0.00083	0.063	<0.0001	<0.001	0.09	0.00002	88.8	<0.001	0.00023
RSEM-L5W-P2-SP	5/20/2021 14:55	ZV5702	M	C134406	4.45	0.0132	2.12	<0.00002	447	0.419	319	<0.00001	<0.005	<0.005	0.0072	<0.005	<0.005	0.00021	0.0129	0.00102	0.00112	0.038	<0.0001	<0.001	0.193	<0.00001	75.5	<0.001	0.00032
RSEM-L5W-P2-SP	5/29/2021 13:00	ZW9130	M	C136816	4.84	0.0112	2.12	<0.00004	411	0.426	313	0.00002	<0.01	<0.01	0.00707	<0.01	<0.01	0.00049	0.0119	<0.001	0.00103	0.039	<0.0002	<0.002	0.196	<0.00002	78.3	<0.002	<0.0004
RSEM-L5W-P2-SP	6/5/2021 15:40	ZY0225	M	C138844	5.40	0.011	2.19	<0.00004	537	0.449	377	0.000024	<0.01	<0.01	0.00855	<0.01	<0.01	0.00032	0.0116	0.0011	0.00116	0.035	<0.0002	<0.002	0.24	<0.00002	69.7	<0.002	<0.0004
RSEM-L5W-P2-SP	6/10/2021 10:40	ZY8801	M	C140527	4.76	0.0117	2.06	<0.00004	516	0.458	354	<0.00002	<0.01	<0.01	0.00822	<0.01	<0.01	0.00024	0.0107	0.0011	0.00121	0.031	<0.0002	<0.002	0.225	<0.00002	65.5	<0.002	<0.0004
RSEM-L5W-P2-SP	6/14/2021 10:00	ZZ2011	M	C141059	5.01	0.0105	2.27	<0.00004	532	0.455	372	0.000022	<0.01	<0.01	0.00913	<0.01	<0.01	0.00029	0.0107	0.001	0.00112	0.03	<0.0002	<0.002	0.243	<0.00002	66.5	<0.002	<0.0004
RSEM-L5W-P2-SP	6/20/2021 12:20	AAF492	M	C143330	5.64	0.0129	1.61	<0.00002	554	0.615	502	0.000022	<0.005	<0.005	0.0095	<0.005	<0.005	0.0004	0.0123	0.00091	0.00105	0.026	<0.0001	<0.001	0.295	<0.00001	72.7	<0.001	0.0003
RSEM-L5W-P2-SP	6/23/2021 11:55	AAO117	M	C144722	4.37	0.0116	1.88	<0.00002	498	0.364	362	0.000022	<0.005	<0.005	0.00783	<0.005	<0.005	0.0004	0.0228	0.00132	0.00111	0.042	<0.0001	<0.001	0.347	<0.00001	77.8	<0.001	0.0003
RSEM-L5W-P2-SP	6/25/2021 11:35	AAP485	M	C144894	4.51	0.0113	1.67	<0.00002	493	0.369	429	0.000023	<0.005	<0.005	0.00793	<0.005	<0.005	<0.0001	0.0213	0.00133	0.00112	0.044	<0.0001	<0.001	0.344	<0.00001	75.7	<0.001	0.0003
RSEM-L5W-P2-SP	6/26/2021 13:40	AAU430	M	C145599	4.69	0.0101	1.61	<0.00002	467	0.383	437	0.000022	<0.005	<0.005	0.00795	<0.005	<0.005	0.00012	0.0142	0.00132	0.00101	0.047	<0.0001	<0.001	0.328	<0.00001	73.7	<0.001	0.00026
RSEM-L5W-P2-SP	6/28/2021 10:55	AAX134	M	C146134	4.61	0.0102	1.44	<0.00002	444	0.373	328	0.000023	<0.005	<0.005	0.00786	<0.005	0.0063	0.00013	0.014	0.00134	0.00102	0.05	<0.0001	<0.001	0.329	<0.00001	78.5	<0.001	0.0002
RSEM-L5W-P2-SP	6/29/2021 11:55	AAZ025	M	C146532	5.44	0.00949	2.1	<0.00002	498	0.593	394	<0.00001	<0.005	<0.005	0.00817	<0.005	<0.005	<0.0001	0.0694	0.00124	0.001	0.046	<0.0001	<0.001	0.267	<0.00001	63.9	<0.001	<0.0002
RSEM-L5W-P2-SP	6/30/2021 0:50	AAZ006	M	C146528	5.95	0.00876	1.69	<0.00002	352	0.585	306	<0.00001	<0.005	<0.005	0.0067	<0.005	<0.005	<0.0001	0.0692	0.00088	0.00076	0.057	<0.0001	<0.001	0.185	0.000024	71.3	<0.001	<0.0002
RSEM-L5W-P2-SP	7/1/2021 12:30	ABB248	M	C146903	5.53	0.00879	1.52	<0.00002	355	0.484	304	0.000035	<0.005	<0.005	0.00768	<0.005	<0.005	<0.0001	0.107	0.00091	0.00078	0.057	<0.0001	<0.001	0.203	0.000023	70.3	<0.001	<0.0002
RSEM-L5W-P2-SP	7/3/2021 14:05	ABE027	M	C147272	5.35	0.00901	1.67	<0.00002	455	0.465	334	0.000028	<0.005	<0.005	0.00845	<0.005	0.007	<0.0001	0.152	0.00111	0.00081	0.059	<0.0001	<0.001	0.274	0.000026	69.6	<0.001	0.00038
RSEM-L5W-P2-SP	7/4/2021 10:15	ABD989	M	C147267	5.65	0.00896	1.72	<0.00002	522	0.483	373	<0.00001	<0.005	<0.005	0.00905	<0.005	0.0064	<0.0001	0.239	0.00118	0.00076	0.061	<0.0001	<0.001	0.291	0.000021	68.5	<0.001	0.00044
RSEM-L5W-P2-SP	7/5/2021 11:55	ABG203	M	C147674	5.41	0.0094	2.04	<0.00002	551	0.515	384	<0.00001	<0.005	<0.005	0.00976	<0.005	<0.005	0.00012	0.213	0.0014	0.00096	0.058	<0.0001	<0.001	0.319	0.000038	65.8	<0.001	0.00061
RSEM-L5W-P2-SP	7/6/2021 15:00	ABJ182	M	C148228	5.19	0.00833	1.72	<0.00002	503	0.518	373	0.000027	<0.005	<0.005	0.00842	<0.005	<0.005	0.00011	0.352	0.00123	0.00097	0.054	<0.0001	<0.001	0.289	<0.00001	68.3	<0.001	0.00025
RSEM-L5W-P2-SP	7/7/2021 16:00	ABK536	M	C148516	5.26	0.00871	1.66	<0.00002	497	0.52	370	0.000029	<0.005	<0.005	0.00827	<0.005	0.0054	0.0001	0.182	0.00119	0.00108	0.054	<0.0001	<0.001	0.255	0.000011	68.0	<0.001	<0.0002
RSEM-L5W-P2-SP	7/8/2021 17:20	ABM766	M	C148925	5.44	0.00905	1.46	<0.00002	484	0.467	332	0.000032	<0.005	<0.005	0.00806	<0.005	<0.005	<0.0001	0.108	0.00111	0.00085	0.057	<0.0001	<0.001	0.23	<0.00001	69.5	<0.001	<0.0002
RSEM-L5W-P2-SP	7/9/2021 12:00	ABM749	M	C148923	6.32	0.00879	1.36	<0.00002	486	0.522	357	0.000022	<0.005	<0.005	0.00744	<0.005	<0.005	<0.0001	0.0785	0.00099	0.00065	0.062	<0.0001	<0.001	0.208	0.000012	72.2	<0.001	<0.0002
RSEM-L5W-P2-SP	7/10/2021 14:30	ABP530	M	C149429	5.38	0.00902	1.45	<0.00002	513	0.447	348	0.000024	<0.005	<0.005	0.0075	<0.005	<0.005	0.00039	0.167	0.0011	0.0009	0.055	<0.0001	<0.001	0.241	<0.00001	66.4	<0.001	<0.0002
RSEM-L5W-P2-SP	7/11/2021 12:30	ABP676	M	C149459	5.30	0.00759	1.23	<0.00002	459	0.438	310	0.000026	<0.005	<0.005	0.00711	<0.005	<0.005	<0.0001	0.18	0.00097	0.00086	0.056	<0.0001	<0.001	0.224	<0.00001	69.4	<0.001	<0.0002
RSEM-L5W-P2-SP	7/13/2021 11:10	ABU093	M	C150243	5.64	0.0078	1.41	<0.00002	464	0.538	354	0.000032	<0.005	<0.005	0.00864	<0.005	<0.005	0.00021	0.173	0.00107	0.00102	0.054	<0.0001	<0.001	0.21	0.000015	71.6	<0.001	<0.0002
RSEM-L5W-P2-SP	7/15/2021 12:40	ABY390	M	C150960	5.68	0.00748	1.27	<0.00002	507	0.558	366	0.000029	<0.005	<0.005	0.00967	<0.005	<0.005	<0.0001	0.114	0.00103	0.00085	0.051	<0.0001	<0.001	0.183	0.000029	69.3	<0.001	<0.0002
RSEM-L5W-P2-SP	7/17/2021 12:35	ACC245	M	C151542	5.46	0.00855	1.07	<0.00002	410	0.427	404	0.000024	<0.005	<0.005	0.00815	<0.005	<0.005	<0.0001	0.0631	0.00087	0.00077	0.05	<0.0001	<0.001	0.164	0.00002	70.8	<0.001	<0.0002
RSEM-L5W-P2-SP	7/19/2021 12:05	ACF041	M	C151946	5.55	0.00812	1.19	<0.00002	406	0.529	359	0.000029	<0.005	<0.005	0.00957	<0.005	<0.005	0.00012	0.129	0.00093	0.00076	0.048	<0.0001	<0.001	0.173	0.000026	69.5	<0.001	<0.0002
RSEM-L5W-P2-SP	7/21/2021 11:30	ACH931	M	C152481	5.33	0.00823	1.25	<0.00002	453	0.433	330	0.000027	<0.005	<0.005	0.00819	<0.005	<0.005	<0.0001	0.016	0.00087	0.00049	0.048	<0.0001	<0.001	0.292	<0.00001	69.8	<0.001	<0.0002
RSEM-L5W-P2-SP	7/23/2021 12:40	ACL704	M	C153012	5.33	0.00822	1.23	<0.00002	410	0.446	327	0.000028	<0.005	<0.005	0.00784	<0.005	<0.005	<0.0001	0.0153	0.00066	0.00041	0.048	<0.0001	<0.001	0.226	<0.00001	79.5	<0.001	<0.0002
RSEM-L5W-P2-SP	7/24/2021 10:45	ACO403	M	C153513	5.93	0.00679	1.29	<0.00002	530	0.514	381	<0.00001	<0.005	<0.005	0.00875	<0.005	<0.005	<0.0001	0.0159	0.00073	0.00049	0.051	<0.0001	<0.001	0.243	<0.00001	75.9	<0.001	<0.0002
RSEM-L5W-P2-SP	7/25/2021 11:10	ACO186	M	C153467	5.48	0.00644	1.09	<0.00002	423	0.463	344	0.000027	<0.005	<0.005	0.00784	<0.005	<0.005	0.0002	0.0142	0.0007	0.00041	0.051	<0.0001	<0.001	0.224	<0.00001	78.2	<0.001	<0.0002
RSEM-L5W-P2-SP	7/26/2021 11:45	ACN523	M	C153324	6.19	0.00899	1.48	<0.00002	568	0.57	436	0.000016	<0.005	<0.005	0.00948	<0.005	<0.005	<0.0001		0.00072	0.00055	0.051	<0.0001	<0.001	0.233	<0.00001	76.1		
RSEM-L5W-P2-SP	7/27/2021 16:00	ACT049	M	C154246	6.70	0.00809	1.33	<0.00002	589	0.586	426	<0.00001	<0.005	<0.005	0.0101	<0.005	<0.005	0.00011	0.009	0.0007	0.00046	0.047	<0.0001	<0.001	0.253	<0.00001	77.9	<0.001	<0.0002
RSEM-L5W-P2-SP	7/28/2021 16:20	ACV593	M	C154699	6.00	0.0103	1.17	<0.0001	509	0.527	371	<0.00005	<0.025	<0.025	0.00843	<0.025	<0.025	<0.0005	0.0063	0.00086	0.00065	0.051	<0.0001	<0.001	0.218	<0.00001	77.3	<0.001	<0.0002
RSEM-L5W-P2-SP	7/30/2021 12:00	ACY657	M	C155288	5.71	0.01	1.09	<0.0001	495	0.508	366	<0.00005	<0.025	<0.025	0.00835	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.051	<0.0005	<0.005	0.326	<0.00005	78.7	<0.005	<0.001
RSEM-L5W-P2-SP	8/1/2021 14:30	ADC695	M	C155924	6.03	0.0101	1.17	<0.0001	537	0.51	386	<0.00005	<0.025	<0.025	0.00891	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.048	<0.0005	<0.005	0.318	<0.00005	74.9	<0.005	<0.001
RSEM-L5W-P2-SP	8/5/2021 15:50	ADK139	M	C157133	6.14	0.0103	1.03	<0.00002	496	0.604	371	0.00003	<0.005	<0.005	0.00927	<0.005	<0.005	0.00011	<0.015	<0.0025	<0.0005	0.047	<0.0005	<0.005	0.292	<0.00005	72.8	<0.005	<0.001
RSEM-L5W-P2-SP	8/6/2021 10:50	ADK126	M	C157131	6.19	0.0098	1.05	<0.00002	492	0.607	366	0.00003	<0.005	<0.005	0.00937	<0.005	<0.005	<0.0001	<0.015	<0.0025	0.00055	0.048	<0.0005	<0.005	0.256	<0.00005	72.4	<0.005	<0.001
RSEM-L5W-P2-SP	8/7/2021 16:40	ADM461	M	C157545	6.04	0.00948	1.04	<0.00002	663	0.541	444	0.00003	<0.005	<0.005	0.0101	<0.005	<0.005	<0.0001	<0.015	<0.0025	<0.0005	0.044	<0.0005	<0.005	0.286	<0.00005	74.6	<0.005	<0.001
RSEM-L5W-P2-SP	8/8/2021 10:55	ADN231	M	C157651	5.44	0.00778	0.852	<0.0001	506	0.446	438	<0.00005	<0.025	<0.025	0.00826	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.042	<0.0005	<0.005	0.296	<0.00005	75.3	<0.005	<0.001
RSEM-L5W-P2-SP	8/9/2021 10:30	ADM371	M	C157523	5.88	0.00937	0.989	<0.00002	596	0.523	430	0.000029	<0.005	<0.005	0.00947	<0.005	<0.005	0.00012	0.0062	0.00088	0.00066	0.046	<0.0001	<0.001	0.3	<0.00001	76.2	<0.001	<0.0002
RSEM-L5W-P2-SP	8/10/2021 15:50	ADP903	M	C158211	5.68	0.00795	0.821	<0.0001	514	0.456	426	<0.00005	<0.025	<0.025	0.00862	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00053	0.043	<0.0005	<0.005	0.296	<0.00005	76.0	<0.005	<0.001
RSEM-L5W-P2-SP	8/12/2021 15:50	ADU542	M	C159104	5.68	0.00781	0.773	<0.0001	515	0.45	451	<0.00005	<0.025	<0.025	0.00862	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00067	0.045	<0.0005	<0.005	0.352	<0.00005	78.2	<0.005	<0.001
RSEM-L5W-P2-SP	8/14/2021 15:50	ADW204	M	C159435	6.64	0.00955	0.878	<0.00002	616	0.662	449	0.000018	<0.005	<0.005	0.00987	<0.005	<0.005	<0.0001	0.0063	0.00111	0.00062	0.045	<0.0001	<0.001	0.283	<0.00001	79.0	<0.001	<0.0002
RSEM-L5W-P2-SP	8/16/2021 15:50	ADY266	M	C159861	6.48	0.0105	0.887	<0.0001	610	0.604	478	<0.00005	<0.025	<0.025	0.0104	<0.025	<0.025	<0.0005	0.0056	0.0009	0.00069	0.041	<0.0001	<0.001	0.305	<0.00001	71.9	<0.001	<0.0002
RSEM-L5W-P2-SP	8/18/2021 15:40	AED520	M	C160793	6.35	0.0115	0.749	<0.00002	533	0.55	431	0.000027	<0.005	<0.005	0.00921	<0.005	<0.005	0.0001	0.0055	0.00098	0.00063	0.041	<0.0001	<0.001	0.288	<0.00001	71.8	<0.001	<0.0002
RSEM-L5W-P2-SP	8/20/2021 12:40	AEF526	M	C161059	6.22	0.0114	0.699	<0.00002	2620	0.535	2160	0.000037	<0.005	<0.005	0.00911	<0.005	<0.005	<0.0001	0.0082	0.00098	0.00062	0.041	<0.0001	<0.001	0.308	<0.00001	75.7	<0.001	<0.0002
RSEM-L5W-P2-SP	8/21/2021 16:40	AEI352	M	C161420	6.37	0.0121	0.747	<0.00002	659	0.589	469	0.000029	<0.005	<0.005	0.00972	<0.005	<0.005	<0.0001	0.0059	0.00105	0.00068	0.04	<0.0001	<0.001	0.307	<0.00001	72.9	<0.001	<0.0002
RSEM-L5W-P2-SP	8/22/2021 10:00	AEI414	M	C161433	6.32	0.0129	0.962	<0.00002	614	0.558	451	0.000027	<0.005	<0.005	0.00982	<0.005	<0.005	<0.0001	0.0052	0.00103	0.00057	0.041	<0.0001	<0.001	0.293	<0.00001	73.0	<0.001	<0.0002
RSEM-L5W-P2-SP	8/23/2021 13:30	AEL594	M	C161925	6.15	0.0112	0.823	<0.00002	586	0.544	444	0.000025	<0.005	<0.005	0.00922	<0.005	0.0065	<0.0001	<0.015	<0.0025	0.00056	0.042	<0.0005	<0.005	0.298	<0.00005	76.5	<0.005	<0.001
RSEM-L5W-P2-SP	8/24/2021 13:45	AEN134	M	C162291	6.13	0.0107	0.905	<0.00002	572	0.56	429	0.000026	<0.005	<0.005	0.00973	<0.005	<0.005	<0.0001	0.0051	0.00106	0.00053	0.04	<0.0001	<0.001	0.337	<0.00001	75.8	<0.001	<0.0002
RSEM-L5W-P2-SP	9/7/2021 16:00	AFL348	M	C166557	6.45	0.00922	0.657	<0.0001	604	0.519	432	<0.00005	<0.025	<0.025	0.00876	<0.025	<0.025	<0.0005	0.0054	0.00065	0.00045	0.03	<0.0001	<0.001	0.298	<0.00001	83.0	<0.001	<0.0002
RSEM-L5W-P2-SP	9/8/2021 16:00	AFO060	M	C167059	6.60	0.00941	0.6	<0.0001	639	0.557	465	<0.00005	<0.025	<0.025	0.0099	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.0006	0.034	<0.0005	<0.005	0.332	<0.00005	86.2	<0.005	<0.001
RSEM-L5W-P2-SP	9/9/2021 15:50	AFQ848	M	C167445	6.35	0.00958	0.563	<0.00002	596	0.591	495	0.000012	<0.005	<0.005	0.00922	<0.005	<0.005	<0.0001	<0.015	<0.0025	<0.0005	0.032	<0.0005	<0.005	0.31	<0.00005	79.6	<0.005	<0.001
RSEM-L5W-P2-SP	9/10/2021 12:00	AFQ884	M	C167449	6.64	0.0097	0.553	<0.0001	644	0.567	487	<0.00005	<0.025	<0.025	0.0102	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00066	0.03	<0.0005	<0.005	0.285	<0.00005	77.5	<0.005	<0.001
RSEM-L5W-P2-SP	9/11/2021 15:30	AFV356	M	C168029	6.74	0.0112	<0.5	<0.0001	624	0.616	393	<0.00005	<0.025	<0.025	0.0099	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.0005	0.032	<0.0005	<0.005	0.312	<0.00005	79.9	<0.005	<0.001
RSEM-L5W-P2-SP	9/15/2021 15:10	AGD168	M	C169361	6.54	0.00944	0.531	<0.0001	613	0.598	451	<0.00005	<0.025	<0.025	0.00975	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.034	<0.0005	<0.005	0.343	<0.00005	94.6	<0.005	<0.001
RSEM-L6-EOP	4/30/2021 7:00	ZS2246	M	C128573	3.74	0.00121	3.74	<0.00002	61.5	0.317	81.2	0.000044	<0.005	0.0866	0.00258	0.006	0.0196	0.00192	0.0057	<0.0005	0.00026	0.047	<0.0001	<0.001	0.058	0.000038	58.3	<0.001	<0.0002
RSEM-L6-SP	4/14/2021 13:00	ZP9472	M	C124397	2.84	0.00098	1.41	<0.00002	46.4	0.245	53.8	0.000012	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.0046	<0.0005	0.00021	0.051	<0.0001	<0.001	<0.05	0.000063	51.3	<0.001	0.00032
RSEM-L6-SP	4/29/2021 16:00	ZS2245	M	C128573	2.38	0.00072	2.92	<0.00002	32.2	0.241	46.4	0.000021	<0.005	0.0215	0.00178	<0.005	0.0095	0.00177	<0.003	<0.0005	0.00026	0.144	<0.0001	<0.001	<0.05	0.00002	67.4	<0.001	<0.0002
RSEM-L6-SP	8/25/2021 17:10	AEP248	M	C162703	4.65	0.00238	0.92	<0.00002	57.0	0.632	115	0.000011	<0.005	<0.005	0.00195	<0.005	<0.005	<0.0001	0.0081	<0.0005	0.00041	0.088	<0.0001	<0.001	0.082	0.000017	112	<0.001	<0.0002
RSEM-L6-SP	8/26/2021 17:00	AER560	M	C163145	4.82	0.00282	0.918	<0.00002	62.2	0.69	129	0.000014	<0.005	<0.005	0.00218	<0.005	<0.005	<0.0001	0.0155	<0.0005	0.00043	0.089	<0.0001	<0.001	0.105	0.000033	115	<0.001	<0.0002
RSEM-L6-SP	8/27/2021 9:45	AER551	M	C163144	4.65	0.00217	0.777	<0.00002	58.1	0.701	120	0.00001	<0.005	<0.005	0.00211	<0.005	<0.005	<0.0001	0.0081	<0.0005	0.00042	0.087	<0.0001	<0.001	0.105	0.000019	110	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	10/27/2021 15:50	AJH727	M	C182990	4.60	0.00155	<0.1	<0.00002	65.4	0.658	148	<0.00001	<0.005	<0.005	0.00216	<0.005	<0.005	<0.0001	0.0062	<0.0005	0.00049	0.054	<0.0001	<0.001	0.1	0.000017	124	<0.001	<0.0002
RSEM-L6-SP	11/9/2021 12:30	AKJ864	M	C187047	5.35	0.00197	0.175	<0.00002	72.5	0.762	138	<0.00001	<0.005	<0.005	0.00252	<0.005	<0.005	<0.0001	0.0061	<0.0005	0.00038	0.057	<0.0001	<0.001	0.115	0.000016	122	<0.001	<0.0002
RSEM-R5A-P2-A-SP	5/5/2021 14:40	ZT3124	M	C130491	2.87	0.0111	2.71	<0.00002	55.0	0.193	66.5	<0.00001	<0.005	<0.005	0.00317	<0.005	<0.005	<0.0001	0.0069	0.00079	0.0004	0.096	<0.0001	<0.001	0.059	<0.00001	54.7	0.0012	<0.0002
RSEM-R5A-P2-B-SP	5/5/2021 15:00	ZT3125	M	C130491	3.27	0.012	2.88	<0.00002	61.8	0.214	65.1	0.00002	<0.005	0.0158	0.00395	<0.005	<0.005	0.00046	0.0061	0.00135	0.00054	0.095	<0.0001	<0.001	0.063	<0.00001	43.2	0.0019	<0.0002
RSEM-R5A-P2-C-SP	5/14/2021 11:50	ZU4953	M	C132327	3.89	0.0105	5.71	<0.00002	69.6	0.221	67.5	0.000035	<0.005	0.056	0.00451	0.0054	0.0067	0.0015	0.0041	0.0013	0.00063	0.122	<0.0001	<0.001	0.085	<0.00001	45.5	0.0016	<0.0002
RSEM-R5A-P2-C-SP	5/19/2021 15:15	ZV3577	M	C134016	3.48	0.0118	2.59	<0.00002	71.3	0.224	71.9	0.000018	<0.005	<0.005	0.00427	<0.005	<0.005	0.00021	0.0072	0.00133	0.00055	0.123	<0.0001	<0.001	0.07	0.000016	46.3	0.0017	<0.0002
RSEM-R5A-P2-D-SP	5/14/2021 12:05	ZU4954	M	C132327	3.16	0.0112	2.16	<0.00002	60.1	0.197	62.9	<0.00001	<0.005	<0.005	0.00396	<0.005	<0.005	<0.0001	0.0083	0.00119	0.00049	0.089	<0.0001	<0.001	0.079	<0.00001	48.8	0.0017	<0.0002
RSEM-R5A-P2-D-SP	5/19/2021 15:25	ZV3578	M	C134016	3.30	0.0127	1.58	<0.00002	67.1	0.204	72.9	0.000011	<0.005	<0.005	0.004	<0.005	<0.005	0.00011	0.0092	0.0012	0.00045	0.084	<0.0001	<0.001	0.063	0.000011	43.0	0.0017	<0.0002
RSEM-R5A-P2-D-SP	8/26/2021 13:30	AER556	M	C163145	6.29	0.0249	1.96	<0.00002	180	0.535	219	0.000026	<0.005	<0.005	0.00313	<0.005	<0.005	0.00016	0.0113	0.00059	0.00043	0.065	<0.0001	<0.001	0.19	0.000066	118	<0.001	0.00159
RSEM-R5B-P2-Sump	5/2/2021 15:05	ZS6050	M	C129102	3.64	0.0274	3.24	<0.00002	46.3	0.393	61.3	0.000011	<0.005	<0.005	0.00644	<0.005	<0.005	<0.0001	<0.003	0.00183	0.00045	0.071	<0.0001	<0.001	0.079	<0.00001	72.3	<0.001	0.00028
RSEM-R5B-P2-Sump	5/12/2021 12:30	ZU2126	M	C131927	3.65	0.023	2.9	<0.00002	44.2	0.368	59.3	0.000012	<0.005	<0.005	0.00607	<0.005	<0.005	<0.0001	<0.003	0.00178	0.0005	0.07	<0.0001	<0.001	0.06	<0.00001	75.3	<0.001	<0.0002
RSEM-R5B-P2-Sump	5/18/2021 12:30	ZV2800	M	C133850	3.92	0.0224	2.79	<0.00002	46.9	0.404	64.9	0.000014	<0.005	<0.005	0.00629	<0.005	<0.005	<0.0001	0.0033	0.00154	0.00042	0.062	<0.0001	<0.001	0.06	0.00001	61.9	<0.001	<0.0002
RSEM-R5B-P2-Sump	6/2/2021 14:30	ZX5272	M	C138096	4.23	0.0152	2.05	<0.00002	53.7	0.445	71.8	0.000018	<0.005	<0.005	0.00634	<0.005	<0.005	0.00014	0.0092	0.00141	0.00053	0.073	<0.0001	<0.001	0.077	<0.00001	60.3	<0.001	<0.0002
RSEM-R5B-P2-Sump	6/10/2021 13:30	ZY8802	M	C140527	4.29	0.013	2.54	<0.00002	61.7	0.491	77.8	0.000023	<0.005	0.0062	0.00701	<0.005	<0.005	0.00023	0.0058	0.00168	0.00068	0.084	<0.0001	<0.001	0.084	<0.00001	59.9	<0.001	<0.0002
RSEM-R5B-P2-Sump	6/23/2021 13:15	AAO118	M	C144722	4.09	0.0186	1.85	<0.00002	70.7	0.435	54.9	0.000026	<0.005	<0.005	0.00597	<0.005	<0.005	<0.0001	0.0062	0.00121	0.00048	0.078	<0.0001	<0.001	0.116	<0.00001	58.0	<0.001	<0.0002
RSEM-R5B-P2-Sump	7/11/2021 13:30	ABP677	M	C149459	5.67	0.0101	3	<0.00002	68.9	0.514	97.4	<0.00001	<0.005	<0.005	0.00627	<0.005	<0.005	0.0001	0.0668	0.00066	0.00064	0.093	<0.0001	<0.001	0.108	<0.00001	62.8	<0.001	<0.0002
RSEM-R5B-P2-Sump	7/15/2021 13:50	ABY391	M	C150960	5.86	0.00936	3.24	<0.00002	63.2	0.587	93.1	0.000031	<0.005	<0.005	0.007	<0.005	<0.005	<0.0001	0.03	0.00064	0.00064	0.099	<0.0001	<0.001	0.087	<0.00001	60.1	<0.001	<0.0002
RSEM-R5B-P2-Sump	7/22/2021 13:25	ACL551	M	C152988	5.05	0.00842	3.34	<0.00002	63.3	0.488	78.9	0.000022	<0.005	0.0056	0.00573	<0.005	<0.005	0.00015	0.0175	<0.0005	0.0005	0.076	<0.0001	<0.001	0.12	<0.00001	75.6	<0.001	<0.0002
RSEM-R5B-P2-Sump	7/28/2021 15:00	ACV591	M	C154699	5.46	0.0128	2.31	<0.00002	77.4	0.561	104	0.000023	<0.005	<0.005	0.00592	<0.005	<0.005	0.00011	0.0095	0.0006	0.0006	0.074	<0.0001	<0.001	0.108	<0.00001	63.3	<0.001	<0.0002
RSEM-R5B-P2-Sump	8/12/2021 14:30	ADU543	M	C159104	6.00	0.00807	1.77	<0.00002	73.1	0.792	92.4	0.000027	<0.005	<0.005	0.00565	<0.005	0.0082	0.00013	0.0123	0.00076	0.00052	0.084	<0.0001	<0.001	0.138	<0.00001	78.1	<0.001	<0.0002
RSEM-R5B-P2-Sump	8/18/2021 14:30	AED524	M	C160793	6.23	0.0121	1.84	<0.00002	82.1	0.805	108	0.000028	<0.005	<0.005	0.00536	<0.005	<0.005	<0.0001	0.0101	0.00066	0.00054	0.081	<0.0001	<0.001	0.13	<0.00001	72.6	<0.001	<0.0002
RSEM-R5B-P2-Sump	8/25/2021 12:50	AEP245	M	C162703	6.30	0.00747	1.62	<0.00002	80.9	0.96	117	0.000024	<0.005	<0.005	0.00595	<0.005	0.0184	<0.0001	0.107	<0.0005	0.00028	0.068	<0.0001	<0.001	0.091	0.000285	94.4	<0.001	0.0112
RSEM-R5B-P2-Sump	9/1/2021 12:55	AFC996	M	C165103	5.37	0.00573	1.28	<0.00002	78.8	0.868	97.2	0.000022	<0.005	<0.005	0.00486	<0.005	<0.005	0.00013	0.0679	<0.0005	0.00032	0.059	<0.0001	<0.001	0.14	0.000056	90.9	<0.001	0.00357
RSEM-R5B-P2-Sump	9/8/2021 14:00	AFO064	M	C167059	5.78	0.00589	1.03	<0.00002	78.3	0.828	126	0.000019	<0.005	<0.005	0.00584	<0.005	<0.005	<0.0001	0.0463	<0.0005	0.00033	0.057	<0.0001	<0.001	0.111	0.000015	84.0	<0.001	0.00082
RSEM-R5B-P2-Sump	9/14/2021 14:05	AGB020	M	C169017	5.48	0.00569	0.721	<0.00002	73.2	0.813	112	0.000018	<0.005	<0.005	0.00527	<0.005	0.006	0.00011	0.0293	<0.0005	0.00035	0.059	<0.0001	<0.001	0.108	0.00001	84.3	<0.001	0.00026
RSEM-R5B-P2-Sump	9/23/2021 14:35	AGT569	M	C171954	4.81	0.00654	1.02	<0.00002	60.2	0.688	90.5	0.000017	<0.005	0.0063	0.00476	<0.005	0.0084	0.00011	0.012	<0.0005	0.0003	0.052	<0.0001	<0.001	0.117	<0.00001	79.5	<0.001	<0.0002
RSEM-R5B-P2-Sump	10/7/2021 12:40	AHU814	M	C176559	4.23	0.00385	1.19	<0.00002	52.6	0.532	65.3	0.000016	<0.005	<0.005	0.00445	<0.005	<0.005	0.00016	0.0055	<0.0005	0.00022	0.049	<0.0001	<0.001	0.064	<0.00001	76.8	<0.001	<0.0002
RSEM-R5B-P2-Sump	10/14/2021 12:35	AIG811	M	C178651	3.69	0.00464	1.32	<0.00002	41.0	0.431	26.7	0.000014	<0.005	<0.005	0.00484	<0.005	<0.005	0.00012	0.0048	<0.0005	0.00023	0.043	<0.0001	<0.001	0.081	<0.00001	70.6	<0.001	<0.0002
RSEM-R5B-P2-Sump	10/20/2021 16:20	AIT539	M	C180689	3.94	0.00267	2.88	<0.00002	43.0	0.482	61.3	0.000016	<0.005	0.0051	0.00442	<0.005	<0.005	0.00024	0.0049	<0.0005	0.00023	0.04	<0.0001	<0.001	0.069	<0.00001	70.0	<0.001	<0.0002
RSEM-R5B-P2-Sump	10/27/2021 11:10	AJH726	M	C182990	3.83	0.00238	1.71	<0.00002	39.9	0.452	61.0	0.000015	<0.005	<0.005	0.00424	<0.005	0.0104	<0.0001	0.0042	<0.0005	0.00025	0.047	<0.0001	<0.001	0.064	<0.00001	73.0	<0.001	<0.0002
RSEM-R5B-P2-Sump	11/2/2021 11:35	AJU791	M	C184881	4.35	0.00637	4.74	0.000045	39.2	0.497	49.0	0.000064	<0.005	0.026	0.00447	0.0051	0.0179	0.00025	<0.003	<0.0005	0.00028	0.032	<0.0001	<0.001	0.072	0.000011	96.9	<0.001	0.00029
RSEM-R5B-P2-Sump	11/14/2021 14:00	AKS794	M	C188243	5.15	0.00454	7.04	0.000026	41.9	0.502	65.1	0.00007	<0.005	0.0403	0.0062	<0.005	0.0139	0.00093	<0.003	<0.0005	0.0003	0.045	<0.0001	<0.001	0.071	<0.00001	102	<0.001	0.00061
RSEM-R5B-P2-Sump	11/16/2021 11:20	AKV422	M	C188704	4.59	0.00382	5.4	<0.00002	39.6	0.448	55.1	0.000057	<0.005	0.014	0.00577	<0.005	0.01	0.00127	0.0032	<0.0005	0.00029	0.037	<0.0001	<0.001	0.063	<0.00001	102	<0.001	0.00059
RSEM-R6E-EOP	1/1/2021 15:00	ZC6627	M	C100093	3.20	0.00111	3.98	<0.00002	42.2	0.385	42.3	<0.00001	<0.005	<0.005	0.00191	<0.005	0.0135	<0.0001	0.0105	<0.0005	0.00041	0.132	<0.0001	<0.001	0.066	0.000036	98.3	<0.001	0.00089
RSEM-R6E-EOP	1/2/2021 16:05	ZC7219	M	C100230	3.17	0.00106	4.12	<0.00002	41.7	0.395	42.3	<0.00001	<0.005	<0.005	0.00192	<0.005	0.0082	<0.0001	0.0102	<0.0005	0.00041	0.131	<0.0001	<0.001	0.064	0.000041	95.4	<0.001	0.00078
RSEM-R6E-EOP	1/3/2021 8:45	ZC7222	M	C100232	3.34	0.00113	4.29	<0.00002	43.3	0.411	44.2	<0.00001	<0.005	<0.005	0.00198	<0.005	0.0105	<0.0001	0.0099	<0.0005	0.00039	0.13	<0.0001	<0.001	0.065	0.00004	97.6	<0.001	0.00073
RSEM-R6E-EOP	1/4/2021 18:10	ZC8853	M	C100618	3.19	0.00103	3.96	<0.00002	40.8	0.393	40.6	<0.00001	<0.005	<0.005	0.00187	<0.005	0.0076	<0.0001	0.0085	<0.0005	0.00041	0.129	<0.0001	<0.001	0.066	0.000028	94.3	<0.001	0.00073
RSEM-R6E-EOP	1/5/2021 11:35	ZC8847	M	C100616	3.38	0.0011	4.12	<0.00002	41.9	0.41	42.5	<0.00001	<0.005	<0.005	0.00199	<0.005	0.008	<0.0001	0.0077	<0.0005	0.00041	0.126	<0.0001	<0.001	0.064	0.000031	93.0	<0.001	0.00062
RSEM-R6E-EOP	1/5/2021 11:45	ZC8848	D	C100616	3.38	0.00111	4.3	<0.00002	43.5	0.435	43.6	<0.00001	<0.005	<0.005	0.00203	<0.005	0.0078	<0.0001	0.0077	<0.0005	0.00042	0.125	<0.0001	<0.001	0.067	0.00003	95.2	<0.001	0.00061
RSEM-R6E-EOP	1/6/2021 13:30	ZD1294	M	C101203	3.44	0.00118	4.16	<0.00002	47.1	0.406	42.7	<0.00001	<0.005	<0.005	0.00213	<0.005	0.0373	0.00011	0.0072	<0.0005	0.00042	0.127	<0.0001	<0.001	0.071	0.000034	91.6	<0.001	0.00072
RSEM-R6E-EOP	1/7/2021 12:50	ZD2458	M	C101487	3.44	0.00114	4.27	<0.00002	51.2	0.404	43.7	<0.00001	<0.005	<0.005	0.0022	<0.005	0.0076	<0.0001	0.0069	<0.0005	0.00041	0.13	<0.0001	<0.001	0.073	0.000033	95.0	<0.001	0.00078
RSEM-R6E-EOP	1/7/2021 13:00	ZD2459	D	C101487	3.42	0.00117	4.22	<0.00002	50.3	0.407	43.7	<0.00001	<0.005	<0.005	0.00215	<0.005	0.0074	<0.0001	0.0071	<0.0005	0.00042	0.13	<0.0001	<0.001	0.071	0.000029	96.2	<0.001	0.0008
RSEM-R6E-EOP	1/8/2021 13:10	ZD2449	M	C101485	3.39	0.00122	4.38	<0.00002	50.4	0.41	42.9	<0.00001	<0.005	<0.005	0.00223	<0.005	0.0077	<0.0001	0.0065	<0.0005	0.0004	0.129	<0.0001	<0.001	0.073	0.000028	96.6	<0.001	0.00061
RSEM-R6E-EOP	1/9/2021 14:10	ZD4126	M	C101792	3.29	0.00129	3.92	<0.00002	52.7	0.371	42.7	<0.00001	<0.005	<0.005	0.00221	<0.005	0.0085	<0.0001	0.0064	<0.0005	0.00039	0.129	<0.0001	<0.001	0.074	0.000025	94.4	<0.001	0.00064
RSEM-R6E-EOP	1/10/2021 12:40	ZD4122	M	C101791	3.23	0.00123	3.87	<0.00002	51.3	0.359	40.1	<0.00001	<0.005	<0.005	0.00222	<0.005	0.008	<0.0001	0.0058	<0.0005	0.00041	0.132	<0.0001	<0.001	0.073	0.000021	94.0	<0.001	0.00062
RSEM-R6E-EOP	1/10/2021 12:50	ZD4123	D	C101791	3.26	0.00128	4.04	<0.00002	52.5	0.368	40.1	<0.00001	<0.005	<0.005	0.0023	<0.005	0.0084	<0.0001	0.0066	<0.0005	0.00038	0.129	<0.0001	<0.001	0.073	0.000023	93.6	<0.001	0.00063
RSEM-R6E-EOP	1/11/2021 14:10	ZD5674	M	C102082	3.13	0.00114	4.43	<0.00002	50.5	0.365	40.5	0.00001	<0.005	<0.005	0.00229	<0.005	0.0069	<0.0001	0.0047	<0.0005	0.00041	0.131	<0.0001	<0.001	0.071	0.000021	89.1	<0.001	0.00054
RSEM-R6E-EOP	1/12/2021 13:00	ZD8125	M	C102522	2.98	0.0011	4.47	<0.00002	51.0	0.341	40.2	<0.00001	<0.005	<0.005	0.00226	<0.005	0.007	<0.0001	0.0041	<0.0005	0.00038	0.131	<0.0001	<0.001	0.074	0.000023	88.2	<0.001	0.00057
RSEM-R6E-EOP	1/12/2021 13:10	ZD8126	D	C102522	3.12	0.00109	4.57	<0.00002	53.1	0.363	43.0	0.00001	<0.005	<0.005	0.00233	<0.005	0.0072	<0.0001	0.0041	<0.0005	0.00038	0.13	<0.0001	<0.001	0.074	0.000019	87.3	<0.001	0.00062
RSEM-R6E-EOP	1/13/2021 13:40	ZD9241	M	C102779	3.10	0.00106	4.56	<0.00002	49.0	0.361	40.8	<0.00001	<0.005	<0.005	0.0023	<0.005	0.0067	<0.0001	0.0046	<0.0005	0.0004	0.135	<0.0001	<0.001	0.069	0.000021	91.2	<0.001	0.00048
RSEM-R6E-EOP	1/14/2021 10:10	ZD9430	M	C102840	3.06	0.00103	4.62	<0.00002	49.7	0.364	40.3	<0.00001	<0.005	<0.005	0.00229	<0.005	0.0068	<0.0001	0.0048	<0.0005	0.00042	0.137	<0.0001	<0.001	0.068	0.000021	89.8	<0.001	0.0004
RSEM-R6E-EOP	1/14/2021 10:20	ZD9432	D	C102840	3.05	0.00105	4.51	<0.00002	50.6	0.353	39.8	<0.00001	<0.005	<0.005	0.00226	<0.005	0.0063	<0.0001	0.0045	<0.0005	0.00042	0.138	<0.0001	<0.001	0.069	0.000023	89.3	<0.001	0.00041
RSEM-R6E-EOP	1/15/2021 13:05	ZE0828	M	C103125	3.01	0.00108	4.7	<0.00002	48.8	0.34	38.0	<0.00001	<0.005	<0.005	0.00224	<0.005	0.0066	<0.0001	0.0038	<0.0005	0.00038	0.134	<0.0001	<0.001	0.065	0.000018	88.5	<0.001	0.00045
RSEM-R6E-EOP	1/16/2021 10:55	ZE2983	M	C103538	2.90	0.00105	4.49	<0.00002	46.7	0.334	36.7	<0.00001	<0.005	<0.005	0.00216	<0.005	0.0074	<0.0001	0.0035	<0.0005	0.0004	0.138	<0.0001	<0.001	0.069	0.000016	87.9	<0.001	0.00042
RSEM-R6E-EOP	1/17/2021 13:20	ZE3021	M	C103542	2.84	0.001	4.36	<0.00002	45.8	0.323	36.4	<0.00001	<0.005	<0.005	0.00204	<0.005	0.0063	<0.0001	0.0036	<0.0005	0.00038	0.14	<0.0001	<0.001	0.068	0.000016	86.3	<0.001	0.00039
RSEM-R6E-EOP	1/17/2021 13:30	ZE3022	D	C103542	2.82	0.00099	4.39	<0.00002	46.3	0.318	36.0	<0.00001	<0.005	<0.005	0.00204	<0.005	0.0061	<0.0001	0.0039	<0.0005	0.00039	0.137	<0.0001	<0.001	0.069	0.000017	85.4	<0.001	0.00038
RSEM-R6E-EOP	1/18/2021 10:20	ZE2900	M	C103523	2.82	0.001	4.45	<0.00002	45.6	0.317	36.1	<0.00001	<0.005	<0.005	0.00208	<0.005	0.0071	<0.0001	0.0033	<0.0005	0.00035	0.136	<0.0001	<0.001	0.067	0.000014	84.2	<0.001	0.00039
RSEM-R6E-EOP	1/19/2021 12:20	ZE5958	M	C104146	2.87	0.00093	4.18	<0.00002	44.0	0.289	35.6	<0.00001	<0.005	<0.005	0.00206	<0.005	0.0068	<0.0001	0.0033	<0.0005	0.00036	0.141	<0.0001	<0.001	0.062	0.000012	87.5	<0.001	0.00035
RSEM-R6E-EOP	1/20/2021 12:15	ZE6017	M	C104156	2.82	0.00092	4.42	<0.00002	46.3	0.298	34.1	<0.00001	<0.005	<0.005	0.00202	<0.005	0.0063	<0.0001	<0.003	<0.0005	0.00037	0.142	<0.0001	<0.001	0.064	0.000013	88.9	<0.001	0.00036
RSEM-R6E-EOP	1/21/2021 15:10	ZE9301	M	C104705	2.70	0.00086	4.22	<0.00002	44.2	0.285	34.0	<0.00001	<0.005	<0.005	0.00185	<0.005	0.007	<0.0001	0.0035	<0.0005	0.00032	0.13	<0.0001	<0.001	0.062	0.000011	83.2	<0.001	0.00028
RSEM-R6E-EOP	1/21/2021 15:20	ZE9303	D	C104705	2.73	0.00088	4.2	<0.00002	45.2	0.295	34.4	<0.00001	<0.005	<0.005	0.00194	<0.005	0.006	<0.0001	0.0034	<0.0005	0.00031	0.13	<0.0001	<0.001	0.062	0.000015	84.2	<0.001	0.00029
RSEM-R6E-EOP	1/22/2021 13:00	ZE9298	M	C104704	2.66	0.00092	4.41	<0.00002	44.9	0.295	35.3	<0.00001	<0.005	<0.005	0.00192	<0.005	0.0054	<0.0001	0.0036	<0.0005	0.00032	0.131	<0.0001	<0.001	0.058	0.000013	82.5	<0.001	0.00025
RSEM-R6E-EOP	1/23/2021 15:45	ZF1596	M	C105086	2.60	0.00087	4.29	<0.00002	42.8	0.285	33.2	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0056	<0.0001	0.0033	<0.0005	0.00032	0.139	<0.0001	<0.001	0.063	0.000012	82.5	<0.001	0.00023
RSEM-R6E-EOP	1/24/2021 13:45	ZF1581	M	C105082	2.71	0.00088	4.19	<0.00002	43.5	0.287	34.0	<0.00001	<0.005	<0.005	0.00197	<0.005	0.0056	<0.0001	0.0034	<0.0005	0.00032	0.14	<0.0001	<0.001	0.062	0.000014	86.2	<0.001	0.00022
RSEM-R6E-EOP	1/25/2021 9:50	ZF1640	M	C105090	2.67	0.00091	4.34	<0.00002	44.4	0.284	32.8	<0.00001	<0.005	<0.005	0.00195	<0.005	0.0058	<0.0001	0.006	<0.0005	0.00033	0.14	<0.0001	<0.001	0.064	0.000011	85.6	<0.001	0.00021
RSEM-R6E-EOP	1/26/2021 13:20	ZF4771	M	C105637	2.81	0.001	4.6	<0.00002	46.4	0.302	36.2	<0.00001	<0.005	<0.005	0.00204	<0.005	0.0067	<0.0001	0.0039	<0.0005	0.00034	0.137	<0.0001	<0.001	0.061	0.000014	87.2	<0.001	0.00028
RSEM-R6E-EOP	1/26/2021 13:30	ZF4772	D	C105637	2.92	0.00099	4.59	<0.00002	49.3	0.307	36.6	<0.00001	<0.005	<0.005	0.00206	<0.005	0.0066	<0.0001	0.0036	<0.0005	0.00034	0.136	<0.0001	<0.001	0.062	0.000013	84.2	<0.001	0.00028
RSEM-R6E-EOP	1/27/2021 15:30	ZF6161	M	C105925	2.94	0.00095	4.62	<0.00002	48.6	0.31	37.6	<0.00001	<0.005	<0.005	0.002	<0.005	0.0064	<0.0001	0.0039	<0.0005	0.00036	0.138	<0.0001	<0.001	0.065	0.000018	89.4	<0.001	0.0003
RSEM-R6E-EOP	1/28/2021 15:30	ZF8627	M	C106327	2.91	0.00087	4.26	<0.00002	50.6	0.301	36.2	<0.00001	<0.005	<0.005	0.002	<0.005	0.0131	<0.0001	0.0035	<0.0005	0.00036	0.138	<0.0001	<0.001	0.067	0.000014	86.1	<0.001	0.00032

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	1/28/2021 15:40	ZF8628	D	C106327	2.83	0.0009	4.18	<0.00002	48.7	0.287	33.3	<0.00001	<0.005	<0.005	0.00191	<0.005	0.0095	<0.0001	0.0036	<0.0005	0.00037	0.139	<0.0001	<0.001	0.067	0.00001	85.5	<0.001	0.00032
RSEM-R6E-EOP	1/29/2021 13:05	ZF8823	M	C106336	2.82	0.00087	4.18	<0.00002	49.1	0.295	33.7	<0.00001	<0.005	<0.005	0.00191	<0.005	0.0081	<0.0001	0.0036	<0.0005	0.00038	0.142	<0.0001	<0.001	0.069	0.000013	86.2	<0.001	0.0003
RSEM-R6E-EOP	1/30/2021 13:45	ZG1727	M	C106702	3.05	0.00094	4.43	<0.00002	53.1	0.309	38.3	<0.00001	<0.005	<0.005	0.00195	<0.005	0.0078	<0.0001	0.0032	<0.0005	0.00038	0.139	<0.0001	<0.001	0.063	0.000017	86.7	<0.001	0.00031
RSEM-R6E-EOP	1/30/2021 13:55	ZG1728	D	C106702	2.94	0.00097	4.51	<0.00002	51.0	0.307	35.8	<0.00001	<0.005	<0.005	0.00194	<0.005	0.0079	<0.0001	<0.003	<0.0005	0.00039	0.141	<0.0001	<0.001	0.065	<0.00001	85.6	<0.001	0.00032
RSEM-R6E-EOP	1/31/2021 12:25	ZG1721	M	C106699	3.04	0.00093	4.43	<0.00002	53.7	0.302	36.7	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0074	<0.0001	<0.003	<0.0005	0.00039	0.141	<0.0001	<0.001	0.065	0.000011	84.9	<0.001	0.00031
RSEM-R6E-EOP	2/1/2021 14:15	ZG3586	M	C106954	2.85	0.0009	4.18	<0.00002	52.0	0.285	34.7	<0.00001	<0.005	<0.005	0.00197	<0.005	0.007	<0.0001	0.004	<0.0005	0.00038	0.141	<0.0001	<0.001	0.077	<0.00001	87.4	<0.001	0.00032
RSEM-R6E-EOP	2/1/2021 14:25	ZG3587	D	C106954	2.82	0.00094	4.16	<0.00002	51.2	0.283	35.1	<0.00001	<0.005	<0.005	0.00198	<0.005	0.0082	<0.0001	0.0042	<0.0005	0.00037	0.144	<0.0001	<0.001	0.078	0.00001	88.1	<0.001	0.00031
RSEM-R6E-EOP	2/2/2021 13:35	ZG6913	M	C107364	2.97	0.00095	4.76	<0.00002	48.4	0.313	35.3	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0063	<0.0001	0.0036	<0.0005	0.00037	0.141	<0.0001	<0.001	0.079	<0.00001	87.2	<0.001	0.00028
RSEM-R6E-EOP	2/6/2021 13:20	ZH3138	M	C108285	3.13	0.00097	4.58	<0.00002	57.3	0.314	37.2	<0.00001	<0.005	<0.005	0.00199	<0.005	0.008	0.0001	0.0036	<0.0005	0.00041	0.144	<0.0001	<0.001	0.075	0.000016	79.2	<0.001	0.0002
RSEM-R6E-EOP	2/7/2021 13:15	ZH3206	M	C108294	3.04	0.00097	4.35	<0.00002	56.4	0.294	37.0	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0071	<0.0001	0.0035	<0.0005	0.00044	0.147	<0.0001	<0.001	0.081	0.000014	78.5	<0.001	<0.0002
RSEM-R6E-EOP	2/9/2021 15:40	ZH7146	M	C109072	2.95	0.00097	4.54	<0.00002	55.2	0.297	35.3	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0067	<0.0001	0.0033	<0.0005	0.00035	0.145	<0.0001	<0.001	0.078	0.000012	84.5	<0.001	<0.0002
RSEM-R6E-EOP	2/10/2021 13:00	ZH7145	M	C109071	3.11	0.00094	4.66	<0.00002	57.3	0.309	38.7	<0.00001	<0.005	<0.005	0.00204	<0.005	0.0072	<0.0001	0.0034	<0.0005	0.00036	0.148	<0.0001	<0.001	0.081	0.000011	85.9	<0.001	<0.0002
RSEM-R6E-EOP	2/11/2021 16:45	ZH8474	M	C109352	3.24	0.00099	4.72	<0.00002	59.4	0.301	39.1	<0.00001	<0.005	<0.005	0.00212	<0.005	0.0076	0.00015	0.0036	<0.0005	0.00034	0.139	<0.0001	<0.001	0.079	<0.00001	82.7	<0.001	<0.0002
RSEM-R6E-EOP	2/12/2021 10:40	ZH8472	M	C109351	3.19	0.00096	4.61	<0.00002	58.9	0.291	38.8	<0.00001	<0.005	<0.005	0.00213	<0.005	0.0077	<0.0001	0.003	<0.0005	0.00037	0.139	<0.0001	<0.001	0.081	<0.00001	82.4	<0.001	<0.0002
RSEM-R6E-EOP	2/13/2021 13:30	ZH8989	M	C109471	2.96	0.00091	4.55	<0.00002	55.2	0.28	37.0	<0.00001	<0.005	<0.005	0.00201	<0.005	0.017	<0.0001	0.0033	<0.0005	0.00033	0.136	<0.0001	<0.001	0.081	<0.00001	81.5	<0.001	0.0002
RSEM-R6E-EOP	2/14/2021 9:45	ZI0120	M	C109675	3.09	0.00092	4.69	<0.00002	56.8	0.285	36.7	0.000015	<0.005	<0.005	0.00194	<0.005	0.0074	<0.0001	0.0031	<0.0005	0.00039	0.144	<0.0001	<0.001	0.083	0.000013	82.2	<0.001	0.0002
RSEM-R6E-EOP	2/19/2021 12:45	ZI6370	M	C110747	3.29	0.00094	4.73	<0.00002	59.1	0.317	38.9	<0.00001	<0.005	<0.005	0.00204	<0.005	0.0083	0.00011	0.0031	<0.0005	0.00039	0.145	<0.0001	<0.001	0.089	0.00001	84.6	<0.001	0.00022
RSEM-R6E-EOP	2/20/2021 11:30	ZI8655	M	C111165	3.25	0.00092	4.46	<0.00002	57.9	0.314	37.9	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0074	<0.0001	<0.003	<0.0005	0.00036	0.14	<0.0001	<0.001	0.08	0.000011	78.5	<0.001	0.00024
RSEM-R6E-EOP	2/21/2021 13:30	ZI8310	M	C111114	3.19	0.00089	4.57	<0.00002	54.4	0.298	35.6	0.00001	<0.005	<0.005	0.00192	<0.005	0.0069	<0.0001	<0.003	<0.0005	0.00036	0.143	<0.0001	<0.001	0.079	0.00001	76.3	<0.001	0.00033
RSEM-R6E-EOP	2/22/2021 15:20	ZJ0342	M	C111442	3.03	0.00082	4.43	<0.00002	50.8	0.284	30.9	<0.00001	<0.005	<0.005	0.00171	<0.005	0.0079	0.00016	<0.003	<0.0005	0.00038	0.128	<0.0001	<0.001	0.077	<0.00001	81.9	<0.001	0.00039
RSEM-R6E-EOP	2/22/2021 15:30	ZJ0343	D	C111442	3.14	0.0008	5.14	<0.00002	51.9	0.289	32.9	<0.00001	<0.005	<0.005	0.00175	<0.005	0.0086	0.00015	<0.003	<0.0005	0.00038	0.129	<0.0001	<0.001	0.079	<0.00001	74.3	<0.001	0.00036
RSEM-R6E-EOP	2/23/2021 14:55	ZJ2756	M	C111785	3.36	0.00081	4.55	<0.00002	50.9	0.302	33.8	<0.00001	<0.005	<0.005	0.00178	<0.005	0.0097	<0.0001	0.0043	<0.0005	0.00038	0.136	<0.0001	<0.001	0.074	<0.00001	73.5	<0.001	0.00045
RSEM-R6E-EOP	2/24/2021 13:50	ZJ5662	M	C112157	3.73	0.00085	4.84	<0.00002	56.7	0.328	38.0	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0082	<0.0001	0.005	<0.0005	0.0004	0.134	<0.0001	<0.001	0.076	0.00002	75.7	<0.001	0.00048
RSEM-R6E-EOP	2/24/2021 14:00	ZJ5663	D	C112157	3.41	0.00079	4.34	<0.00002	52.1	0.307	33.8	<0.00001	<0.005	<0.005	0.00174	<0.005	0.0073	<0.0001	0.0039	<0.0005	0.00039	0.133	<0.0001	<0.001	0.073	0.000017	76.1	<0.001	0.00048
RSEM-R6E-EOP	2/25/2021 12:20	ZJ8555	M	C112624	3.56	0.00087	4.33	<0.00002	51.9	0.356	35.5	<0.00001	<0.005	<0.005	0.00178	<0.005	0.0063	0.00016	0.0054	<0.0005	0.00046	0.124	<0.0001	<0.001	0.074	0.000021	72.6	<0.001	0.00027
RSEM-R6E-EOP	2/28/2021 13:00	ZK2233	M	C113095	4.00	0.00091	3.88	<0.00002	52.3	0.313	32.3	<0.00001	<0.005	<0.005	0.00164	<0.005	0.0108	<0.0001	0.0057	<0.0005	0.00044	0.126	<0.0001	<0.001	0.07	0.000019	73.6	<0.001	0.00042
RSEM-R6E-EOP	3/1/2021 9:50	ZK1994	M	C113051	3.59	0.00083	3.81	<0.00002	50.3	0.303	29.7	<0.00001	<0.005	<0.005	0.00161	<0.005	0.0065	<0.0001	0.0051	<0.0005	0.00041	0.13	<0.0001	<0.001	0.072	0.000014	74.4	<0.001	0.00042
RSEM-R6E-EOP	3/2/2021 15:45	ZK8062	M	C114225	3.61	0.00087	4.2	<0.00002	52.8	0.335	32.7	<0.00001	<0.005	<0.005	0.00173	<0.005	0.0067	0.00013	0.0057	<0.0005	0.00035	0.127	<0.0001	<0.001	0.072	0.000014	73.4	<0.001	0.00039
RSEM-R6E-EOP	3/3/2021 15:30	ZK8060	M	C114224	3.59	0.00083	4.26	<0.00002	51.4	0.327	32.4	<0.00001	<0.005	<0.005	0.00169	<0.005	0.0074	<0.0001	0.0048	<0.0005	0.00036	0.127	<0.0001	<0.001	0.073	0.00002	74.8	<0.001	0.00041
RSEM-R6E-EOP	3/4/2021 14:00	ZL0407	M	C114582	3.68	0.00084	4.4	<0.00002	53.9	0.327	34.6	<0.00001	<0.005	<0.005	0.00169	<0.005	0.0077	<0.0001	0.0051	<0.0005	0.00037	0.132	<0.0001	<0.001	0.072	0.000016	73.6	<0.001	0.00041
RSEM-R6E-EOP	3/5/2021 12:40	ZL0413	M	C114584	3.72	0.00085	4.4	<0.00002	54.3	0.336	33.3	<0.00001	<0.005	<0.005	0.00174	<0.005	0.0075	<0.0001	0.0051	<0.0005	0.00041	0.133	<0.0001	<0.001	0.072	0.000016	72.2	<0.001	0.00042
RSEM-R6E-EOP	3/6/2021 9:30	ZL3535	M	C115040	3.66	0.00079	4.53	<0.00002	49.3	0.33	34.3	0.000015	<0.005	0.0067	0.00151	<0.005	0.0074	0.00088	0.0073	<0.0005	0.00043	0.123	<0.0001	<0.001	0.061	<0.00001	69.2	<0.001	0.00063
RSEM-R6E-EOP	3/7/2021 13:20	ZL3596	M	C115055	2.28	0.00111	4.15	<0.00002	40.5	0.261	38.6	0.000018	<0.005	0.0155	0.00117	<0.005	<0.005	0.00039	0.0084	0.00068	0.00039	0.116	<0.0001	<0.001	<0.05	0.000021	55.6	<0.001	0.0003
RSEM-R6E-EOP	3/8/2021 12:00	ZL3597	M	C115055	2.58	0.00104	3.66	<0.00002	42.8	0.294	40.3	0.000013	<0.005	0.0068	0.00114	<0.005	<0.005	0.00013	0.0086	0.00064	0.00033	0.112	<0.0001	<0.001	<0.05	0.000019	58.3	<0.001	0.00036
RSEM-R6E-EOP	3/9/2021 14:40	ZL6925	M	C115720	2.49	0.0011	3.37	<0.00002	41.1	0.285	42.1	0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.0087	0.00069	0.00038	0.11	<0.0001	<0.001	<0.05	0.00002	58.0	<0.001	0.00031
RSEM-R6E-EOP	3/10/2021 12:45	ZL8187	M	C115987	2.39	0.00105	3.11	<0.00002	41.3	0.264	40.2	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	0.0078	0.00067	0.00037	0.108	<0.0001	<0.001	<0.05	0.000019	58.0	<0.001	0.00028
RSEM-R6E-EOP	3/11/2021 12:50	ZL8465	M	C116050	2.40	0.00105	2.97	<0.00002	41.4	0.267	39.2	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	0.0075	0.00064	0.00039	0.107	<0.0001	<0.001	<0.05	0.000019	58.0	<0.001	0.00026
RSEM-R6E-EOP	3/13/2021 13:50	ZM2421	M	C116756	2.41	0.00099	2.83	<0.00002	39.5	0.273	39.6	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	0.0074	0.00065	0.00034	0.107	<0.0001	<0.001	<0.05	0.000019	59.9	<0.001	0.00022
RSEM-R6E-EOP	3/15/2021 11:40	ZM4113	M	C117045	2.75	0.00101	3.11	<0.00002	42.4	0.297	40.8	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	0.0088	0.00067	0.00039	0.106	<0.0001	<0.001	<0.05	0.000016	59.1	<0.001	0.00036
RSEM-R6E-EOP	3/15/2021 11:50	ZM4114	D	C117045	2.74	0.00101	3.16	<0.00002	42.8	0.3	40.9	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	0.0083	0.00069	0.00036	0.109	<0.0001	<0.001	<0.05	0.000017	58.7	<0.001	0.00036
RSEM-R6E-EOP	3/16/2021 13:30	ZM5656	M	C117434	2.63	0.001	3	<0.00002	40.3	0.295	39.0	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	0.00011	0.0084	0.00064	0.00036	0.101	<0.0001	<0.001	<0.05	0.000019	56.7	<0.001	0.00025
RSEM-R6E-EOP	3/17/2021 14:10	ZM7317	M	C117752	2.63	0.001	2.95	<0.00002	40.6	0.284	38.1	0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	0.00011	0.0086	0.00066	0.0004	0.096	<0.0001	<0.001	<0.05	0.000019	56.4	<0.001	0.00028
RSEM-R6E-EOP	3/17/2021 14:20	ZM7318	D	C117752	2.53	0.001	2.9	<0.00002	39.8	0.287	39.5	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	0.00014	0.0098	0.00064	0.00039	0.096	<0.0001	<0.001	<0.05	0.00002	56.7	<0.001	0.00027
RSEM-R6E-EOP	3/18/2021 12:40	ZM8873	M	C118063	2.86	0.00104	2.91	<0.00002	40.5	0.306	41.0	0.000011	<0.005	<0.005	0.00118	<0.005	<0.005	0.00016	0.0097	0.00061	0.00038	0.09	<0.0001	<0.001	<0.05	0.000019	58.8	<0.001	0.00057
RSEM-R6E-EOP	3/19/2021 13:05	ZM8864	M	C118061	2.92	0.00098	2.82	<0.00002	37.8	0.309	39.8	0.000011	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	0.0116	0.00059	0.00035	0.083	<0.0001	<0.001	<0.05	0.000028	58.2	<0.001	0.00055
RSEM-R6E-EOP	3/19/2021 13:15	ZM8865	D	C118061	2.96	0.00095	2.9	<0.00002	38.1	0.319	38.8	0.000013	<0.005	<0.005	0.00118	<0.005	<0.005	0.0001	0.012	0.00057	0.00034	0.083	<0.0001	<0.001	<0.05	0.000028	58.0	<0.001	0.00055
RSEM-R6E-EOP	3/20/2021 15:35	ZN1534	M	C118497	3.32	0.0009	2.8	<0.00002	36.2	0.334	36.6	0.000011	<0.005	<0.005	0.00115	<0.005	<0.005	0.00014	0.0153	0.00056	0.00034	0.082	<0.0001	<0.001	<0.05	0.000026	59.2	<0.001	0.00077
RSEM-R6E-EOP	3/21/2021 11:45	ZN1581	M	C118513	3.28	0.00091	2.6	<0.00002	36.3	0.33	37.4	0.000011	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	0.0131	0.00058	0.00031	0.081	<0.0001	<0.001	<0.05	0.000027	58.9	<0.001	0.00061
RSEM-R6E-EOP	3/21/2021 11:55	ZN1582	D	C118513	3.30	0.00094	2.68	<0.00002	36.8	0.334	36.4	0.000011	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	0.0134	0.00055	0.00031	0.081	<0.0001	<0.001	<0.05	0.000027	58.8	<0.001	0.00064
RSEM-R6E-EOP	3/22/2021 10:50	ZN1161	M	C118411	3.34	0.00089	2.62	<0.00002	36.4	0.341	37.6	0.000012	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	0.0141	0.00054	0.00031	0.079	<0.0001	<0.001	<0.05	0.000028	57.8	<0.001	0.0006
RSEM-R6E-EOP	3/23/2021 13:10	ZN5253	M	C119350	3.34	0.00083	2.57	<0.00002	36.4	0.338	37.3	0.000012	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	0.0136	0.00053	0.00033	0.078	<0.0001	<0.001	<0.05	0.000027	62.3	<0.001	0.00045
RSEM-R6E-EOP	3/24/2021 11:45	ZN5256	M	C119352	3.44	0.00084	2.56	<0.00002	36.6	0.341	37.3	0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	0.0141	0.00055	0.00033	0.078	<0.0001	<0.001	<0.05	0.000028	61.6	<0.001	0.00046
RSEM-R6E-EOP	3/26/2021 11:50	ZN6315	M	C119607	3.41	0.00079	2.42	<0.00002	36.2	0.333	36.0	0.000014	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001	0.0113	0.00055	0.00029	0.079	<0.0001	<0.001	<0.05	0.000025	57.9	<0.001	0.00033
RSEM-R6E-EOP	3/27/2021 13:30	ZN9494	M	C120087	3.26	0.00074	2.35	<0.00002	35.2	0.332	35.5	0.000011	<0.005	<0.005	0.00114	<0.005	<0.005	0.00015	0.0138	0.00053	0.00032	0.08	<0.0001	<0.001	<0.05	0.000028	59.2	<0.001	0.00051
RSEM-R6E-EOP	3/28/2021 10:50	ZN9521	M	C120093	3.48	0.00076	2.49	<0.00002	36.6	0.364	33.1	0.000011	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	0.0154	0.00051	0.00032	0.08	<0.0001	<0.001	<0.05	0.000031	60.2	<0.001	0.00067
RSEM-R6E-EOP	3/29/2021 10:30	ZN9580	M	C120108	3.68	0.00076	2.47	<0.00002	36.8	0.371	33.8	0.000011	<0.005	<0.005	0.00124	<0.005	<0.005	0.00045	0.0144	0.00051	0.00034	0.08	<0.0001	<0.001	<0.05	0.000033	61.3	<0.001	0.00061
RSEM-R6E-EOP	3/30/2021 13:15	ZO2683	M	C120790	3.67	0.00071	2.26	<0.00002	35.7	0.361	33.3	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	0.0124	0.0005	0.00035	0.082	<0.0001	<0.001	<0.05	0.000029	62.9	<0.001	0.00043
RSEM-R6E-EOP	3/31/2021 16:30	ZO4116	M	C121130	3.65	0.00067	2.18	<0.00002	35.3	0.357	30.3	0.000011	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	0.0139	<0.0005	0.00033	0.08	<0.0001	<0.001	<0.05	0.000032	62.3	<0.001	0.00075
RSEM-R6E-EOP	4/1/2021 11:10	ZO4122	M	C121132	3.88	0.00067	2.21	<0.00002	36.7	0.375	30.5	0.000011	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	0.0155	<0.0005	0.00031	0.08	<0.0001	<0.001	<0.05	0.000034	64.2	<0.001	0.00084
RSEM-R6E-EOP	4/1/2021 11:20	ZO4123	D	C121132	3.74	0.00065	2.17	<0.00002	35.8	0.366	30.0	0.000011	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	0.0153	<0.0005	0.00032	0.081	<0.0001	<0.001	<0.05	0.000035	62.8	<0.001	0.00085
RSEM-R6E-EOP	4/2/2021 12:30	ZO4864	M	C121238	3.19	0.00069	2.19	<0.00002	30.5	0.331	29.0	0.000012	<0.005	<0.005	0.0012	<0.005	0.0058	0.00016	0.0157	<0.0005	0.00035	0.075	<0.0001	<0.001	<0.05	0.000037	58.5	<0.001	0.00092
RSEM-R6E-EOP	4/3/2021 13:00	ZO6449	M	C121575	3.45	0.00064	2.06	<0.00002	33.7	0.332	29.1	0.000013	<0.005	<0.005	0.00116	<0.005	<0.005	0.00021	0.0142	<0.0005	0.00032	0.076	<0.0001	<0.001	<0.05	0.000032	56.6	<0.001	0.00078
RSEM-R6E-EOP	4/4/2021 12:40	ZO6463	M	C121580	3.34	0.00095	2.49	<0.00002	36.5	0.329	32.7	0.000014	<0.005	0.0068	0.00123	<0.005	0.0053	0.00022	0.014	0.00059	0.00039	0.094	<0.0001	<0.001	<0.05	0.000028	54.4	<0.001	0.00086
RSEM-R6E-EOP	4/5/2021 12:30	ZO7516	M	C121801	2.51	0.00246	3.3	<0.00002	51.8	0.269	43.8	0.000014	<0.005	0.0104	0.00135	<0.005	0.0073	0.00032	0.0163	0.00152	0.00073	0.188	<0.0001	<0.001	0.052	0.000033	43.6	0.0011	0.00131
RSEM-R6E-EOP	4/5/2021 12:40	ZO7517	D	C121801	2.50	0.00244	3.23	<0.00002	52.6	0.278	43.5	0.000016	<0.005	0.0141	0.00133	<0.005	0.0076	0.00079	0.0165	0.00147	0.00072	0.187	<0.0001	<0.001	0.052	0.000034	43.8	0.0011	0.0013
RSEM-R6E-EOP	4/6/2021 14:20	ZO9474	M	C122250	2.55	0.00254	2.63	<0.00002	54.4	0.272	44.0	0.000013	<0.005	0.0089	0.00135	<0.005	0.0065	0.00015	0.0165	0.00146	0.00072	0.177	<0.0001	<0.001	0.054	0.000022	43.6	0.0011	0.00096
RSEM-R6E-EOP	4/7/2021 14:30	ZP0880	M	C122580	2.49	0.00241	2.4	<0.00002	54.5	0.259	44.1	<0.00001	<0.005	<0.005	0.00136	<0.005	0.0056	<0.0001	0.015	0.00149	0.00072	0.182	<0.0001	<0.001	<0.05	0.000023	44.5	0.0011	0.00089
RSEM-R6E-EOP	4/8/2021 12:00	ZP1742	M	C122796	2.36	0.00214	2.16	<0.00002	50.6	0.248	42.1	0.00001	<0.005	<0.005	0.00123	<0.005	0.0063	<0.0001	0.015	0.00142	0.00069	0.17	<0.0001	<0.001	0.051	0.00002	41.4	0.0011	0.00074
RSEM-R6E-EOP	4/9/2021 13:20	ZP1764	M	C122801	2.39	0.00212	2.08	<0.00002	50.1	0.248	40.8	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	0.00011	0.0155	0.00136	0.00066	0.166	<0.0001	<0.001	0.05	0.000019	40.8	0.001	0.00065

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	4/10/2021 11:05	ZP3593	M	C123204	2.46	0.00208	1.92	<0.00002	49.9	0.256	41.7	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	0.0144	0.0013	0.00061	0.158	<0.0001	<0.001	<0.05	0.000016	41.2	<0.001	0.00059
RSEM-R6E-EOP	4/11/2021 12:30	ZP3856	M	C123260	2.51	0.00207	1.79	<0.00002	50.8	0.271	41.5	<0.00001	<0.005	<0.005	0.00132	<0.005	0.0052	<0.0001	0.0142	0.00128	0.00057	0.152	<0.0001	<0.001	<0.05	0.000014	41.5	<0.001	0.00049
RSEM-R6E-EOP	4/11/2021 12:40	ZP3857	D	C123260	2.50	0.00208	1.75	<0.00002	49.9	0.257	42.6	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	0.0147	0.0013	0.00056	0.154	<0.0001	<0.001	<0.05	0.000015	40.6	<0.001	0.00049
RSEM-R6E-EOP	4/12/2021 10:40	ZP3853	M	C123259	2.58	0.00196	1.65	<0.00002	49.9	0.265	41.0	<0.00001	<0.005	<0.005	0.00126	<0.005	0.0052	<0.0001	0.0143	0.00128	0.00055	0.15	<0.0001	<0.001	<0.05	0.000013	41.0	<0.001	0.00043
RSEM-R6E-EOP	4/13/2021 11:30	ZP9470	M	C124396	2.53	0.00191	1.26	<0.00002	47.7	0.251	42.1	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.0171	0.00118	0.00058	0.138	<0.0001	<0.001	<0.05	0.000012	39.0	<0.001	0.00033
RSEM-R6E-EOP	4/14/2021 11:00	ZP9473	M	C124397	2.54	0.00187	1.17	<0.00002	46.7	0.246	39.5	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001	0.0143	0.00109	0.00048	0.129	<0.0001	<0.001	<0.05	0.000012	37.9	<0.001	0.0003
RSEM-R6E-EOP	4/15/2021 17:40	ZQ1505	M	C124804	2.18	0.00213	2.8	<0.00002	51.9	0.259	41.1	0.000013	<0.005	0.0053	0.0014	<0.005	<0.005	0.00033	0.0218	0.00114	0.00077	0.289	<0.0001	<0.001	0.053	0.000011	41.2	<0.001	0.00037
RSEM-R6E-EOP	4/16/2021 10:40	ZQ1481	M	C124799	2.02	0.00219	3.14	<0.00002	54.7	0.25	41.8	<0.00001	<0.005	0.0072	0.00141	<0.005	<0.005	0.00025	0.0315	0.00119	0.00088	0.325	<0.0001	<0.001	0.053	0.000013	42.0	<0.001	0.00035
RSEM-R6E-EOP	4/17/2021 11:30	ZQ3724	M	C125158	1.82	0.00198	2.72	<0.00002	50.5	0.234	38.6	<0.00001	<0.005	0.0076	0.00137	<0.005	<0.005	0.00011	0.0308	0.00114	0.00081	0.311	<0.0001	<0.001	0.05	0.00001	40.3	0.0011	0.00028
RSEM-R6E-EOP	4/18/2021 10:45	ZQ3727	M	C125158	1.89	0.00199	2.61	<0.00002	51.9	0.236	39.2	<0.00001	<0.005	0.0051	0.00135	<0.005	<0.005	0.00012	0.0297	0.0011	0.00078	0.296	<0.0001	<0.001	0.051	<0.00001	40.1	<0.001	0.00022
RSEM-R6E-EOP	4/19/2021 12:15	ZQ5794	M	C125554	2.01	0.00192	2.32	<0.00002	52.9	0.241	40.4	<0.00001	<0.005	<0.005	0.00138	<0.005	0.0054	0.00016	0.023	0.00109	0.00078	0.294	<0.0001	<0.001	<0.05	<0.00001	39.8	<0.001	<0.0002
RSEM-R6E-EOP	4/20/2021 10:45	ZQ9980	M	C126323	2.05	0.00196	2.29	<0.00002	51.6	0.257	37.1	<0.00001	<0.005	0.0056	0.00154	<0.005	<0.005	0.00071	0.0235	0.00112	0.00077	0.285	<0.0001	<0.001	0.052	<0.00001	41.5	<0.001	<0.0002
RSEM-R6E-EOP	4/21/2021 10:30	ZQ9983	M	C126323	2.06	0.00162	1.96	<0.00004	49.5	0.243	35.7	<0.00002	<0.01	<0.01	0.00142	<0.01	<0.01	0.00025	0.0202	0.0011	0.00074	0.276	<0.0001	<0.001	0.053	<0.00001	42.0	<0.001	<0.0002
RSEM-R6E-EOP	4/22/2021 9:45	ZR1312	M	C126529	2.32	0.00174	2.1	<0.00002	55.3	0.272	41.7	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	0.00018	0.0166	0.00107	0.00073	0.272	<0.0001	<0.001	0.055	<0.00001	44.3	<0.001	<0.0002
RSEM-R6E-EOP	4/23/2021 9:45	ZR1315	M	C126529	2.44	0.00174	1.71	<0.00002	57.4	0.287	44.5	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	0.00016	0.0144	0.00106	0.0007	0.278	<0.0001	<0.001	0.056	0.00001	44.5	<0.001	<0.0002
RSEM-R6E-EOP	4/24/2021 3:00	ZR4687	M	C127059	2.13	0.00157	1.78	<0.00002	50.3	0.253	37.3	<0.00001	<0.005	0.0072	0.00142	<0.005	<0.005	0.00038	0.0161	0.00102	0.0007	0.249	<0.0001	<0.001	0.053	<0.00001	43.3	<0.001	<0.0002
RSEM-R6E-EOP	4/25/2021 14:30	ZR4685	M	C127059	2.27	0.00162	1.68	<0.00002	51.2	0.263	37.9	<0.00001	<0.005	0.0083	0.00142	<0.005	<0.005	0.00026	0.0155	0.00101	0.00066	0.245	<0.0001	<0.001	0.054	<0.00001	43.6	<0.001	<0.0002
RSEM-R6E-EOP	4/26/2021 10:45	ZR5704	M	C127281	2.37	0.00162	1.84	<0.00002	51.9	0.28	39.7	<0.00001	<0.005	0.0067	0.00156	<0.005	<0.005	0.00029	0.0135	0.00096	0.00066	0.244	<0.0001	<0.001	0.055	<0.00001	44.1	<0.001	<0.0002
RSEM-R6E-EOP	4/27/2021 15:30	ZR7958	M	C127704	2.59	0.00155	1.7	<0.00002	53.2	0.286	42.1	0.000011	<0.005	0.0081	0.00157	<0.005	<0.005	0.00026	0.0128	0.001	0.00069	0.243	<0.0001	<0.001	0.058	<0.00001	45.6	<0.001	<0.0002
RSEM-R6E-EOP	4/28/2021 12:40	ZS0315	M	C128230	2.48	0.00151	1.37	<0.00002	52.0	0.262	40.9	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	0.00014	0.0139	0.00097	0.00067	0.223	<0.0001	<0.001	0.057	<0.00001	46.2	<0.001	<0.0002
RSEM-R6E-EOP	4/29/2021 10:20	ZS2292	M	C128584	2.48	0.00148	1.8	<0.00002	51.6	0.279	39.1	0.00001	<0.005	0.011	0.00157	<0.005	<0.005	0.00023	0.0123	0.00093	0.00061	0.212	<0.0001	<0.001	0.057	<0.00001	48.4	<0.001	<0.0002
RSEM-R6E-EOP	4/30/2021 11:05	ZS2249	M	C128573	2.56	0.00146	1.8	<0.00002	54.3	0.284	41.5	<0.00001	<0.005	0.0084	0.00155	<0.005	<0.005	0.00054	0.0125	0.00094	0.00059	0.218	<0.0001	<0.001	0.058	<0.00001	43.7	<0.001	<0.0002
RSEM-R6E-EOP	5/3/2021 10:15	ZS6021	M	C129096	2.46	0.00122	1.21	<0.00002	47.7	0.263	37.7	<0.00001	<0.005	0.0068	0.00147	<0.005	<0.005	0.00017	0.0126	0.00085	0.00057	0.201	<0.0001	<0.001	0.057	<0.00001	42.8	<0.001	<0.0002
RSEM-R6E-EOP	5/4/2021 13:30	ZS9945	M	C129944	2.61	0.00126	1.05	<0.00002	49.5	0.282	38.0	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	0.00036	0.012	0.00081	0.00056	0.189	<0.0001	<0.001	0.053	<0.00001	42.8	<0.001	<0.0002
RSEM-R6E-EOP	5/5/2021 12:50	ZT3122	M	C130491	2.59	0.00115	0.954	<0.00002	48.0	0.29	37.9	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	0.00015	0.0136	0.00079	0.00053	0.185	<0.0001	<0.001	0.059	<0.00001	44.6	<0.001	<0.0002
RSEM-R6E-EOP	5/6/2021 15:20	ZT3103	M	C130484	2.74	0.00117	0.881	<0.00002	49.1	0.296	39.9	<0.00001	<0.005	0.0054	0.00148	<0.005	<0.005	0.00035	0.0161	0.00079	0.00056	0.183	<0.0001	<0.001	0.06	0.000011	43.9	<0.001	<0.0002
RSEM-R6E-EOP	5/7/2021 11:20	ZT3093	M	C130477	2.66	0.00106	0.72	<0.00002	47.9	0.295	41.0	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	0.00013	0.0115	0.00082	0.00055	0.186	<0.0001	<0.001	0.06	<0.00001	46.4	<0.001	<0.0002
RSEM-R6E-EOP	5/8/2021 12:50	ZT6586	M	C130995	2.60	0.00105	0.577	<0.00002	45.2	0.284	35.8	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	0.00059	0.0135	0.00077	0.00057	0.17	<0.0001	<0.001	0.056	<0.00001	45.9	<0.001	<0.0002
RSEM-R6E-EOP	5/9/2021 13:20	ZT6966	M	C131057	2.69	0.00108	0.476	<0.00002	45.2	0.312	36.1	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0125	0.00075	0.00053	0.167	<0.0001	<0.001	0.059	<0.00001	46.6	<0.001	<0.0002
RSEM-R6E-EOP	5/10/2021 5:10	ZT6907	M	C131048	2.71	0.00101	0.459	<0.00002	45.0	0.316	36.8	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	0.00017	0.0121	0.00073	0.00053	0.167	<0.0001	<0.001	0.061	<0.00001	45.7	<0.001	<0.0002
RSEM-R6E-EOP	5/11/2021 10:30	ZU0196	M	C131591	2.97	0.00105	0.42	<0.00002	48.4	0.314	37.5	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	0.00034	0.0126	0.0007	0.00053	0.154	<0.0001	<0.001	0.056	<0.00001	47.6	<0.001	<0.0002
RSEM-R6E-EOP	5/11/2021 10:40	ZU0197	D	C131591	2.91	0.00103	0.401	<0.00002	47.8	0.307	37.7	0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0122	0.00069	0.00055	0.159	<0.0001	<0.001	0.058	<0.00001	48.0	<0.001	<0.0002
RSEM-R6E-EOP	5/12/2021 10:50	ZU2124	M	C131927	2.91	0.00109	0.407	<0.00002	45.9	0.296	35.7	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001	0.0154	0.00073	0.00059	0.157	<0.0001	<0.001	0.064	<0.00001	49.9	<0.001	<0.0002
RSEM-R6E-EOP	5/13/2021 10:20	ZU4935	M	C132324	2.96	0.00108	0.387	<0.00002	46.5	0.3	36.2	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	0.0151	0.00068	0.00056	0.141	<0.0001	<0.001	0.092	<0.00001	46.9	<0.001	<0.0002
RSEM-R6E-EOP	5/13/2021 10:30	ZU4936	D	C132324	3.00	0.00109	0.402	<0.00002	46.6	0.302	36.4	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0152	0.00067	0.00058	0.144	<0.0001	<0.001	0.087	<0.00001	47.2	<0.001	<0.0002
RSEM-R6E-EOP	5/14/2021 10:00	ZU4951	M	C132327	3.07	0.00109	0.358	<0.00002	47.9	0.31	37.6	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	0.0141	0.00064	0.00056	0.132	<0.0001	<0.001	0.088	<0.00001	44.9	<0.001	<0.0002
RSEM-R6E-EOP	5/15/2021 15:00	ZU7901	M	C132915	2.87	0.00109	0.273	<0.00002	45.6	0.285	34.4	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	0.0001	0.0927	0.00066	0.00056	0.129	<0.0001	<0.001	0.067	<0.00001	39.4	<0.001	<0.0002
RSEM-R6E-EOP	5/16/2021 14:20	ZU7830	M	C132904	2.98	0.00115	0.278	<0.00002	46.8	0.294	36.8	0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0161	0.00064	0.00053	0.121	<0.0001	<0.001	0.067	<0.00001	37.4	<0.001	<0.0002
RSEM-R6E-EOP	5/17/2021 16:20	ZU9398	M	C133243	2.93	0.00124	0.267	<0.00002	47.4	0.294	36.5	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0144	0.00065	0.00051	0.115	<0.0001	<0.001	0.071	<0.00001	35.8	<0.001	<0.0002
RSEM-R6E-EOP	5/18/2021 16:20	ZV2801	M	C133850	3.03	0.00138	0.214	<0.00002	48.4	0.292	36.0	0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0144	0.00062	0.00049	0.114	<0.0001	<0.001	0.076	<0.00001	34.7	<0.001	<0.0002
RSEM-R6E-EOP	5/19/2021 13:30	ZV3573	M	C134016	3.74	0.00146	0.225	<0.00002	51.5	0.561	39.8	0.000012	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0143	0.00063	0.00049	0.123	<0.0001	<0.001	0.08	<0.00001	46.7	<0.001	<0.0002
RSEM-R6E-EOP	5/19/2021 13:40	ZV3574	D	C134016	3.60	0.00144	0.225	<0.00002	50.4	0.541	37.7	0.000012	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0138	0.00061	0.0005	0.12	<0.0001	<0.001	0.079	<0.00001	45.1	<0.001	<0.0002
RSEM-R6E-EOP	5/20/2021 12:00	ZV5698	M	C134406	4.38	0.00144	0.202	<0.00002	52.0	0.887	37.7	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	0.0135	0.00064	0.00053	0.131	<0.0001	<0.001	0.087	0.000014	58.5	<0.001	<0.0002
RSEM-R6E-EOP	5/21/2021 11:20	ZV5663	M	C134400	4.59	0.00154	0.164	<0.00002	53.7	0.959	38.6	0.000011	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.0125	0.00061	0.00049	0.128	<0.0001	<0.001	0.09	<0.00001	59.2	<0.001	<0.0002
RSEM-R6E-EOP	5/22/2021 11:20	ZV6993	M	C134601	4.60	0.00152	0.139	<0.00002	54.6	0.977	38.9	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	0.0135	0.00064	0.0005	0.131	<0.0001	<0.001	0.096	<0.00001	61.3	<0.001	<0.0002
RSEM-R6E-EOP	5/23/2021 14:40	ZV8626	M	C134923	4.52	0.0015	0.136	<0.00002	52.6	0.949	37.2	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.0208	0.00061	0.00049	0.117	<0.0001	<0.001	0.092	<0.00001	55.4	<0.001	<0.0002
RSEM-R6E-EOP	5/24/2021 12:00	ZW1260	M	C135427	4.48	0.00137	0.133	<0.00002	51.6	0.974	37.7	0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0143	0.00058	0.0005	0.116	<0.0001	<0.001	0.094	<0.00001	53.7	<0.001	<0.0002
RSEM-R6E-EOP	5/25/2021 9:50	ZW1242	M	C135423	4.63	0.00139	0.127	<0.00002	52.7	1.02	38.8	0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	0.0117	0.00055	0.00054	0.114	<0.0001	<0.001	0.096	<0.00001	53.4	<0.001	<0.0002
RSEM-R6E-EOP	5/26/2021 12:10	ZW4841	M	C136104	7.20	0.00132	0.399	<0.00002	55.5	1.98	41.1	0.000022	<0.005	<0.005	0.00153	<0.005	<0.005	0.00019	0.0102	0.00055	0.00052	0.149	<0.0001	<0.001	0.119	<0.00001	106	<0.001	<0.0002
RSEM-R6E-EOP	5/27/2021 11:30	ZW4834	M	C136103	8.59	0.00168	0.597	<0.00002	60.0	2.42	43.2	0.000025	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.012	0.00057	0.00049	0.142	<0.0001	<0.001	0.126	0.000012	124	<0.001	0.00025
RSEM-R6E-EOP	5/28/2021 13:15	ZW4300	M	C136040	8.40	0.0015	0.434	<0.00002	57.8	2.29	45.0	0.000019	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0142	0.00055	0.0005	0.146	<0.0001	<0.001	0.128	0.000024	124	<0.001	0.00021
RSEM-R6E-EOP	5/29/2021 11:20	ZW9127	M	C136816	8.19	0.00148	0.301	<0.00002	57.8	2.29	46.1	0.000024	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	0.0105	0.00054	0.00048	0.143	<0.0001	<0.001	0.121	<0.00001	123	<0.001	<0.0002
RSEM-R6E-EOP	5/30/2021 10:30	ZW9154	M	C136825	7.77	0.00139	0.157	<0.00002	56.9	2.17	45.2	0.000019	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0113	0.00053	0.00048	0.141	<0.0001	<0.001	0.122	<0.00001	115	<0.001	<0.0002
RSEM-R6E-EOP	5/31/2021 6:00	ZW9167	M	C136832	7.63	0.00144	0.124	<0.00002	57.8	2.11	45.1	0.000018	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	0.0095	0.00054	0.00048	0.138	<0.0001	<0.001	0.121	<0.00001	110	<0.001	<0.0002
RSEM-R6E-EOP	6/5/2021 10:40	ZY0220	M	C138844	6.92	0.00123	0.106	<0.00002	61.2	1.75	45.0	0.000022	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.0124	0.00051	0.0005	0.119	<0.0001	<0.001	0.117	<0.00001	81.2	<0.001	<0.0002
RSEM-R6E-EOP	6/5/2021 10:50	ZY0221	D	C138844	6.86	0.00123	<0.1	<0.00002	60.6	1.78	45.9	0.000019	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0118	<0.0005	0.00051	0.117	<0.0001	<0.001	0.119	<0.00001	79.7	<0.001	<0.0002
RSEM-R6E-EOP	6/6/2021 10:40	ZY0252	M	C138850	6.65	0.00119	<0.1	<0.00002	60.7	1.73	45.4	0.000021	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0099	<0.0005	0.00048	0.12	<0.0001	<0.001	0.12	0.00001	86.4	<0.001	<0.0002
RSEM-R6E-EOP	6/7/2021 10:50	ZY3087	M	C139476	6.44	0.00136	<0.1	<0.00002	62.2	1.61	47.7	0.000019	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	0.0096	0.00051	0.00049	0.114	<0.0001	<0.001	0.109	<0.00001	83.3	<0.001	<0.0002
RSEM-R6E-EOP	6/7/2021 11:00	ZY3088	D	C139476	6.53	0.00135	<0.1	<0.00002	62.2	1.66	47.2	0.000019	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.0092	<0.0005	0.00048	0.115	<0.0001	<0.001	0.113	<0.00001	80.3	<0.001	<0.0002
RSEM-R6E-EOP	6/8/2021 11:30	ZY5038	M	C139835	6.18	0.00153	0.12	<0.00002	61.5	1.5	48.8	0.000016	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	0.0086	0.0005	0.00049	0.109	<0.0001	<0.001	0.12	<0.00001	78.5	<0.001	<0.0002
RSEM-R6E-EOP	6/9/2021 13:30	ZY6852	M	C140198	6.19	0.00165	0.106	<0.00002	62.3	1.43	50.1	0.000017	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	0.0093	0.00052	0.00051	0.107	<0.0001	<0.001	0.131	<0.00001	73.8	<0.001	<0.0002
RSEM-R6E-EOP	6/9/2021 13:40	ZY6853	D	C140198	5.94	0.00162	0.107	<0.00002	59.8	1.39	48.2	0.000017	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.0092	0.00052	0.00049	0.107	<0.0001	<0.001	0.131	<0.00001	75.7	<0.001	<0.0002
RSEM-R6E-EOP	6/10/2021 11:45	ZY8799	M	C140527	5.80	0.00188	<0.1	<0.00002	60.3	1.44	50.0	0.000016	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	0.0092	0.00056	0.0005	0.107	<0.0001	<0.001	0.113	<0.00001	73.6	<0.001	<0.0002
RSEM-R6E-EOP	6/11/2021 14:00	ZY9642	M	C140675	6.13	0.00194	<0.1	<0.00002	64.5	1.45	51.9	0.000015	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001	0.0099	0.00056	0.00051	0.106	<0.0001	<0.001	0.111	<0.00001	73.9	<0.001	<0.0002
RSEM-R6E-EOP	6/11/2021 14:10	ZY9643	D	C140675	5.85	0.00186	<0.1	<0.00002	61.6	1.43	51.0	0.000013	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	0.0101	0.00052	0.00052	0.105	<0.0001	<0.001	0.115	<0.00001	72.5	<0.001	<0.0002
RSEM-R6E-EOP	6/15/2021 11:20	AAB013	M	C142607	5.83	0.00168	<0.1	<0.00002	62.5	1.3	51.5	0.000015	<0.005	<0.005	0.00192	<0.005	<0.005	<0.0001	0.0099	0.00051	0.00053	0.098	<0.0001	<0.001	0.126	<0.00001	69.4	<0.001	<0.0002
RSEM-R6E-EOP	6/16/2021 12:00	AAB002	M	C142604	5.45	0.00155	<0.1	<0.00002	59.3	1.19	50.7	0.000012	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	0.0096	<0.0005	0.00051	0.094	<0.0001	<0.001	0.125	<0.00001	68.0	<0.001	<0.0002
RSEM-R6E-EOP	6/17/2021 11:00	AAC467	M	C142866	6.92	0.00267	0.385	<0.00002	58.3	0.869	31.1	0.000014	<0.005	<0.005	0.00207	<0.005	<0.005	0.00016	0.0082	<0.0005	0.00042	0.08	<0.0001	<0.001	0.131	<0.00001	80.0	<0.001	<0.0002
RSEM-R6E-EOP	6/18/2021 12:00	AAC475	M	C142867	7.13	0.00309	0.435	<0.00002	56.3	0.838	35.4	0.000015	<0.005	<0.005	0.00206	<0.005	<0.005	0.00018	0.0096	<0.0005	0.00039	0.079	<0.0001	<0.001	0.13	<0.00001	79.9	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	6/19/2021 11:00	AAF584	M	C143352	5.81	0.00323	0.274	<0.00002	54.2	1.08	31.6	0.000011	<0.005	<0.005	0.00187	<0.005	<0.005	0.00017	0.0097	<0.0005	0.00041	0.083	<0.0001	<0.001	0.128	<0.00001	77.4	<0.001	<0.0002
RSEM-R6E-EOP	6/20/2021 10:00	AAF489	M	C143330	7.65	0.00249	0.168	<0.00002	61.5	0.834	47.8	0.000018	<0.005	<0.005	0.00219	<0.005	<0.005	0.00056	0.0103	<0.0005	0.00044	0.074	<0.0001	<0.001	0.127	<0.00001	75.1	<0.001	<0.0002
RSEM-R6E-EOP	6/21/2021 5:40	AAF560	M	C143340	7.48	0.00252	0.1	<0.00002	59.7	1.71	46.5	0.000013	<0.005	<0.005	0.00207	<0.005	<0.005	0.00047	0.0095	<0.0005	0.00043	0.073	<0.0001	<0.001	0.127	<0.00001	72.5	<0.001	<0.0002
RSEM-R6E-EOP	7/17/2021 15:40	ACC247	M	C151542	6.15	0.00079	1.28	<0.00002	56.2	0.768	34.5	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0105	<0.0005	0.00143	0.124	<0.0001	<0.001	0.113	<0.00001	59.9	<0.001	<0.0002
RSEM-R6E-EOP	7/18/2021 13:30	ACC415	M	C151549	6.25	0.00081	1.62	<0.00002	56.6	0.759	31.2	<0.00001	<0.005	<0.005	0.00131	<0.005	0.0071	<0.0001	0.0108	<0.0005	0.00104	0.12	<0.0001	<0.001	0.111	<0.00001	63.6	<0.001	<0.0002
RSEM-R6E-EOP	7/19/2021 15:15	ACF036	M	C151946	6.94	0.00068	1.59	<0.00002	55.3	0.911	58.3	0.000013	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.0121	<0.0005	0.001	0.108	<0.0001	<0.001	0.106	<0.00001	57.3	<0.001	<0.0002
RSEM-R6E-EOP	7/20/2021 14:30	ACH813	M	C152456	7.65	0.00095	1.7	<0.00002	69.3	0.787	57.6	<0.00001	<0.005	<0.005	0.00147	<0.005	0.0171	<0.0001	0.0075	<0.0005	0.00079	0.1	<0.0001	<0.001	0.156	<0.00001	56.0	<0.001	<0.0002
RSEM-R6E-EOP	7/20/2021 14:40	ACH814	D	C152456	7.74	0.00091	1.68	<0.00002	68.2	0.833	56.7	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0084	<0.0005	0.00081	0.098	<0.0001	<0.001	0.157	<0.00001	56.7	<0.001	<0.0002
RSEM-R6E-EOP	7/21/2021 15:40	ACH932	M	C152481	6.85	0.00075	1.76	<0.00002	51.4	0.764	30.9	0.000012	<0.005	<0.005	0.00136	<0.005	0.0052	<0.0001	0.0103	<0.0005	0.00076	0.09	<0.0001	<0.001	0.157	<0.00001	59.5	<0.001	<0.0002
RSEM-R6E-EOP	7/22/2021 17:15	ACL553	M	C152988	6.54	0.00126	2.06	<0.00002	36.8	1	65.9	0.000023	<0.005	<0.005	0.00227	<0.005	<0.005	<0.0001	0.0264	<0.0005	0.00048	0.078	<0.0001	<0.001	0.133	0.000026	138	<0.001	0.00044
RSEM-R6E-EOP	7/23/2021 11:30	ACL699	M	C153012	6.34	0.00117	2.03	<0.00002	36.0	0.93	60.6	0.000019	<0.005	<0.005	0.00209	<0.005	<0.005	<0.0001	0.0231	<0.0005	0.00049	0.077	<0.0001	<0.001	0.123	0.000014	130	<0.001	<0.0002
RSEM-R6E-EOP	7/23/2021 11:40	ACL700	D	C153012	6.26	0.00115	2.04	<0.00002	35.7	0.928	57.7	0.000018	<0.005	<0.005	0.00209	<0.005	<0.005	<0.0001	0.0162	<0.0005	0.00048	0.076	<0.0001	<0.001	0.123	0.000016	128	<0.001	<0.0002
RSEM-R6E-EOP	7/24/2021 14:40	ACO406	M	C153513	6.58	0.00131	2.07	<0.00002	45.3	1.02	81.1	0.000019	<0.005	<0.005	0.00213	<0.005	<0.005	<0.0001	0.0219	<0.0005	0.00047	0.076	<0.0001	<0.001	0.124	<0.00001	119	<0.001	<0.0002
RSEM-R6E-EOP	7/25/2021 13:50	ACO188	M	C153467	6.36	0.00099	1.82	<0.00002	41.2	0.914	48.3	0.000016	<0.005	<0.005	0.00202	<0.005	0.0055	0.00015	0.0184	<0.0005	0.00047	0.072	<0.0001	<0.001	0.122	<0.00001	115	<0.001	<0.0002
RSEM-R6E-EOP	7/25/2021 14:00	ACO189	D	C153467	6.71	0.00094	1.83	<0.00002	42.2	0.947	73.5	0.000022	<0.005	<0.005	0.00209	<0.005	<0.005	<0.0001	0.0185	<0.0005	0.00053	0.075	<0.0001	<0.001	0.13	<0.00001	116	<0.001	<0.0002
RSEM-R6E-EOP	7/26/2021 10:35	ACN520	M	C153324	6.14	0.00106	1.67	<0.00002	52.8	0.872	54.6	0.000017	<0.005	<0.005	0.00192	<0.005	<0.005	0.00011	0.013	0.00112	0.0006	0.082	<0.0001	<0.001	0.099	<0.00001	110	<0.001	<0.0002
RSEM-R6E-EOP	7/27/2021 11:00	ACT043	M	C154246	6.62	0.00128	1.65	<0.00002	46.9	0.995	82.4	0.000017	<0.005	<0.005	0.00209	<0.005	0.0051	<0.0001	0.0128	<0.0005	0.00048	0.065	<0.0001	<0.001	0.157	<0.00001	106	<0.001	<0.0002
RSEM-R6E-EOP	7/28/2021 12:00	ACV589	M	C154699	6.63	0.00111	1.33	<0.00002	46.6	0.979	79.4	0.000016	<0.005	<0.005	0.00203	<0.005	0.032	<0.0001	0.0127	0.00051	0.00063	0.071	<0.0001	<0.001	0.114	<0.00001	101	<0.001	<0.0002
RSEM-R6E-EOP	8/2/2021 5:20	ADC744	M	C155936	6.54	0.00129	0.786	<0.00002	50.6	0.837	75.1	0.000015	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	0.012	0.00051	0.00075	0.068	<0.0001	<0.001	0.111	<0.00001	87.2	<0.001	<0.0002
RSEM-R6E-EOP	8/5/2021 10:45	ADK133	M	C157133	6.90	0.00108	0.608	<0.00002	54.5	0.804	73.4	0.000014	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0127	<0.0005	0.00086	0.065	<0.0001	<0.001	0.127	<0.00001	77.0	<0.001	<0.0002
RSEM-R6E-EOP	8/5/2021 10:55	ADK134	D	C157133	7.34	0.00117	0.636	<0.00002	57.5	0.859	76.7	0.000018	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001	0.0128	<0.0005	0.00088	0.065	<0.0001	<0.001	0.133	<0.00001	76.2	<0.001	<0.0002
RSEM-R6E-EOP	8/6/2021 11:40	ADK122	M	C157131	8.74	0.00093	1.04	<0.00002	49.9	1.33	56.0	0.000022	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.0146	0.00056	0.00116	0.095	<0.0001	<0.001	0.145	0.000024	120	0.0015	0.00034
RSEM-R6E-EOP	8/7/2021 11:35	ADM457	M	C157545	12.6	0.00141	1.39	<0.00002	60.5	2.71	74.1	0.000041	<0.005	<0.005	0.00199	<0.005	0.0086	<0.0001	0.022	<0.0025	0.00071	0.105	<0.0005	<0.005	<0.25	<0.00005	145	<0.005	<0.001
RSEM-R6E-EOP	8/8/2021 12:20	ADN227	M	C157651	9.67	0.0012	1.59	<0.0001	45.5	1.88	58	<0.00005	<0.025	<0.025	0.00163	<0.025	<0.025	<0.0005	0.0179	<0.0005	0.00066	0.105	<0.0001	<0.001	0.128	<0.00001	139	0.0013	<0.0002
RSEM-R6E-EOP	8/8/2021 12:30	ADN228	D	C157651	9.74	0.00117	1.61	<0.00002	43.1	1.84	52.2	0.000029	<0.005	<0.005	0.0017	<0.005	0.0076	<0.0001	0.0172	<0.0005	0.00068	0.102	<0.0001	<0.001	0.129	<0.00001	137	0.0013	<0.0002
RSEM-R6E-EOP	8/9/2021 11:45	ADM367	M	C157523	10.1	0.00125	1.79	<0.00002	50.8	2.11	62.2	0.000036	<0.005	<0.005	0.0017	<0.005	0.0104	<0.0001	0.0201	<0.0005	0.0007	0.111	<0.0001	<0.001	0.141	0.000012	125	0.0015	<0.0002
RSEM-R6E-EOP	8/10/2021 10:40	ADP899	M	C158211	8.32	0.001	1.66	<0.00002	37.5	1.59	40.2	0.000027	<0.005	<0.005	0.00158	<0.005	0.0078	<0.0001	0.0158	<0.0005	0.00061	0.102	<0.0001	<0.001	0.127	<0.00001	127	0.0012	<0.0002
RSEM-R6E-EOP	8/11/2021 12:30	ADR988	M	C158615	8.26	0.00102	1.71	<0.00002	38.4	1.51	48.1	0.000024	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0153	<0.0005	0.00059	0.101	<0.0001	<0.001	0.118	<0.00001	115	0.0013	<0.0002
RSEM-R6E-EOP	8/12/2021 11:30	ADU538	M	C159104	7.83	0.00094	1.58	<0.00002	36.3	1.36	36.1	0.000023	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	0.0162	0.00052	0.00072	0.116	<0.0001	<0.001	0.131	<0.00001	114	0.0015	<0.0002
RSEM-R6E-EOP	8/13/2021 10:40	ADU545	M	C159105	8.22	0.00096	1.5	<0.00002	44.7	1.6	57.2	0.000019	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	0.0161	0.00053	0.00067	0.111	<0.0001	<0.001	0.133	<0.00001	107	0.0015	<0.0002
RSEM-R6E-EOP	8/14/2021 11:00	ADW200	M	C159435	7.54	0.00102	1.62	<0.00002	42.5	1.44	53.1	0.000017	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	0.0163	<0.0005	0.0006	0.099	<0.0001	<0.001	0.114	<0.00001	91.2	0.0016	<0.0002
RSEM-R6E-EOP	8/15/2021 11:20	ADW427	M	C159489	7.53	0.0009	1.78	<0.00002	45.1	1.32	54.6	0.000017	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	0.0155	<0.0005	0.00062	0.093	<0.0001	<0.001	0.105	<0.00001	82.5	0.0014	<0.0002
RSEM-R6E-EOP	8/16/2021 11:20	ADY262	M	C159861	6.70	0.00078	1.87	<0.00002	40.0	1.14	51.8	0.00002	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0133	<0.0005	0.00059	0.092	<0.0001	<0.001	0.137	<0.00001	77.5	0.0011	<0.0002
RSEM-R6E-EOP	8/17/2021 11:30	AED545	M	C160795	6.15	0.00073	1.94	<0.00002	40.2	0.897	48.4	0.000019	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	0.0133	<0.0005	0.00066	0.094	<0.0001	<0.001	0.108	<0.00001	74.5	0.001	<0.0002
RSEM-R6E-EOP	8/18/2021 11:00	AED516	M	C160793	5.55	0.00121	2.11	<0.00002	38.6	0.785	46.5	0.000017	<0.005	<0.005	0.0013	<0.005	0.0053	<0.0001	0.0127	<0.0005	0.00061	0.092	<0.0001	<0.001	0.108	<0.00001	68.4	<0.001	<0.0002
RSEM-R6E-EOP	8/19/2021 13:40	AEF597	M	C161077	4.60	0.00102	1.98	<0.00002	29.1	0.669	21.0	0.000013	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	0.0125	<0.0005	0.00054	0.091	<0.0001	<0.001	0.09	<0.00001	63.8	<0.001	<0.0002
RSEM-R6E-EOP	8/20/2021 10:00	AEF522	M	C161059	5.20	0.00084	2.09	<0.00002	37.5	0.709	43.2	0.000019	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0114	<0.0005	0.00068	0.093	<0.0001	<0.001	0.103	<0.00001	64.9	<0.001	<0.0002
RSEM-R6E-EOP	8/21/2021 10:40	AEI348	M	C161420	4.42	0.00067	1.95	<0.00002	28.9	0.616	38.3	0.000016	<0.005	<0.005	0.00125	<0.005	0.0171	<0.0001	0.0123	<0.0005	0.00058	0.094	<0.0001	<0.001	0.097	<0.00001	61.8	<0.001	<0.0002
RSEM-R6E-EOP	8/22/2021 12:00	AEI410	M	C161433	6.27	0.00101	1.8	<0.00002	26.4	1.62	73.4	0.000024	<0.005	<0.005	0.00242	<0.005	<0.005	<0.0001	0.0323	<0.0005	0.00038	0.107	<0.0001	<0.001	0.087	0.000076	150	<0.001	0.00189
RSEM-R6E-EOP	8/23/2021 11:00	AEL590	M	C161925	7.71	0.00088	2.2	<0.00002	29.4	1.92	64.0	0.000028	<0.005	<0.005	0.00229	<0.005	<0.005	<0.0001	0.0317	<0.0005	0.00022	0.109	<0.0001	<0.001	0.124	0.000043	150	<0.001	0.00178
RSEM-R6E-EOP	8/24/2021 16:55	AEN129	M	C162291	7.42	0.00103	2.32	<0.00002	31.0	1.83	66.2	0.000022	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001	0.0393	0.00051	0.0004	0.112	<0.0001	<0.001	0.101	0.000074	149	<0.001	0.00201
RSEM-R6E-EOP	8/25/2021 16:35	AEP240	M	C162703	6.84	0.00087	2.33	<0.00002	27.7	1.51	53.5	0.000024	<0.005	<0.005	0.00234	<0.005	0.0054	<0.0001	0.0426	<0.0005	0.00031	0.105	<0.0001	<0.001	0.067	0.00004	128	<0.001	0.00158
RSEM-R6E-EOP	8/26/2021 10:10	AER552	M	C163145	6.39	0.00099	2.48	<0.00002	29.1	1.42	54.9	0.000024	<0.005	<0.005	0.00235	<0.005	<0.005	<0.0001	0.0443	<0.0005	0.00034	0.114	<0.0001	<0.001	0.069	0.000032	130	<0.001	0.00106
RSEM-R6E-EOP	8/26/2021 10:20	AER553	D	C163145	6.38	0.00099	2.45	<0.00002	29.0	1.3	54.7	0.000031	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001	0.0439	<0.0005	0.00031	0.115	<0.0001	<0.001	0.064	0.000037	127	<0.001	0.00099
RSEM-R6E-EOP	8/27/2021 10:15	AER546	M	C163144	6.19	0.00092	2.48	<0.00002	27.5	1.36	53.0	0.000021	<0.005	<0.005	0.00228	<0.005	<0.005	<0.0001	0.0446	<0.0005	0.00038	0.114	<0.0001	<0.001	0.076	0.000021	115	<0.001	0.00054
RSEM-R6E-EOP	8/28/2021 10:50	AEV122	M	C163811	5.05	0.00092	2.39	<0.00002	26.9	0.953	44.4	0.000019	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.045	<0.0005	0.0003	0.1	<0.0001	<0.001	0.088	<0.00001	106	0.0015	0.00035
RSEM-R6E-EOP	8/28/2021 11:00	AEV123	D	C163811	4.86	0.00094	2.3	<0.00002	25.5	0.92	38.0	0.000016	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	0.0459	<0.0005	0.0003	0.102	<0.0001	<0.001	0.087	0.000014	105	0.0016	0.00036
RSEM-R6E-EOP	8/29/2021 9:55	AEV010	M	C163786	5.48	0.00103	2.59	<0.00002	27.9	0.965	49.6	0.000018	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001	0.0453	<0.0005	0.00037	0.115	<0.0001	<0.001	0.062	0.000011	101	0.0018	0.00024
RSEM-R6E-EOP	8/30/2021 9:55	AEX827	M	C164176	4.58	0.00088	2.46	<0.00002	26.3	0.757	34.7	0.000014	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	0.0423	<0.0005	0.00033	0.1	<0.0001	<0.001	0.092	<0.00001	97.1	0.0015	<0.0002
RSEM-R6E-EOP	8/30/2021 10:05	AEX828	D	C164176	4.66	0.00088	2.45	<0.00002	27.0	0.765	38.3	0.000016	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0413	<0.0005	0.00031	0.1	<0.0001	<0.001	0.089	<0.00001	96.6	0.0014	<0.0002
RSEM-R6E-EOP	8/31/2021 16:35	AFA831	M	C164798	4.54	0.00111	2.6	<0.00002	29.3	0.66	39.0	0.000015	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.0421	<0.0005	0.00032	0.095	<0.0001	<0.001	0.094	<0.00001	90.1	0.0013	<0.0002
RSEM-R6E-EOP	9/1/2021 15:30	AFC990	M	C165103	4.53	0.00118	2.71	<0.00002	32.1	0.677	47.6	0.000013	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0404	<0.0005	0.00032	0.095	<0.0001	<0.001	0.09	<0.00001	84.9	0.0014	<0.0002
RSEM-R6E-EOP	9/1/2021 15:40	AFC991	D	C165103	4.68	0.00119	2.73	<0.00002	30.9	0.663	39.8	0.000015	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.0401	<0.0005	0.00031	0.096	<0.0001	<0.001	0.091	<0.00001	85.9	0.0014	<0.0002
RSEM-R6E-EOP	9/2/2021 11:10	AFF606	M	C165563	4.40	0.00105	2.63	<0.00002	30.5	0.623	38.0	0.000012	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0357	<0.0005	0.00031	0.094	<0.0001	<0.001	0.082	<0.00001	84.5	0.0015	<0.0002
RSEM-R6E-EOP	9/3/2021 11:05	AFF864	M	C165588	4.46	0.00084	2.63	<0.00002	27.7	0.531	48.4	0.000012	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	0.041	<0.0005	0.00039	0.103	<0.0001	<0.001	0.084	<0.00001	77.4	0.0016	<0.0002
RSEM-R6E-EOP	9/3/2021 11:15	AFF865	D	C165588	4.45	0.00081	2.56	<0.00002	27.5	0.522	49.4	0.000016	<0.005	<0.005	0.00149	<0.005	0.0134	<0.0001	0.0411	<0.0005	0.00036	0.104	<0.0001	<0.001	0.086	<0.00001	77.8	0.0017	<0.0002
RSEM-R6E-EOP	9/4/2021 16:10	AFH288	M	C165785	4.39	0.00073	3.33	<0.00002	31.1	0.541	52.4	0.000014	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	0.0434	<0.0005	0.00038	0.102	<0.0001	<0.001	0.077	<0.00001	72.1	0.0013	<0.0002
RSEM-R6E-EOP	9/5/2021 13:50	AFI819	M	C166081	3.88	0.00082	2.66	<0.00002	26.4	0.455	47.3	0.000012	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.0375	<0.0005	0.0003	0.093	<0.0001	<0.001	0.079	<0.00001	72.4	0.0013	<0.0002
RSEM-R6E-EOP	9/5/2021 14:00	AFI820	D	C166081	3.74	0.00072	2.6	<0.00002	26.7	0.456	44.5	0.000016	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0389	<0.0005	0.0003	0.096	<0.0001	<0.001	0.085	<0.00001	71.5	0.0014	<0.0002
RSEM-R6E-EOP	9/6/2021 12:15	AFI718	M	C166063	4.05	0.0008	2.73	<0.00002	28.0	0.449	46.5	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0406	<0.0005	0.0003	0.091	<0.0001	<0.001	0.081	<0.00001	70.4	0.0013	<0.0002
RSEM-R6E-EOP	9/7/2021 11:20	AFL344	M	C166557	4.02	0.00063	2.73	<0.00002	28.1	0.44	46.5	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0365	<0.0005	0.0003	0.09	<0.0001	<0.001	0.077	<0.00001	66.7	0.0015	<0.0002
RSEM-R6E-EOP	9/8/2021 10:50	AFO056	M	C167059	3.91	0.00098	2.68	<0.00002	28.7	0.399	45.2	0.000011	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	0.0364	<0.0005	0.00033	0.106	<0.0001	<0.001	0.071	<0.00001	65.8	0.0014	<0.0002
RSEM-R6E-EOP	9/9/2021 11:20	AFQ844	M	C167445	3.62	0.00096	2.69	<0.00002	30.9	0.401	45.9	0.000011	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0339	<0.0005	0.00035	0.106	<0.0001	<0.001	0.073	<0.00001	67.3	0.0011	<0.0002
RSEM-R6E-EOP	9/10/2021 9:50	AFQ880	M	C167449	3.70	0.00087	2.57	<0.00002	31.7	0.407	47.3	0.000011	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.0294	<0.0005	0.00038	0.094	<0.0001	<0.001	0.067	<0.00001	60.3	0.0012	<0.0002
RSEM-R6E-EOP	9/11/2021 12:00	AFV352	M	C168029	3.72	0.00126	2.47	<0.00002	31.8	0.438	47.5	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	0.0311	<0.0005	0.00035	0.094	<0.0001	<0.001	0.067	<0.00001	59.3	0.0011	<0.0002
RSEM-R6E-EOP	9/12/2021 13:00	AFV416	M	C168037	3.63	0.00075	2.35	<0.00002	32.0	0.429	48.3	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	0.0284	<0.0005	0.00042	0.088	<0.0001	<0.001	0.075	<0.00001	55.9	<0.001	<0.0002
RSEM-R6E-EOP	9/13/2021 5:00	AFV243	M	C168020	3.80	0.00083	2.42	<0.00002	34.2	0.449	49.4	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	0.0269	<0.0005	0.00037	0.09	<0.0001	<0.001	0.076	<0.00001	56.7	<0.001	<0.0002
RSEM-R6E-EOP	9/14/2021 16:30	AGB015	M	C169017	3.61	0.00074	2.15	<0.00002	34.5	0.413	47.1	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	0.0281	<0.0005	0.0004	0.09	<0.0001	<0.001	0.07	<0.00001	60.0	<0.001	<0.0002
RSEM-R6E-EOP	9/15/2021 10:20	AGD164	M	C169361	3.63	0.00077	2.2	<0.00002	35.3	0.423	47.1	<0.00001	<0.005	<0.005	0.00178	<0.005	0.0137	<0.0001	0.0268	<0.0005	0.00036	0.092	<0.0001	<0.001	0.087	<0.00001	61.9	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	9/16/2021 12:35	AGG327	M	C169805	3.76	0.00094	2.3	<0.00002	37.4	0.465	55.4	<0.00001	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	0.0266	<0.0005	0.00037	0.093	<0.0001	<0.001	0.085	<0.00001	64.8	<0.001	<0.0002
RSEM-R6E-EOP	9/16/2021 12:45	AGG328	D	C169805	3.63	0.00072	2.24	<0.00002	36.5	0.433	49.9	<0.00001	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	0.0269	<0.0005	0.00038	0.094	<0.0001	<0.001	0.102	<0.00001	64.9	0.001	<0.0002
RSEM-R6E-EOP	9/17/2021 10:40	AGG307	M	C169799	3.56	0.00086	2.2	<0.00002	36.4	0.434	55.3	<0.00001	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	0.0242	<0.0005	0.00041	0.094	<0.0001	<0.001	0.089	<0.00001	66.0	<0.001	<0.0002
RSEM-R6E-EOP	9/18/2021 12:00	AGJ632	M	C170329	3.89	0.00066	2.44	<0.00002	38.3	0.463	56.0	<0.00001	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001	0.0258	<0.0005	0.00036	0.099	<0.0001	<0.001	0.078	<0.00001	70.0	<0.001	<0.0002
RSEM-R6E-EOP	9/18/2021 12:10	AGJ633	D	C170329	3.84	0.00075	2.49	<0.00002	39.6	0.441	55.8	<0.00001	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001	0.0257	<0.0005	0.00037	0.099	<0.0001	<0.001	0.081	<0.00001	68.8	<0.001	<0.0002
RSEM-R6E-EOP	9/19/2021 11:10	AGJ664	M	C170331	3.85	0.00126	2.53	<0.00002	36.9	0.458	53.9	0.000011	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	0.0254	<0.0005	0.0004	0.102	<0.0001	<0.001	0.093	<0.00001	71.7	<0.001	<0.0002
RSEM-R6E-EOP	9/20/2021 10:20	AGM219	M	C170680	3.96	0.00071	2.64	<0.00002	38.8	0.433	54.3	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.0255	<0.0005	0.00034	0.105	<0.0001	<0.001	0.081	<0.00001	70.8	<0.001	<0.0002
RSEM-R6E-EOP	9/20/2021 10:30	AGM220	D	C170680	3.99	0.00074	2.66	<0.00002	39.2	0.43	54.7	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.0253	<0.0005	0.00035	0.105	<0.0001	<0.001	0.085	<0.00001	71.0	<0.001	<0.0002
RSEM-R6E-EOP	9/21/2021 11:10	AGO663	M	C171134	4.12	0.00083	2.54	<0.00002	39.3	0.445	52.7	0.000017	<0.005	<0.005	0.00189	<0.005	0.0173	<0.0001	0.0265	<0.0005	0.00036	0.107	<0.0001	<0.001	0.083	<0.00001	71.1	<0.001	<0.0002
RSEM-R6E-EOP	9/22/2021 10:45	AGR063	M	C171568	4.12	0.00078	2.55	<0.00002	38.2	0.434	52.1	0.00001	<0.005	<0.005	0.00183	<0.005	0.0071	<0.0001	0.0266	<0.0005	0.00033	0.108	<0.0001	<0.001	0.093	<0.00001	70.7	<0.001	<0.0002
RSEM-R6E-EOP	9/22/2021 10:55	AGR064	D	C171568	4.09	0.00085	2.72	<0.00002	36.6	0.458	52.5	0.000014	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.0258	<0.0005	0.00042	0.108	<0.0001	<0.001	0.09	<0.00001	71.2	<0.001	<0.0002
RSEM-R6E-EOP	9/23/2021 16:25	AGT564	M	C171954	3.95	0.00073	2.6	<0.00002	33.0	0.431	48.3	<0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	0.0264	<0.0005	0.00036	0.104	<0.0001	<0.001	0.087	<0.00001	67.6	0.0012	<0.0002
RSEM-R6E-EOP	9/24/2021 12:45	AGV849	M	C172263	4.09	0.00066	3.34	<0.00002	31.3	0.409	46.7	0.000011	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	0.0261	<0.0005	0.00037	0.109	<0.0001	<0.001	0.074	<0.00001	71.9	0.0018	<0.0002
RSEM-R6E-EOP	9/25/2021 15:45	AGX495	M	C172580	4.19	0.00123	2.9	<0.00002	31.4	0.414	46.5	0.000011	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	0.0237	<0.0005	0.00039	0.108	<0.0001	<0.001	0.065	<0.00001	68.6	0.0021	<0.0002
RSEM-R6E-EOP	9/26/2021 15:10	AGX363	M	C172552	3.69	0.00128	2.91	<0.00002	27.8	0.384	42.0	0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	0.022	<0.0005	0.00041	0.112	<0.0001	<0.001	0.067	<0.00001	69.3	0.0018	<0.0002
RSEM-R6E-EOP	9/26/2021 15:20	AGX364	D	C172552	3.57	0.00118	2.8	<0.00002	26.6	0.369	37.7	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001	0.022	<0.0005	0.00039	0.112	<0.0001	<0.001	0.062	<0.00001	69.0	0.0018	<0.0002
RSEM-R6E-EOP	9/27/2021 11:30	AGZ867	M	C172958	3.68	0.00094	3.14	<0.00002	27.7	0.382	34.2	0.000012	<0.005	<0.005	0.00144	<0.005	<0.005	0.00014	0.025	<0.0005	0.00036	0.131	<0.0001	<0.001	0.06	<0.00001	73.9	0.0023	<0.0002
RSEM-R6E-EOP	9/28/2021 11:00	AHC015	M	C173431	4.15	0.00112	3.28	<0.00002	26.5	0.452	34.3	0.000011	<0.005	<0.005	0.00149	<0.005	<0.005	0.0003	0.0262	<0.0005	0.0004	0.135	<0.0001	<0.001	0.065	<0.00001	84.1	0.0022	0.0002
RSEM-R6E-EOP	9/29/2021 12:00	AHF732	M	C174181	4.03	0.00105	5.56	<0.00002	44.4	0.431	38.8	<0.00001	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	0.022	<0.0005	0.00038	0.136	<0.0001	<0.001	0.069	<0.00001	83.5	0.002	<0.0002
RSEM-R6E-EOP	9/30/2021 11:00	AHF782	M	C174188	3.74	0.00137	5.18	<0.00002	41.8	0.407	39.8	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	0.0315	<0.0005	0.00042	0.139	<0.0001	<0.001	0.074	<0.00001	85.3	0.0013	<0.0002
RSEM-R6E-EOP	10/1/2021 12:00	AHF785	M	C174189	3.50	0.00132	5	<0.00002	41.5	0.393	40.0	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	0.0326	<0.0005	0.00036	0.138	<0.0001	<0.001	0.071	<0.00001	82.6	0.003	<0.0002
RSEM-R6E-EOP	10/2/2021 10:30	AHI562	M	C174687	3.48	0.00142	5.23	<0.00002	45.4	0.406	39.7	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	0.0328	<0.0005	0.00036	0.149	<0.0001	<0.001	0.075	<0.00001	87.2	<0.001	<0.0002
RSEM-R6E-EOP	10/3/2021 12:00	AHI566	M	C174689	3.30	0.00066	4.34	<0.00002	35.5	0.356	36.6	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	0.0288	<0.0005	0.00035	0.137	<0.0001	<0.001	0.064	<0.00001	81.2	<0.001	<0.0002
RSEM-R6E-EOP	10/4/2021 8:00	AHI553	M	C174685	3.42	0.00059	4.91	<0.00002	39.6	0.362	37.3	<0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0287	<0.0005	0.00037	0.139	<0.0001	<0.001	0.063	<0.00001	81.8	<0.001	<0.0002
RSEM-R6E-EOP	10/5/2021 14:20	AHO714	M	C175650	3.20	0.0012	3.35	<0.00002	37.1	0.286	40.9	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	0.0216	<0.0005	0.00031	0.135	<0.0001	<0.001	0.051	<0.00001	83.2	<0.001	<0.0002
RSEM-R6E-EOP	10/5/2021 14:30	AHO715	D	C175650	3.05	0.00092	3.44	<0.00002	23.5	0.291	36.2	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0228	<0.0005	0.00029	0.14	<0.0001	<0.001	0.057	<0.00001	75.0	<0.001	<0.0002
RSEM-R6E-EOP	10/6/2021 11:20	AHR784	M	C176098	3.43	0.00109	3.97	<0.00002	24.4	0.336	25.8	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	0.00011	0.0188	<0.0005	0.00025	0.135	<0.0001	<0.001	<0.05	<0.00001	74.9	0.001	<0.0002
RSEM-R6E-EOP	10/7/2021 17:10	AHU809	M	C176559	3.52	0.00064	4.03	<0.00002	26.3	0.338	25.9	0.000012	<0.005	<0.005	0.00124	<0.005	<0.005	0.00012	0.0174	<0.0005	0.00023	0.139	<0.0001	<0.001	<0.05	<0.00001	73.7	0.0012	<0.0002
RSEM-R6E-EOP	10/7/2021 17:20	AHU810	D	C176559	2.92	0.0008	3.29	<0.00002	22.2	0.291	17.1	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	0.00011	0.0167	<0.0005	0.00027	0.135	<0.0001	<0.001	<0.05	<0.00001	74.8	0.0013	<0.0002
RSEM-R6E-EOP	10/8/2021 10:45	AHU797	M	C176557	3.52	0.00071	3.94	<0.00002	22.6	0.327	23.4	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	0.00013	0.0186	<0.0005	0.00022	0.142	<0.0001	<0.001	<0.05	<0.00001	76.8	0.0014	<0.0002
RSEM-R6E-EOP	10/9/2021 11:40	AHX004	M	C176838	3.41	0.00052	4.35	<0.00002	22.4	0.327	33.9	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	0.0191	<0.0005	0.00027	0.137	<0.0001	<0.001	<0.05	<0.00001	75.1	0.0012	<0.0002
RSEM-R6E-EOP	10/9/2021 11:50	AHX005	D	C176838	3.24	0.00051	4.18	<0.00002	21.8	0.322	32.6	<0.00001	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	0.0194	<0.0005	0.00026	0.139	<0.0001	<0.001	<0.05	<0.00001	75.2	0.0012	<0.0002
RSEM-R6E-EOP	10/10/2021 12:40	AHX000	M	C176837	3.21	0.00049	3.95	<0.00002	20.9	0.298	31.1	0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	0.0183	<0.0005	0.00026	0.137	<0.0001	<0.001	<0.05	<0.00001	74.5	0.0011	<0.0002
RSEM-R6E-EOP	10/11/2021 14:20	AHY659	M	C177084	3.47	0.0007	3.88	<0.00002	22.3	0.321	23.0	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	0.0156	<0.0005	0.00023	0.139	<0.0001	<0.001	<0.05	<0.00001	75.6	0.002	<0.0002
RSEM-R6E-EOP	10/11/2021 14:30	AHY660	D	C177084	3.39	0.00064	3.86	<0.00002	21.6	0.312	21.8	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	0.00012	0.0157	<0.0005	0.00022	0.14	<0.0001	<0.001	<0.05	<0.00001	75.6	0.0019	<0.0002
RSEM-R6E-EOP	10/12/2021 15:50	AIB243	M	C177600	3.08	0.00074	3.08	<0.00002	21.1	0.288	17.3	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	0.00022	0.014	<0.0005	0.0002	0.136	<0.0001	<0.001	<0.05	<0.00001	72.4	0.002	<0.0002
RSEM-R6E-EOP	10/13/2021 11:30	AIE373	M	C178189	2.60	0.00062	2.79	<0.00002	17.3	0.236	8.1	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	0.00013	0.0144	<0.0005	0.00018	0.143	<0.0001	<0.001	<0.05	<0.00001	79.4	0.0018	<0.0002
RSEM-R6E-EOP	10/13/2021 11:40	AIE374	D	C178189	2.60	0.00055	2.73	<0.00002	16.9	0.238	8.0	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	0.0142	<0.0005	0.00019	0.157	<0.0001	<0.001	0.067	<0.00001	77.2	0.0018	<0.0002
RSEM-R6E-EOP	10/14/2021 10:40	AIG808	M	C178651	2.34	0.00061	2.69	<0.00002	16.2	0.228	8.4	0.000011	<0.005	<0.005	0.00119	<0.005	<0.005	0.00012	0.0148	<0.0005	0.00018	0.13	<0.0001	<0.001	0.055	<0.00001	67.0	0.0013	<0.0002
RSEM-R6E-EOP	10/15/2021 11:00	AII740	M	C178993	2.67	0.00046	3.97	<0.00002	18.3	0.294	26.9	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	0.0143	<0.0005	0.00027	0.145	<0.0001	<0.001	<0.05	<0.00001	73.3	0.0011	<0.0002
RSEM-R6E-EOP	10/15/2021 11:10	AII741	D	C178993	2.77	0.00047	3.97	<0.00002	18.5	0.301	27.5	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	0.015	<0.0005	0.00024	0.143	<0.0001	<0.001	<0.05	<0.00001	72.1	0.0012	<0.0002
RSEM-R6E-EOP	10/16/2021 14:20	AIL330	M	C179338	2.11	0.00052	2.62	<0.00002	15.5	0.215	6.3	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.0141	<0.0005	0.0002	0.141	<0.0001	<0.001	<0.05	<0.00001	65.9	<0.001	<0.0002
RSEM-R6E-EOP	10/17/2021 14:10	AIL266	M	C179325	1.94	0.00061	2.67	<0.00002	15.5	0.205	6.2	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	0.00015	0.0132	<0.0005	<0.0001	0.133	<0.0001	<0.001	<0.05	<0.00001	63.5	<0.001	<0.0002
RSEM-R6E-EOP	10/17/2021 14:20	AIL267	D	C179325	1.98	0.00071	2.7	<0.00002	15.7	0.212	6.2	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	0.0001	0.0136	<0.0005	<0.0001	0.132	<0.0001	<0.001	0.059	<0.00001	64.6	<0.001	<0.0002
RSEM-R6E-EOP	10/18/2021 9:55	AIL342	M	C179344	2.00	0.00052	2.68	<0.00002	15.8	0.215	6.4	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	0.0127	<0.0005	0.00021	0.138	<0.0001	<0.001	<0.05	<0.00001	66.7	<0.001	<0.0002
RSEM-R6E-EOP	10/19/2021 12:00	AIR751	M	C180384	2.28	0.00048	3.84	<0.00002	18.4	0.289	26.0	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	0.0121	<0.0005	<0.0001	0.129	<0.0001	<0.001	<0.05	<0.00001	62.6	<0.001	<0.0002
RSEM-R6E-EOP	10/20/2021 12:00	AIT534	M	C180689	2.23	0.00049	3.57	<0.00002	19.4	0.264	25.6	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	0.0134	<0.0005	0.00023	0.138	<0.0001	<0.001	<0.05	<0.00001	64.8	<0.001	<0.0002
RSEM-R6E-EOP	10/21/2021 12:00	AIW012	M	C181069	2.19	0.0005	3.75	<0.00002	19.6	0.269	24.6	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001	0.0118	<0.0005	0.00022	0.136	<0.0001	<0.001	<0.05	<0.00001	65.1	<0.001	<0.0002
RSEM-R6E-EOP	10/22/2021 10:00	AIW017	M	C181072	2.17	0.0005	3.69	<0.00002	19.9	0.276	27.7	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.0113	<0.0005	0.00022	0.135	<0.0001	<0.001	<0.05	<0.00001	63.6	<0.001	<0.0002
RSEM-R6E-EOP	10/23/2021 10:30	AIZ371	M	C181550	2.22	0.00052	3.42	<0.00002	20.8	0.284	26.0	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	0.0111	<0.0005	0.00022	0.129	<0.0001	<0.001	<0.05	<0.00001	64.8	<0.001	<0.0002
RSEM-R6E-EOP	10/24/2021 11:00	AIZ351	M	C181544	2.29	0.00056	3.41	<0.00002	23.5	0.284	27.5	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.0108	<0.0005	0.00027	0.126	<0.0001	<0.001	0.052	<0.00001	65.1	<0.001	<0.0002
RSEM-R6E-EOP	10/25/2021 5:30	AIZ358	M	C181547	2.79	0.00075	3.35	<0.00002	29.2	0.351	33.8	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0106	<0.0005	0.00024	0.116	<0.0001	<0.001	0.063	<0.00001	68.1	<0.001	<0.0002
RSEM-R6E-EOP	10/26/2021 10:20	AJF136	M	C182473	2.82	0.00088	3.28	<0.00002	31.2	0.345	35.2	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	0.0104	<0.0005	0.00026	0.111	<0.0001	<0.001	0.061	<0.00001	71.6	<0.001	<0.0002
RSEM-R6E-EOP	10/26/2021 10:30	AJF137	D	C182473	2.89	0.00088	3.24	<0.00002	32.4	0.343	38.4	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	0.0104	<0.0005	0.00027	0.111	<0.0001	<0.001	0.062	<0.00001	72.2	<0.001	<0.0002
RSEM-R6E-EOP	10/27/2021 14:30	AJH724	M	C182990	2.93	0.00104	2.92	<0.00002	32.5	0.347	38.7	<0.00001	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001	0.0115	<0.0005	0.00027	0.099	<0.0001	<0.001	0.061	<0.00001	69.7	<0.001	<0.0002
RSEM-R6E-EOP	10/28/2021 15:30	AJL907	M	C183658	2.98	0.00104	2.95	<0.00002	33.7	0.349	39.3	<0.00001	<0.005	<0.005	0.002	<0.005	<0.005	<0.0001	0.0098	<0.0005	0.00026	0.092	<0.0001	<0.001	0.065	<0.00001	63.6	<0.001	<0.0002
RSEM-R6E-EOP	10/28/2021 15:40	AJL908	D	C183658	2.95	0.001	2.97	<0.00002	33.2	0.348	38.7	<0.00001	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001	0.0101	<0.0005	0.00026	0.092	<0.0001	<0.001	0.064	<0.00001	62.1	<0.001	<0.0002
RSEM-R6E-EOP	10/29/2021 11:10	AJL060	M	C183557	3.00	0.00107	3.09	<0.00002	34.4	0.351	39.7	<0.00001	<0.005	<0.005	0.002	<0.005	<0.005	<0.0001	0.0113	<0.0005	0.00027	0.092	<0.0001	<0.001	0.065	<0.00001	63.5	<0.001	<0.0002
RSEM-R6E-EOP	10/30/2021 11:50	AJO162	M	C184013	3.12	0.00109	3.2	<0.00002	35.5	0.379	39.7	<0.00001	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	0.0096	<0.0005	0.00025	0.093	<0.0001	<0.001	0.069	<0.00001	67.9	<0.001	<0.0002
RSEM-R6E-EOP	10/30/2021 12:00	AJO163	D	C184013	3.12	0.00106	3.94	<0.00002	36.1	0.39	39.4	<0.00001	<0.005	<0.005	0.00213	<0.005	<0.005	<0.0001	0.011	<0.0005	0.00027	0.092	<0.0001	<0.001	0.069	<0.00001	65.2	<0.001	<0.0002
RSEM-R6E-EOP	10/31/2021 11:40	AJO160	M	C184012	3.11	0.00111	3.09	<0.00002	35.9	0.373	39.8	<0.00001	<0.005	<0.005	0.00224	<0.005	0.0066	<0.0001	0.0084	<0.0005	0.00026	0.093	<0.0001	<0.001	0.07	<0.00001	66.2	<0.001	<0.0002
RSEM-R6E-EOP	11/1/2021 14:10	AJS226	M	C184600	2.85	0.00159	2.54	<0.00002	35.5	0.337	26.5	<0.00001	<0.005	<0.005	0.00213	<0.005	<0.005	<0.0001	0.0064	<0.0005	0.00021	0.091	<0.0001	<0.001	0.074	<0.00001	66.6	<0.001	<0.0002
RSEM-R6E-EOP	11/1/2021 14:20	AJS227	D	C184600	2.84	0.0016	2.58	<0.00002	35.7	0.336	32.1	<0.00001	<0.005	<0.005	0.00211	<0.005	<0.005	<0.0001	0.0062	<0.0005	0.0002	0.093	<0.0001	<0.001	0.074	<0.00001	66.4	<0.001	<0.0002
RSEM-R6E-EOP	11/2/2021 14:45	AJU789	M	C184881	2.87	0.0016	2.67	<0.00002	36.7	0.336	30.2	<0.00001	<0.005	<0.005	0.00216	<0.005	<0.005	<0.0001	0.0056	<0.0005	0.00021	0.099	<0.0001	<0.001	0.073	<0.00001	69.0	<0.001	<0.0002
RSEM-R6E-EOP	11/3/2021 12:10	AJX282	M	C185315	3.43	0.00171	2.74	<0.00002	38.8	0.364	27.7	<0.00001	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001	0.0075	<0.0005	0.00023	0.115	<0.0001	<0.001	0.076	<0.00001	68.2	<0.001	<0.0002
RSEM-R6E-EOP	11/3/2021 12:20	AJX283	D	C185315	3.18	0.0017	2.72	<0.00002	41.1	0.365	28.3	<0.00001	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001	0.0069	<0.0005	0.00024	0.118	<0.0001	<0.001	0.075	<0.00001	68.7	<0.001	<0.0002
RSEM-R6E-EOP	11/4/2021 10:55	AKA061	M	C185756	3.27	0.00167	2.82	<0.00002	40.0	0.372	28.3	<0.00001	<0.005	<0.005	0.00252	<0.005	<0.005	<0.0001	0.0065	<0.0005	0.00023	0.124	<0.0001	<0.001	0.068	<0.00001	67.8	<0.001	<0.0002
RSEM-R6E-EOP	11/5/2021 11:05	AKA064	M	C185757	3.32	0.0012	2.9	<0.00002	40.0	0.379	27.0	<0.00001	<0.005	<0.005	0.00242	<0.005	<0.005	<0.0001	0.0064	<0.0005	0.00028	0.145	<0.0001	<0.001	0.069	<0.00001	71.1	<0.001	<0.0002
RSEM-R6E-EOP	11/5/2021 11:15	AKA065	D	C185757	3.25	0.00116	2.89	<0.00002	40.2	0.371	26.8	<0.00001	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001	0.0064	<0.0005	0.00025	0.142	<0.0001	<0.001	0.07	<0.00001	70.6	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	11/6/2021 10:55	AKD992	M	C186250	3.89	0.00116	2.8	<0.00002	40.3	0.434	27.8	<0.00001	<0.005	<0.005	0.00235	<0.005	<0.005	<0.0001	0.0077	<0.0005	0.0003	0.14	<0.0001	<0.001	0.079	<0.00001	76.4	<0.001	<0.0002
RSEM-R6E-EOP	11/7/2021 10:35	AKD997	M	C186252	4.45	0.00129	2.83	<0.00002	41.1	0.499	31.7	<0.00001	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001	0.0087	<0.0005	0.00029	0.143	<0.0001	<0.001	0.083	<0.00001	82.3	<0.001	0.00024
RSEM-R6E-EOP	11/7/2021 10:45	AKD998	D	C186252	4.70	0.00124	2.87	<0.00002	40.6	0.516	34.5	0.000011	<0.005	<0.005	0.0025	<0.005	<0.005	<0.0001	0.0089	<0.0005	0.00032	0.143	<0.0001	<0.001	0.078	<0.00001	81.9	<0.001	0.00025
RSEM-R6E-EOP	11/8/2021 10:30	AKD974	M	C186247	5.32	0.00124	2.81	<0.00002	41.5	0.598	34.7	<0.00001	<0.005	<0.005	0.00247	<0.005	<0.005	<0.0001	0.0121	<0.0005	0.00033	0.139	<0.0001	<0.001	0.087	<0.00001	88.8	<0.001	0.00044
RSEM-R6E-EOP	11/9/2021 11:30	AKJ862	M	C187047	4.68	0.00126	2.72	<0.00002	40.6	0.544	35.8	0.000011	<0.005	<0.005	0.00241	<0.005	<0.005	<0.0001	0.0131	<0.0005	0.00031	0.133	<0.0001	<0.001	0.088	<0.00001	89.6	<0.001	0.00037
RSEM-R6E-EOP	11/10/2021 12:00	AKN274	M	C187468	4.92	0.00132	2.84	<0.00002	44.1	0.575	45.5	0.000011	<0.005	<0.005	0.00266	<0.005	<0.005	<0.0001	0.0114	<0.0005	0.00029	0.133	<0.0001	<0.001	0.072	0.000012	88.9	<0.001	0.00049
RSEM-R6E-EOP	11/11/2021 10:30	AKN227	M	C187460	4.65	0.00146	2.88	<0.00002	42.8	0.54	34.4	0.000011	<0.005	<0.005	0.0025	<0.005	<0.005	<0.0001	0.0108	<0.0005	0.00029	0.131	<0.0001	<0.001	0.073	0.000012	87.9	<0.001	0.00053
RSEM-R6E-EOP	11/12/2021 10:30	AKN246	M	C187463	4.47	0.00146	2.79	<0.00002	41.8	0.516	32.6	0.000011	<0.005	<0.005	0.00246	<0.005	<0.005	<0.0001	0.0108	<0.0005	0.00029	0.132	<0.0001	<0.001	0.072	0.000019	87.4	<0.001	0.0006
RSEM-R6E-EOP	11/13/2021 10:30	AKS759	M	C188237	4.94	0.00202	3.06	<0.00002	43.8	0.515	39.4	0.000012	<0.005	<0.005	0.00252	<0.005	<0.005	0.00041	0.0129	<0.0005	0.0003	0.132	<0.0001	<0.001	0.089	0.000023	87.9	<0.001	0.00081
RSEM-R6E-EOP	11/14/2021 10:30	AKS790	M	C188243	4.97	0.00169	3.14	<0.00002	44.5	0.527	42.2	0.000014	<0.005	<0.005	0.0026	<0.005	<0.005	0.00031	0.012	<0.0005	0.00029	0.137	<0.0001	<0.001	0.091	0.000022	88.8	<0.001	0.00065
RSEM-R6E-EOP	11/15/2021 6:00	AKS804	M	C188248	5.04	0.00155	3.21	<0.00002	45.4	0.529	39.4	0.000012	<0.005	<0.005	0.00258	<0.005	0.005	0.00027	0.013	<0.0005	0.00029	0.137	<0.0001	<0.001	0.089	0.000026	88.1	<0.001	0.0007
RSEM-R6E-EOP	11/16/2021 14:40	AKV418	M	C188704	4.42	0.00124	2.94	<0.00002	44.4	0.481	35.7	0.000013	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001	0.0153	<0.0005	0.0003	0.135	<0.0001	<0.001	0.082	0.000031	89.8	<0.001	0.00064
RSEM-R6E-EOP	11/16/2021 14:50	AKV419	D	C188704	4.44	0.00129	2.92	<0.00002	44.4	0.479	35.5	0.000012	<0.005	<0.005	0.00252	<0.005	<0.005	<0.0001	0.016	<0.0005	0.00032	0.135	<0.0001	<0.001	0.083	0.000036	90.4	<0.001	0.00064
RSEM-R6E-EOP	11/17/2021 11:05	AKY309	M	C189131	4.22	0.00122	3.17	<0.00002	38.6	0.492	30.2	<0.00001	<0.005	<0.005	0.0023	<0.005	0.0052	<0.0001	0.0154	<0.0005	0.00042	0.15	<0.0001	<0.001	0.078	0.000029	96.5	<0.001	0.00075
RSEM-R6E-EOP	11/18/2021 10:30	AKZ640	M	C189345	3.92	0.00115	3.14	<0.00002	43.2	0.473	30.1	0.000011	<0.005	<0.005	0.00222	<0.005	0.0059	<0.0001	0.0162	<0.0005	0.00031	0.147	<0.0001	<0.001	0.083	0.000033	93.6	<0.001	0.00079
RSEM-R6E-EOP	11/18/2021 10:40	AKZ641	D	C189345	3.92	0.0012	3.11	<0.00002	44.0	0.473	30.3	<0.00001	<0.005	<0.005	0.00225	<0.005	0.0051	<0.0001	0.0163	<0.0005	0.00042	0.147	<0.0001	<0.001	0.083	0.000032	94.5	<0.001	0.00083
RSEM-R6E-EOP	11/19/2021 10:45	AKZ638	M	C189344	4.41	0.00119	3.22	<0.00002	42.0	0.538	26.8	0.000011	<0.005	<0.005	0.00241	<0.005	0.0098	<0.0001	0.0201	<0.0005	0.00033	0.142	<0.0001	<0.001	0.084	0.000049	96.9	<0.001	0.00114
RSEM-R6E-EOP	11/20/2021 10:10	ALR014	M	C192879	6.31	0.0021	3.57	<0.00002	55.5	0.73	45.8	0.000019	<0.005	<0.005	0.00317	<0.005	0.0124	0.00025	0.0197	0.00053	0.00046	0.183	<0.0001	<0.001	0.133	0.000062	123	<0.001	0.0014
RSEM-R6E-EOP	11/20/2021 10:20	ALR015	D	C192879	6.98	0.00207	3.92	<0.00002	61.2	0.804	51.4	0.000016	<0.005	<0.005	0.00363	<0.005	0.0145	0.00032	0.0246	0.00067	0.0008	0.221	<0.0001	<0.001	0.141	0.000078	140	<0.001	0.00175
RSEM-R6E-EOP	11/21/2021 10:00	ALT347	M	C193212	5.27	0.0018	3.39	0.00002	54.3	0.636	39.7	0.000016	<0.005	<0.005	0.00294	<0.005	0.0131	0.00032	0.024	0.00067	0.00057	0.242	<0.0001	<0.001	0.15	0.000068	141	0.0011	0.0016
RSEM-R6E-EOP	11/22/2021 10:35	ALQ579	M	C192775	4.94	0.00161	5.2	<0.00002	65.3	0.587	43.6	0.000012	<0.005	<0.005	0.00279	<0.005	0.0144	<0.0001	0.0137	<0.0005	0.00038	0.148	<0.0001	<0.001	0.115	0.00004	95.4	<0.001	0.00095
RSEM-R6E-EOP	11/22/2021 10:45	ALQ580	D	C192775	4.48	0.00153	4.97	<0.00002	58.8	0.526	36.1	0.000013	<0.005	<0.005	0.00251	<0.005	0.0133	<0.0001	0.0133	<0.0005	0.00038	0.151	<0.0001	<0.001	0.112	0.000047	93.4	<0.001	0.00097
RSEM-R6E-EOP	11/23/2021 10:05	ALN415	M	C192217	4.72	0.00134	5.21	<0.00002	63.9	0.555	44.0	0.000014	<0.005	<0.005	0.00258	<0.005	0.011	<0.0001	0.0192	0.00057	0.0005	0.181	<0.0001	<0.001	0.137	0.000047	134	0.0011	0.0011
RSEM-R6E-EOP	11/24/2021 10:25	ALQ701	M	C192806	3.75	0.00113	3.26	<0.00002	44.7	0.435	32.7	<0.00001	<0.005	<0.005	0.00194	<0.005	0.0075	<0.0001	0.0117	<0.0005	0.00038	0.142	<0.0001	<0.001	0.114	0.000018	96.0	<0.001	0.0007
RSEM-R6E-EOP	11/24/2021 10:35	ALQ702	D	C192806	3.72	0.00111	3.25	<0.00002	46.8	0.44	31.1	<0.00001	<0.005	<0.005	0.002	<0.005	0.0076	<0.0001	0.0114	<0.0005	0.00039	0.14	<0.0001	<0.001	0.112	0.000022	96.6	<0.001	0.00071
RSEM-R6E-EOP	11/25/2021	FJ2101334-001	M	FJ2101334	4.09	0.000967	4.14	<0.000010	52.4	0.431	47.8	<0.000010	<0.00010	0.00130	0.00188	0.00062	0.0070	<0.00020	0.0128	0.00039	0.00038	0.126	<0.000100	0.00005	0.071	0.0000265	96.6	0.00065	0.00058
RSEM-R6E-EOP	11/26/2021 10:00	FJ2101337-001	M	FJ2101337	4.08	0.00110	3.94	<0.000010	51.7	0.470	52.1	<0.000010	<0.00010	0.00071	0.00204	<0.00050	0.0090	<0.00020	0.0155	0.00041	0.00038	0.120	<0.000100	0.00005	0.077	0.0000343	92.3	<0.00050	0.00091
RSEM-R6E-EOP	11/26/2021 10:10	FJ2101337-002	D	FJ2101337	4.21	0.00112	4.05	<0.000010	52.8	0.487	52.5	<0.000010	<0.00010	<0.00060	0.00202	<0.00050	0.0088	<0.00020	0.0164	0.00039	0.00036	0.125	<0.000100	0.00005	0.078	0.0000407	94.2	<0.00050	0.00091
RSEM-R6E-EOP	11/27/2021 10:30	FJ2101340-001	M	FJ2101340	4.22	0.00122	4.11	<0.000010	55.5	0.535	53.1	0.000011	<0.00010	0.00048	0.00208	<0.00050	0.0115	<0.00020	0.0177	0.00041	0.00038	0.143	<0.000100	0.00005	0.085	0.0000394	93.3	<0.00050	0.00104
RSEM-R6E-EOP	11/28/2021 10:00	FJ2101338-001	M	FJ2101338	4.29	0.00134	3.98	<0.000010	54.0	0.503	58.8	0.000010	<0.00010	0.00054	0.00237	<0.00050	0.0103	<0.00020	0.0148	0.00042	0.00040	0.140	<0.000100	0.00005	0.076	0.0000343	95.0	<0.00050	0.00102
RSEM-R6E-EOP	11/28/2021 10:10	FJ2101338-002	D	FJ2101338	4.41	0.00144	3.94	<0.000010	55.8	0.518	59.7	0.000011	<0.00010	<0.00090	0.00232	<0.00050	0.0107	<0.00020	0.0156	0.00042	0.00039	0.146	<0.000100	0.00005	0.077	0.0000380	90.3	<0.00050	0.00102
RSEM-R6E-EOP	11/29/2021 9:45	FJ2101339-001	M	FJ2101339	4.29	0.00146	4.01	<0.000010	56.6	0.552	57.6	0.000011	<0.00010	<0.00120	0.00234	<0.00050	0.0100	<0.00020	0.0146	0.00044	0.00045	0.144	<0.000100	0.00005	0.088	0.0000323	98.8	<0.00050	0.00104
RSEM-R6E-EOP	11/30/2021 12:00	FJ2101361-001	M	FJ2101361	4.76	0.00171	3.95	<0.000010	59.3	0.513	60.2	<0.000010	<0.00010	<0.00060	0.00251	<0.00050	0.0079	<0.00020	0.0132	0.00041	0.00041	0.138	<0.000100	0.00005	0.088	0.0000325	101	<0.00050	0.00086
RSEM-R6E-EOP	12/1/2021 12:00	FJ2101362-001	M	FJ2101362	4.24	0.00206	3.59	<0.000010	59.0	0.501	59.3	<0.000010	<0.00010	0.00046	0.00275	<0.00050	0.0086	<0.00020	0.0120	0.00044	0.00040	0.134	<0.000100	0.00005	0.082	0.0000230	102	<0.00050	0.00090
RSEM-R6E-EOP	12/2/2021 11:30	FJ2101375-001	M	FJ2101375	4.45	0.00204	4.03	<0.000010	61.6	0.546	69.8	0.000011	<0.00010	0.00076	0.00307	<0.00050	0.0069	<0.00020	0.0109	0.00043	0.00040	0.110	<0.000100	0.00005	0.083	<0.0000050	84.7	<0.00050	0.00042
RSEM-R6E-EOP	12/3/2021 11:00	FJ2101374-001	M	FJ2101374	4.28	0.00209	4.00	<0.000010	59.4	0.536	72.4	0.000010	0.0001	0.00055	0.00317	<0.00050	0.0058	<0.00020	0.0094	0.00040	0.00040	0.103	<0.000100	0.00005	0.080	<0.0000050	84.6	<0.00050	0.00033
RSEM-R6E-EOP	12/4/2021 11:00	FJ2101385-001	M	FJ2101385	4.73	0.00223	4.10	<0.000010	61.6	0.561	76.3	<0.000010	0.0001	<0.00030	0.00341	<0.00050	0.0057	<0.00020	0.0084	0.00041	0.00038	0.117	<0.000100	0.00005	0.085	0.0000196	112	<0.00050	0.00042
RSEM-R6E-EOP	12/8/2021 11:00	FJ2101419-001	M	FJ2101419	4.88	0.00222	4.12	<0.000010	64.9	0.591	81.6	<0.000010	0.0001	<0.00030	0.00376	<0.00050	0.0035	<0.00020	0.0092	0.00036	0.00037	0.126	<0.000100	0.00005	0.092	0.0000134	115	<0.00050	0.00022
RSEM-R6E-EOP	12/9/2021 10:05	FJ2101442-001	M	FJ2101442	4.96	0.00239	4.45	<0.000010	65.5	0.596	83.6	0.000011	0.0002	<0.00060	0.00391	<0.00050	0.0056	<0.00020	0.0073	0.00039	0.00037	0.096	<0.000100	0.00005	0.085	0.0000192	106	<0.00050	0.00030
RSEM-R6E-EOP	12/9/2021 10:15	FJ2101442-002	D	FJ2101442	4.90	0.00224	4.38	<0.000010	64.7	0.587	83.0	0.000010	0.0002	0.00043	0.00392	<0.00050	0.0056	<0.00020	0.0082	0.00039	0.00038	0.114	<0.000100	0.00005	0.093	0.0000166	108	<0.00050	0.00034
RSEM-R6E-EOP	12/10/2021 10:45	FJ2101436-001	M	FJ2101436	5.06	0.00230	4.49	<0.000010	65.9	0.592	83.5	0.000011	0.0002	<0.00030	0.00394	<0.00050	0.0051	<0.00020	0.0188	0.00040	0.00039	0.118	<0.000100	0.00005	0.093	0.0000173	108	<0.00050	0.00030
RSEM-R6E-EOP	12/11/2021 13:40	FJ2101439-001	M	FJ2101439	4.93	0.00237	4.34	<0.000010	65.0	0.576	83.7	0.000011	0.0002	<0.00060	0.00401	<0.00050	0.0036	<0.00020	0.0068	0.00038	0.00040	0.106	<0.000100	0.00005	0.092	0.0000126	108	<0.00050	0.00019
RSEM-R6E-EOP	12/11/2021 13:50	FJ2101439-002	D	FJ2101439	4.99	0.00230	4.42	<0.000010	65.6	0.589	85.3	0.000012	0.0002	<0.00030	0.00398	<0.00050	0.0041	<0.00020	0.0066	0.00038	0.00042	0.106	<0.000100	0.00005	0.091	0.0000145	106	<0.00050	0.00018
RSEM-R6-EP-US-SD	3/17/2021 13:35	ZM7316	M	C117752	4.89	0.0013	10.1	0.0003	32.9	0.352	51	0.000343	<0.025	0.059	0.00217	<0.025	0.149	0.00122	0.0392	<0.0005	0.00026	0.029	<0.0001	<0.001	<0.05	0.000161	68.7	<0.001	0.00162
RSEM-R6-EP-US-SD	5/19/2021 11:30	ZV3571	M	C134016	3.88	0.00107	4.3	<0.00002	63.5	0.487	44.5	0.000016	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	0.0129	<0.0005	0.00036	0.093	<0.0001	<0.001	0.125	<0.00001	73.9	<0.001	<0.0002
RSEM-R6-EP-US-SD	7/20/2021 13:55	ACH817	M	C152456	41.9	0.00814	199	0.00639	62.2	6.88	208	0.00399	<0.005	0.511	0.0414	0.582	2.92	0.00417	0.0422	0.00059	0.00037	0.058	<0.0001	<0.001	0.171	0.000052	255	<0.001	0.00022
RSEM-R6E-SP	2/3/2021 14:30	ZG9146	M	C107662	2.98	0.00094	3.97	<0.00002	55.5	0.266	34.7	<0.00001	<0.005	<0.005	0.00188	<0.005	0.013	0.0001	0.0037	<0.0005	0.0004	0.142	<0.0001	<0.001	0.078	0.000016	78.8	<0.001	0.0002
RSEM-R6E-SP	2/3/2021 14:40	ZG9147	D	C107662	2.98	0.00096	4.17	<0.00002	57.5	0.264	34.9	<0.00001	<0.005	<0.005	0.00186	<0.005	0.0133	<0.0001	0.0036	<0.0005	0.00041	0.147	<0.0001	<0.001	0.078	0.000016	78.8	<0.001	0.00021
RSEM-R6E-SP	2/4/2021 13:30	ZH1010	M	C107961	3.19	0.00105	4.67	<0.00002	60.2	0.274	37.8	0.000015	<0.005	<0.005	0.00195	<0.005	0.0153	<0.0001	0.0035	<0.0005	0.00038	0.145	<0.0001	<0.001	0.086	0.000011	78.6	<0.001	<0.0002
RSEM-R6E-SP	2/5/2021 13:50	ZH1013	M	C107964	3.14	0.001	4.66	<0.00002	57.1	0.301	37.9	0.000012	<0.005	<0.005	0.00194	<0.005	0.0132	<0.0001	0.0035	<0.0005	0.00037	0.146	<0.0001	<0.001	0.083	0.000012	83.4	<0.001	0.0003
RSEM-R6E-SP	2/8/2021 10:30	ZH3062	M	C108279	3.21	0.00099	4.84	<0.00002	58.1	0.292	38.9	0.000011	<0.005	<0.005	0.00187	<0.005	0.0123	0.00011	0.0034	<0.0005	0.00044	0.155	<0.0001	<0.001	0.08	0.000016	79.0	<0.001	0.00023
RSEM-R6E-SP	2/16/2021 14:00	ZI2028	M	C110128	3.28	0.00094	4.44	<0.00002	57.7	0.299	35.0	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0093	<0.0001	0.0036	<0.0005	0.00036	0.139	<0.0001	<0.001	0.082	0.000012	84.6	<0.001	0.00033
RSEM-R6E-SP	2/26/2021 14:10	ZJ8523	M	C112618	3.66	0.00071	3.26	<0.00002	41.5	0.275	26.2	<0.00001	<0.005	<0.005	0.00124	<0.005	0.0134	0.00012	0.0072	<0.0005	0.00037	0.102	<0.0001	<0.001	0.061	0.000022	61.6	0.0011	0.00041
RSEM-R6E-SP	2/27/2021 13:00	ZK1992	M	C113050	4.09	0.00074	3.61	<0.00002	45.1	0.316	28.7	<0.00001	<0.005	<0.005	0.00128	<0.005	0.0318	<0.0001	0.0082	<0.0005	0.0004	0.106	<0.0001	<0.001	0.058	0.000027	61.1	0.0012	0.00054
RSEM-R6E-SP	3/12/2021 12:35	ZM0346	M	C116306	2.47	0.00106	2.74	<0.00002	41.3	0.265	38.1	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	0.0072	0.00062	0.00034	0.103	<0.0001	<0.001	<0.05	0.000021	57.0	<0.001	0.00034
RSEM-R6E-SP	3/14/2021 12:45	ZM2397	M	C116750	2.44	0.001	2.43	<0.00002	38.1	0.257	37.5	<0.00001	<0.005	<0.005	0.00101	<0.005	0.0056	<0.0001	0.0068	0.00061	0.00032	0.097	<0.0001	<0.001	<0.05	0.000016	54.9	<0.001	0.00035
RSEM-R6E-SP	3/25/2021 15:30	ZN6324	M	C119610	3.04	0.00066	1.72	<0.00002	26.7	0.275	22.9	0.00001	<0.005	<0.005	0.00086	<0.005	0.0108	<0.0001	0.0139	<0.0005	0.00023	0.055	<0.0001	<0.001	<0.05	0.000024	41.5	<0.001	0.0005
RSEM-R6E-SP	6/1/2021 11:15	ZX3970	M	C137816	7.37	0.0015	<0.1	<0.00002	56.1	2.15	44.6	0.000023	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0115	0.00053	0.00043	0.127	<0.0001	<0.001	0.113	<0.00001	92.2	<0.001	<0.0002
RSEM-R6E-SP	6/2/2021 12:55	ZX5270	M	C138096	7.28	0.00144	<0.1	<0.00002	58.0	2.07	44.0	0.000022	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0116	0.00052	0.00047	0.119	<0.0001	<0.001	0.112	<0.00001	90.5	<0.001	<0.0002
RSEM-R6E-SP	6/3/2021 11:50	ZX7151	M	C138404	7.39	0.00121	<0.1	<0.00002	58.4	1.99	44.1	0.00002	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0118	0.00051	0.00048	0.124	<0.0001	<0.001	0.121	<0.00001	88.8	<0.001	<0.0002
RSEM-R6E-SP	6/4/2021 11:20	ZX6906	M	C138357	7.38	0.00122	<0.1	<0.00002	60.1	1.93	45.4	0.00002	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	0.0113	<0.0005	0.00046	0.121	<0.0001	<0.001	0.118	<0.00001	88.6	<0.001	<0.0002
RSEM-R6E-SP	6/12/2021 10:40	ZZ1988	M	C141056	5.89	0.00181	<0.1	<0.00002	61.7	1.38	49.4	0.00002	<0.005	<0.005	0.00197	<0.005	<0.005	<0.0001	0.0074	0.00059	0.00054	0.11	<0.0001	<0.001	0.113	<0.00001	73.6	<0.001	<0.0002
RSEM-R6E-SP	6/13/2021 14:30	ZZ1993	M	C141057	5.93	0.00177	<0.1	<0.00002	63.7	1.36	51.9	0.000016	<0.005	<0.005	0.00197	<0.005	<0.005	<0.0001	0.0073	0.00055	0.00054	0.107	<0.0001	<0.001	0.114	<0.00001	71.7	<0.001	<0.0002
RSEM-R6E-SP	6/14/2021 10:55	ZZ2009	M	C141059	5.91	0.0017	<0.1	<0.00002	63.2	1.39	53.1	0.000016	<0.005	<0.005	0.002	<0.005	<0.005	<0.0001	0.0073	0.00056	0.00057	0.107	<0.0001	<0.001	0.117	<0.00001	71.7	<0.001	<0.0002
RSEM-R6E-SP	6/22/2021 13:40	AAL815	M	C144319	6.26	0.00197	<0.1	<0.00002	58.9	1.18	23.3	0.000032	<0.005	<0.005	0.00184	<0.005	0.0084	<0.0001	0.0109	<0.0005	0.00038	0.075	<0.0001	<0.001	0.122	<0.00001	66.4	<0.001	<0.0002
RSEM-R6E-SP	6/23/2021 15:00	AAO112	M	C144722	5.82	0.00185	<0.1	<0.00002	63.7	1.06	36.3	0.000014	<0.005	<0.005	0.00174	<0.005	0.0056	<0.0001	0.0122	<0.0005	0.00043	0.075	<0.0001	<0.001	0.132	<0.00001	62.1	<0.001	<0.0002
RSEM-R6E-SP	6/24/2021 15:00	AAQ177	M	C144970	5.47	0.00161	<0.1	<0.00002	124	1.04	70.4	0.000015	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001	0.0098	<0.0005	0.00043	0.073	<0.0001	<0.001	0.139	<0.00001	57.5	<0.001	<0.0002
RSEM-R6E-SP	6/25/2021 13:40	AAP489	M	C144894	5.10	0.00144	<0.1	<0.00002	115	0.965	65.7	0.000014	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001	0.0094	<0.0005	0.00044	0.073	<0.0001	<0.001	0.14	<0.00001	58.0	<0.001	<0.0002
RSEM-R6E-SP	6/26/2021 14:50	AAU432	M	C145599	6.25	0.00162	<0.1	<0.00002	57.8	1.08	35.4	0.000013	<0.005	<0.005	0.0017	<0.005	0.0092	<0.0001	0.0118	0.00053	0.00051	0.09	<0.0001	<0.001	0.158	<0.00001	73.9	<0.001	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	6/27/2021 13:35	AAU319	M	C145583	6.14	0.00178	<0.1	<0.00002	55.7	1.04	32.3	0.000013	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	0.0103	<0.0005	0.00053	0.085	<0.0001	<0.001	0.147	<0.00001	69.2	<0.001	<0.0002
RSEM-R6E-SP	6/28/2021 14:00	AAX136	M	C146134	6.30	0.00159	<0.1	<0.00002	57.8	1.06	28.1	0.000022	<0.005	<0.005	0.00172	<0.005	0.0091	<0.0001	0.0126	0.00055	0.00065	0.099	<0.0001	<0.001	0.175	<0.00001	82.3	<0.001	<0.0002
RSEM-R6E-SP	6/29/2021 15:30	AAZ027	M	C146532	7.19	0.00146	0.145	<0.00002	65.1	1.51	62.7	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0148	<0.0005	0.00068	0.087	<0.0001	<0.001	0.125	<0.00001	63.1	<0.001	<0.0002
RSEM-R6E-SP	6/30/2021 11:20	AAZ002	M	C146528	7.33	0.00136	0.222	<0.00002	66.9	1.51	61.9	<0.00001	<0.005	<0.005	0.00161	<0.005	0.0098	<0.0001	0.0122	<0.0005	0.00075	0.093	<0.0001	<0.001	0.124	<0.00001	65.5	<0.001	<0.0002
RSEM-R6E-SP	7/1/2021 15:40	ABB251	M	C146903	7.69	0.0013	0.401	<0.00002	66.5	1.55	63.9	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0106	<0.0005	0.00087	0.095	<0.0001	<0.001	0.13	0.000078	64.3	<0.001	<0.0002
RSEM-R6E-SP	7/2/2021 12:25	ABB257	M	C146905	7.56	0.00128	0.487	<0.00002	66.2	1.49	60.4	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	0.0149	<0.0005	0.00071	0.108	<0.0001	<0.001	0.169	<0.00001	70.5	<0.001	0.00021
RSEM-R6E-SP	7/3/2021 9:25	ABE023	M	C147272	6.94	0.00106	0.509	<0.00002	63.3	1.13	55.4	0.000017	<0.005	<0.005	0.00165	<0.005	0.0071	<0.0001	0.0138	<0.0005	0.00104	0.115	<0.0001	<0.001	0.168	0.000015	71.7	<0.001	0.00026
RSEM-R6E-SP	7/4/2021 14:00	ABD994	M	C147267	7.21	0.00104	0.587	<0.00002	67.4	1.15	60.3	<0.00001	<0.005	<0.005	0.00174	<0.005	0.0053	<0.0001	0.0152	<0.0005	0.00087	0.11	<0.0001	<0.001	0.145	<0.00001	63.4	<0.001	<0.0002
RSEM-R6E-SP	7/5/2021 9:50	ABG200	M	C147674	7.17	0.00097	0.636	<0.00002	68.1	1.13	59.6	<0.00001	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001	0.0169	<0.0005	0.00088	0.118	<0.0001	<0.001	0.173	<0.00001	66.3	<0.001	<0.0002
RSEM-R6E-SP	7/6/2021 10:40	ABJ178	M	C148228	7.10	0.00103	0.667	<0.00002	60.8	1.21	61.6	0.000012	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0088	<0.0005	0.00093	0.11	<0.0001	<0.001	0.137	<0.00001	63.1	<0.001	<0.0002
RSEM-R6E-SP	7/7/2021 12:00	ABK531	M	C148516	7.44	0.00096	0.723	<0.00002	62.0	1.24	59.9	0.00002	<0.005	<0.005	0.0016	<0.005	0.0071	<0.0001	0.009	<0.0005	0.00098	0.11	<0.0001	<0.001	0.136	<0.00001	60.7	<0.001	<0.0002
RSEM-R6E-SP	7/8/2021 12:00	ABM760	M	C148925	7.21	0.00077	0.706	<0.00002	67.2	1.04	55.2	0.000012	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.0104	<0.0005	0.00108	0.111	<0.0001	<0.001	0.131	<0.00001	58.4	<0.001	<0.0002
RSEM-R6E-SP	7/9/2021 10:10	ABM747	M	C148923	7.24	0.0007	0.725	<0.00002	69.5	0.994	56.6	0.000012	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.0103	<0.0005	0.00103	0.11	<0.0001	<0.001	0.132	<0.00001	57.5	<0.001	<0.0002
RSEM-R6E-SP	7/10/2021 10:30	ABP527	M	C149429	7.32	0.00078	0.841	<0.00002	68.4	1.02	55.2	0.000014	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.0117	<0.0005	0.00108	0.116	<0.0001	<0.001	0.133	<0.00001	57.4	<0.001	0.00021
RSEM-R6E-SP	7/11/2021 10:30	ABP672	M	C149459	7.40	0.00091	0.867	<0.00002	70.3	1	57.3	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	0.0138	<0.0005	0.00112	0.116	<0.0001	<0.001	0.136	<0.00001	56.7	<0.001	<0.0002
RSEM-R6E-SP	7/12/2021 5:00	ABP853	M	C149486	7.23	0.00092	0.876	<0.00002	68.3	0.997	54.6	0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001	0.0124	<0.0005	0.00124	0.114	<0.0001	<0.001	0.136	<0.00001	54.7	<0.001	<0.0002
RSEM-R6E-SP	7/15/2021 15:55	ABY387	M	C150960	7.50	0.00054	0.997	<0.00002	60.5	1.09	59.5	0.000012	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.0079	<0.0005	0.00141	0.11	<0.0001	<0.001	0.107	<0.00001	50.7	<0.001	<0.0002
RSEM-R6E-SP	7/16/2021 13:10	ABZ186	M	C151029	7.26	0.00054	1.01	<0.00002	58.3	1.05	58.4	0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	0.0085	<0.0005	0.0014	0.119	<0.0001	<0.001	0.108	<0.00001	57.0	<0.001	<0.0002
RSEM-R6E-SP	7/29/2021 12:20	ACY651	M	C155287	6.68	0.00101	1.31	<0.00002	46.8	0.969	77.8	0.00002	<0.005	<0.005	0.00199	<0.005	0.0188	<0.0001	0.0125	0.00051	0.00062	0.067	<0.0001	<0.001	0.114	<0.00001	93.9	<0.001	<0.0002
RSEM-R6E-SP	7/30/2021 10:20	ACY653	M	C155288	6.30	0.00094	1.14	<0.00002	44.7	0.906	75.1	0.000015	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	0.0148	0.0005	0.00078	0.07	<0.0001	<0.001	0.105	<0.00001	98.1	<0.001	<0.0002
RSEM-R6E-SP	7/31/2021 12:20	ADA373	M	C155508	6.65	0.00079	1.08	<0.00002	48.2	0.824	75.7	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0064	<0.0001	0.016	<0.0005	0.00072	0.066	<0.0001	<0.001	0.125	<0.00001	89.9	<0.001	<0.0002
RSEM-R6E-SP	8/1/2021 11:30	ADC691	M	C155924	6.71	0.00107	0.925	<0.00002	49.9	0.921	76.4	0.000017	<0.005	<0.005	0.00195	<0.005	<0.005	<0.0001	0.0151	0.0005	0.00077	0.067	<0.0001	<0.001	0.114	<0.00001	86.9	<0.001	<0.0002
RSEM-R6E-SP	12/5/2021 13:00	FJ2101386-001	M	FJ2101386	4.75	0.00144	4.52	<0.000010	64.8	0.553	60.8	<0.000010	<0.00010	<0.00030	0.00267	<0.00050	0.0042	<0.00020	0.0116	0.00049	0.00042	0.162	<0.000100	0.00005	0.094	0.0000223	113	<0.00050	0.00039
RSEM-R6E-SP	12/12/2021 11:55	FJ2101434-001	M	FJ2101434	4.96	0.00191	4.49	<0.000010	70.7	0.600	64.3	0.000012	0.0002	<0.00060	0.00319	<0.00050	0.0051	<0.00020	0.0102	0.00046	0.00042	0.158	<0.000100	0.00005	0.104	0.0000167	112	<0.00050	0.00041
RSEM-R6E-SP	12/15/2021 14:30	FJ2101472-002	M	FJ2101472	5.14	0.00232	4.56	<0.000010	70.8	0.622	81.2	0.000011	0.0002	<0.00030	0.00392	<0.00050	0.0053	<0.00020	0.0057	0.00037	0.00036	0.125	<0.000100	0.00005	0.108	0.0000094	130	<0.00050	0.00014
RSEM-R6E-SP	12/22/2021 7:00	FJ2101508-003	M	FJ2101508	5.95	0.00227	5.46	<0.000010	80.4	0.675	90.4	<0.000010	0.0002	0.00051	0.00387	<0.00050	0.0092	<0.00020	0.0058	0.00046	0.00042	0.157	<0.000100	0.00005	0.100	0.0000141	132	<0.00050	0.00027
RSEM-R6E-SP-US	5/27/2021 15:20	ZW4833	M	C136103	3.34	0.00107	3.94	<0.00002	99.3	0.71	55.7	0.000017	<0.005	<0.005	0.00123	<0.005	0.0072	<0.0001	0.0467	<0.0005	0.0003	0.092	<0.0001	<0.001	0.211	<0.00001	84.7	<0.001	0.00123
RSEM-R6E-SP-US	8/22/2021 14:00	AEI415	M	C161433	12.2	0.00244	43.6	0.00054	31.0	2.22	67	0.000206	<0.025	0.482	0.00791	0.105	0.742	0.00101	0.0699	0.00114	0.00022	0.131	<0.0001	<0.001	0.107	0.000223	157	0.0013	0.0107
RSEM-R6W-EOP	1/1/2021 14:50	ZC6628	M	C100093	3.81	0.00314	4.39	<0.00002	192	0.236	135	<0.00001	<0.005	<0.005	0.00289	0.0061	0.0113	<0.0001	0.0163	0.00155	0.00101	0.014	<0.0001	<0.001	0.134	<0.00001	28.7	0.0021	0.00034
RSEM-R6W-EOP	1/2/2021 15:55	ZC7220	M	C100230	3.87	0.00327	4.73	<0.00002	189	0.253	140	<0.00001	<0.005	<0.005	0.00294	0.006	0.0112	<0.0001	0.0161	0.00142	0.00096	0.013	<0.0001	<0.001	0.137	<0.00001	28.5	0.0018	0.00031
RSEM-R6W-EOP	1/4/2021 18:20	ZC8854	M	C100618	3.62	0.00298	4.39	<0.00002	176	0.242	126	<0.00001	<0.005	<0.005	0.00287	0.0064	0.0127	<0.0001	0.0146	0.00125	0.00086	0.012	<0.0001	<0.001	0.129	<0.00001	27.0	0.0015	0.00026
RSEM-R6W-EOP	1/5/2021 11:55	ZC8849	M	C100616	3.63	0.003	4.42	<0.00002	178	0.238	133	<0.00001	<0.005	<0.005	0.00289	0.0067	0.0139	0.00014	0.0134	0.00123	0.00086	0.012	<0.0001	<0.001	0.13	<0.00001	27.1	0.0013	0.00022
RSEM-R6W-EOP	1/6/2021 13:40	ZD1295	M	C101203	3.55	0.00305	4.26	<0.00002	179	0.227	129	<0.00001	<0.005	<0.005	0.00286	0.0068	0.0301	<0.0001	0.0165	0.00123	0.00087	0.013	<0.0001	<0.001	0.12	<0.00001	26.2	0.0014	<0.0002
RSEM-R6W-EOP	1/7/2021 13:10	ZD2460	M	C101487	3.65	0.00272	4.39	<0.00002	186	0.244	127	<0.00001	<0.005	<0.005	0.0028	0.0063	0.0119	<0.0001	0.0148	0.00126	0.00086	0.014	<0.0001	<0.001	0.125	<0.00001	27.9	0.0013	0.00021
RSEM-R6W-EOP	1/8/2021 13:20	ZD2450	M	C101485	3.67	0.00284	4.76	<0.00002	179	0.247	127	<0.00001	<0.005	<0.005	0.00279	0.0071	0.0129	<0.0001	0.0157	0.00121	0.00082	0.016	<0.0001	<0.001	0.129	<0.00001	28.5	0.0012	<0.0002
RSEM-R6W-EOP	1/9/2021 14:20	ZD4127	M	C101792	3.43	0.00303	4.08	<0.00002	182	0.232	121	<0.00001	<0.005	<0.005	0.0027	0.007	0.0133	<0.0001	0.0148	0.00132	0.00088	0.014	<0.0001	<0.001	0.13	<0.00001	27.7	0.0012	<0.0002
RSEM-R6W-EOP	1/10/2021 13:00	ZD4124	M	C101791	3.48	0.00288	3.97	<0.00002	182	0.228	120	<0.00001	<0.005	<0.005	0.00265	0.0068	0.0141	0.00011	0.0152	0.00135	0.00088	0.016	<0.0001	<0.001	0.132	<0.00001	28.1	0.0012	<0.0002
RSEM-R6W-EOP	1/11/2021 14:20	ZD5675	M	C102082	3.52	0.00308	4.52	<0.00002	180	0.243	125	<0.00001	<0.005	<0.005	0.0028	0.0067	0.0129	<0.0001	0.0141	0.00148	0.00097	0.015	<0.0001	<0.001	0.13	<0.00001	26.8	0.0014	0.00021
RSEM-R6W-EOP	1/12/2021 13:20	ZD8127	M	C102522	3.71	0.00288	4.94	<0.00002	192	0.242	136	<0.00001	<0.005	<0.005	0.0028	0.0073	0.0131	<0.0001	0.0121	0.00146	0.0009	0.014	<0.0001	<0.001	0.125	<0.00001	25.6	0.0013	<0.0002
RSEM-R6W-EOP	1/13/2021 13:50	ZD9242	M	C102779	3.61	0.00271	4.93	<0.00002	184	0.257	134	<0.00001	<0.005	<0.005	0.00277	0.0071	0.0128	0.00011	0.0149	0.0016	0.00093	0.015	<0.0001	<0.001	0.138	<0.00001	25.9	0.0013	<0.0002
RSEM-R6W-EOP	1/14/2021 10:30	ZD9431	M	C102840	3.67	0.00261	4.91	<0.00002	184	0.245	133	<0.00001	<0.005	<0.005	0.0027	0.0074	0.0134	<0.0001	0.0155	0.00168	0.00101	0.016	<0.0001	<0.001	0.134	<0.00001	25.6	0.0015	<0.0002
RSEM-R6W-EOP	1/15/2021 13:15	ZE0829	M	C103125	3.56	0.00269	4.85	<0.00002	175	0.229	122	<0.00001	<0.005	<0.005	0.00259	0.0072	0.0123	<0.0001	0.0143	0.00186	0.00109	0.016	<0.0001	<0.001	0.131	<0.00001	24.8	0.0017	<0.0002
RSEM-R6W-EOP	1/16/2021 11:05	ZE2984	M	C103538	3.54	0.00263	4.87	<0.00002	167	0.231	119	<0.00001	<0.005	<0.005	0.0026	0.0076	0.0118	0.00012	0.0141	0.00192	0.00112	0.016	<0.0001	<0.001	0.131	<0.00001	24.1	0.0018	<0.0002
RSEM-R6W-EOP	1/17/2021 13:40	ZE3023	M	C103542	3.42	0.00257	4.92	<0.00002	163	0.228	115	<0.00001	<0.005	<0.005	0.00256	0.0076	0.0112	0.00013	0.0134	0.00193	0.00111	0.015	<0.0001	<0.001	0.131	<0.00001	23.7	0.0017	<0.0002
RSEM-R6W-EOP	1/18/2021 10:30	ZE2901	M	C103523	3.57	0.00256	4.98	<0.00002	165	0.23	116	<0.00001	<0.005	<0.005	0.00259	0.0075	0.0117	0.00018	0.0143	0.00189	0.00104	0.016	<0.0001	<0.001	0.129	<0.00001	23.9	0.0018	<0.0002
RSEM-R6W-EOP	1/19/2021 12:30	ZE5959	M	C104146	3.35	0.00256	4.69	<0.00002	159	0.201	110	<0.00001	<0.005	<0.005	0.00255	0.0079	0.0131	<0.0001	0.0141	0.00178	0.00101	0.016	<0.0001	<0.001	0.12	<0.00001	24.6	0.0017	<0.0002
RSEM-R6W-EOP	1/20/2021 12:30	ZE6018	M	C104156	3.50	0.00258	4.74	<0.00002	166	0.216	118	<0.00001	<0.005	<0.005	0.00256	0.0075	0.0125	<0.0001	0.014	0.00173	0.00095	0.015	<0.0001	<0.001	0.122	<0.00001	25.5	0.0017	<0.0002
RSEM-R6W-EOP	1/21/2021 15:30	ZE9302	M	C104705	3.54	0.00247	4.64	<0.00002	169	0.223	118	<0.00001	<0.005	<0.005	0.00241	0.0068	0.0114	<0.0001	0.0138	0.00152	0.00083	0.014	<0.0001	<0.001	0.115	<0.00001	25.2	0.0016	0.00024
RSEM-R6W-EOP	1/22/2021 13:10	ZE9299	M	C104704	3.53	0.00257	4.74	<0.00002	174	0.243	126	<0.00001	<0.005	<0.005	0.00246	0.0069	0.0103	<0.0001	0.0163	0.00148	0.00086	0.016	<0.0001	<0.001	0.112	<0.00001	28.2	0.0019	0.00033
RSEM-R6W-EOP	1/23/2021 15:55	ZF1597	M	C105086	3.64	0.00243	4.81	<0.00002	168	0.255	122	<0.00001	<0.005	<0.005	0.00259	0.0065	0.0102	0.00012	0.0174	0.00152	0.00095	0.018	<0.0001	<0.001	0.121	<0.00001	31.4	0.0022	0.00039
RSEM-R6W-EOP	1/24/2021 13:55	ZF1582	M	C105082	3.72	0.00248	5.01	<0.00002	170	0.255	124	<0.00001	<0.005	<0.005	0.00259	0.0064	0.0097	0.00012	0.0189	0.00158	0.00098	0.019	<0.0001	<0.001	0.12	<0.00001	32.8	0.0026	0.00039
RSEM-R6W-EOP	1/25/2021 10:00	ZF1641	M	C105090	4.12	0.0029	4.92	<0.00002	187	0.28	134	<0.00001	<0.005	<0.005	0.00283	0.0063	0.0104	0.00015	0.0192	0.00161	0.00098	0.02	<0.0001	<0.001	0.127	<0.00001	35.1	0.0027	0.00046
RSEM-R6W-EOP	2/6/2021 13:10	ZH3137	M	C108285	4.15	0.00271	5.35	<0.00002	195	0.301	138	<0.00001	<0.005	<0.005	0.00284	0.0071	0.0243	0.00017	0.0216	0.00184	0.00119	0.022	<0.0001	<0.001	0.133	<0.00001	34.0	0.0029	0.00029
RSEM-R6W-EOP	2/7/2021 13:25	ZH3207	M	C108294	3.98	0.00256	5.18	<0.00002	185	0.289	125	<0.00001	<0.005	<0.005	0.00286	0.0075	0.0167	0.00012	0.0286	0.00172	0.0012	0.023	<0.0001	<0.001	0.13	<0.00001	31.9	0.003	0.00025
RSEM-R6W-EOP	2/7/2021 13:35	ZH3208	D	C108294	3.90	0.00271	5.29	<0.00002	184	0.285	125	<0.00001	<0.005	<0.005	0.0028	0.0075	0.0163	0.00015	0.0292	0.00174	0.00119	0.023	<0.0001	<0.001	0.132	<0.00001	31.8	0.003	0.00025
RSEM-R6W-EOP	2/8/2021 10:20	ZH3060	M	C108279	3.95	0.00247	5.29	<0.00002	172	0.287	119	<0.00001	<0.005	<0.005	0.00287	0.0078	0.0123	0.00017	0.0344	0.00165	0.00123	0.025	<0.0001	<0.001	0.124	<0.00001	30.7	0.0031	0.00021
RSEM-R6W-EOP	2/9/2021 15:50	ZH7147	M	C109072	3.86	0.00242	5.47	<0.00002	164	0.257	108	<0.00001	<0.005	<0.005	0.00291	0.0077	0.0088	0.00014	0.0421	0.00161	0.00107	0.026	<0.0001	<0.001	0.125	<0.00001	31.1	0.0034	<0.0002
RSEM-R6W-EOP	2/10/2021 13:10	ZH7144	M	C109071	3.98	0.00238	5.61	<0.00002	161	0.25	106	<0.00001	<0.005	<0.005	0.00296	0.0082	0.0086	0.00014	0.0415	0.00151	0.00115	0.024	<0.0001	<0.001	0.123	<0.00001	30.0	0.0035	<0.0002
RSEM-R6W-EOP	2/11/2021 17:00	ZH8475	M	C109352	3.92	0.00233	5.41	<0.00002	155	0.238	101	<0.00001	<0.005	<0.005	0.00296	0.008	0.0104	0.00011	0.0291	0.00147	0.00115	0.021	<0.0001	<0.001	0.123	<0.00001	28.2	0.0036	<0.0002
RSEM-R6W-EOP	2/12/2021 10:50	ZH8473	M	C109351	3.97	0.00223	5.49	<0.00002	155	0.23	99.6	<0.00001	<0.005	<0.005	0.00303	0.0083	0.014	0.00012	0.0222	0.00147	0.00109	0.02	<0.0001	<0.001	0.119	<0.00001	27.4	0.0038	<0.0002
RSEM-R6W-EOP	2/13/2021 13:00	ZH8990	M	C109471	3.83	0.00217	5.66	<0.00002	148	0.214	94.1	<0.00001	<0.005	<0.005	0.00296	0.0083	0.0168	0.00012	0.0257	0.00152	0.00115	0.019	<0.0001	<0.001	0.118	<0.00001	26.3	0.0038	<0.0002
RSEM-R6W-EOP	2/13/2021 13:10	ZH8991	D	C109471	3.85	0.00212	5.45	<0.00002	148	0.215	95.7	<0.00001	<0.005	<0.005	0.00295	0.0082	0.0146	0.00014	0.0256	0.00152	0.00121	0.019	<0.0001	<0.001	0.115	<0.00001	26.6	0.0038	<0.0002
RSEM-R6W-EOP	2/14/2021 10:00	ZI0121	M	C109675	3.85	0.00213	5.71	<0.00002	150	0.218	96.7	0.000015	<0.005	<0.005	0.00283	0.0079	0.0152	0.00012	0.0195	0.0017	0.00125	0.02	<0.0001	<0.001	0.125	<0.00001	27.1	0.0039	<0.0002
RSEM-R6W-EOP	2/15/2021 10:00	ZI0119	M	C109675	3.80	0.00213	5.77	<0.00002	148	0.203	90.9	0.000025	<0.005	<0.005	0.00289	0.008	0.0151	0.00012	0.0176	0.00189	0.00133	0.02	<0.0001	<0.001	0.122	<0.00001	25.9	0.0041	<0.0002
RSEM-R6W-EOP	2/16/2021 13:40	ZI2026	M	C110128	3.99	0.00213	5.77	<0.00002	144	0.202	89.5	<0.00001	<0.005	<0.005	0.00277	0.0087	0.0204	0.00014	0.0142	0.00212	0.00146	0.019	<0.0001	<0.001	0.119	<0.00001	25.6	0.0043	<0.0002
RSEM-R6W-EOP	2/16/2021 13:50	ZI2027	D	C110128	3.90	0.00211	5.55	<0.00002	143	0.2	86.6	<0.00001	<0.005	<0.005	0.00275	0.0087	0.0185	0.00013	0.0155	0.00216	0.00146	0.019	<0.0001	<0.001	0.12	<0.00001	25.3	0.0043	<0.0002
RSEM-R6W-EOP	2/17/2021 13:15	ZI1809	M	C110059	3.93	0.00212	5.92	<0.00002	145	0.203	90.4	<0.00001	<0.005	<0.005	0.00283	0.0089	0.0225	0.0002	0.0137	0.00232	0.00156	0.019	<0.0001	<0.001	0.117	<0.00001	24.6	0.0043	<0.0002
RSEM-R6W-EOP	2/18/2021 13:50	ZI6453	M	C110759	3.75	0.00187	5.88	<0.00002	141	0.201	87.2	<0.00001	<0.005	<0.005	0.00281	0.0089	0.0214	0.00022	0.0123	0.0026	0.0016	0.019	<0.0001	<0.001	0.131	<0.00001	23.7	0.0042	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	2/18/2021 14:00	ZI6454	D	C110759	3.81	0.002	6.17	<0.00002	143	0.192	88.0	<0.00001	<0.005	<0.005	0.00284	0.0091	0.0217	0.00019	0.0125	0.00256	0.00156	0.018	<0.0001	<0.001	0.133	<0.00001	23.4	0.0041	<0.0002
RSEM-R6W-EOP	2/19/2021 12:55	ZI6371	M	C110747	3.87	0.00196	6.1	<0.00002	144	0.201	88.2	<0.00001	<0.005	0.0054	0.00287	0.0093	0.0242	0.00017	0.0144	0.00269	0.00169	0.019	<0.0001	<0.001	0.126	<0.00001	22.7	0.0041	<0.0002
RSEM-R6W-EOP	2/20/2021 11:10	ZI8653	M	C111165	3.68	0.00187	5.83	<0.00002	136	0.185	84.5	<0.00001	<0.005	<0.005	0.00277	0.0084	0.0292	0.00012	0.0145	0.00271	0.00154	0.02	<0.0001	<0.001	0.121	<0.00001	22.5	0.0037	<0.0002
RSEM-R6W-EOP	2/20/2021 11:20	ZI8654	D	C111165	3.70	0.00193	5.94	<0.00002	137	0.186	84.6	<0.00001	<0.005	<0.005	0.00271	0.0085	0.0296	0.00018	0.0123	0.0026	0.00154	0.019	<0.0001	<0.001	0.115	<0.00001	20.7	0.0038	<0.0002
RSEM-R6W-EOP	2/21/2021 13:40	ZI8311	M	C111114	3.79	0.00187	6.12	<0.00002	140	0.192	86.4	<0.00001	<0.005	<0.005	0.00277	0.0082	0.0316	0.00011	0.0137	0.00266	0.00158	0.021	<0.0001	<0.001	0.117	<0.00001	21.5	0.0043	<0.0002
RSEM-R6W-EOP	2/22/2021 15:40	ZJ0344	M	C111442	3.87	0.00195	5.96	<0.00002	141	0.215	94.7	<0.00001	<0.005	<0.005	0.00269	0.0075	0.0251	0.00014	0.0165	0.00253	0.00137	0.02	<0.0001	<0.001	0.119	<0.00001	26.5	0.0037	<0.0002
RSEM-R6W-EOP	2/25/2021 12:30	ZJ8556	M	C112624	4.20	0.00231	6.14	<0.00002	147	0.245	98.3	<0.00001	<0.005	<0.005	0.00293	0.0076	0.0214	0.00014	0.0234	0.00247	0.0016	0.024	<0.0001	<0.001	0.111	<0.00001	23.8	0.0039	<0.0002
RSEM-R6W-EOP	2/26/2021 13:50	ZJ8521	M	C112618	4.47	0.00252	5.67	<0.00002	152	0.222	97.2	<0.00001	<0.005	<0.005	0.00272	0.0072	0.0215	0.00014	0.0175	0.0023	0.00143	0.023	<0.0001	<0.001	0.116	0.000016	25.7	0.0044	0.00028
RSEM-R6W-EOP	2/26/2021 14:00	ZJ8522	D	C112618	4.42	0.00252	5.61	<0.00002	152	0.22	95.3	<0.00001	<0.005	<0.005	0.00274	0.0073	0.0219	<0.0001	0.017	0.00239	0.00146	0.023	<0.0001	<0.001	0.116	0.000014	25.6	0.0045	0.00027
RSEM-R6W-EOP	2/27/2021 12:30	ZK1993	M	C113050	4.63	0.00296	5.7	<0.00002	156	0.245	102	<0.00001	<0.005	<0.005	0.00254	0.0065	0.0184	0.00015	0.0182	0.00232	0.0015	0.023	<0.0001	<0.001	0.11	0.000021	25.3	0.0048	0.00035
RSEM-R6W-EOP	2/28/2021 12:40	ZK2231	M	C113095	5.05	0.0033	5.35	<0.00002	163	0.239	106	<0.00001	<0.005	<0.005	0.00258	0.0063	0.0148	0.00012	0.0177	0.00219	0.00144	0.021	<0.0001	<0.001	0.11	0.000024	26.1	0.005	0.00039
RSEM-R6W-EOP	2/28/2021 12:50	ZK2232	D	C113095	5.00	0.00332	5.24	<0.00002	161	0.226	107	<0.00001	<0.005	<0.005	0.00257	0.0064	0.0146	0.00015	0.0177	0.00226	0.00147	0.021	<0.0001	<0.001	0.114	0.00003	26.2	0.0052	0.00039
RSEM-R6W-EOP	3/1/2021 9:40	ZK1995	M	C113051	2.67	0.00169	3.76	<0.00002	77.8	0.224	66.1	<0.00001	<0.005	<0.005	0.00141	<0.005	0.0063	<0.0001	0.0302	0.00092	0.00058	0.105	<0.0001	<0.001	0.058	0.000028	50.2	0.0019	0.0002
RSEM-R6W-EOP	3/2/2021 15:30	ZK8063	M	C114225	2.00	0.00108	4.14	0.000021	47.9	0.259	53.9	0.000018	<0.005	0.0278	0.00126	<0.005	0.0051	0.00051	0.037	<0.0005	0.00042	0.115	<0.0001	<0.001	<0.05	0.000024	57.4	<0.001	<0.0002
RSEM-R6W-EOP	3/3/2021 15:40	ZK8061	M	C114224	1.99	0.00117	5.11	0.000028	45.2	0.265	52.4	0.000025	<0.005	0.0278	0.00128	<0.005	0.0065	0.00042	0.0301	0.0005	0.00041	0.123	<0.0001	<0.001	<0.05	0.000026	60.8	<0.001	<0.0002
RSEM-R6W-EOP	3/4/2021 14:10	ZL0408	M	C114582	1.56	0.00089	4.5	<0.00002	29.9	0.23	37.6	0.00002	<0.005	0.022	0.00099	<0.005	0.0064	0.00046	0.0295	<0.0005	0.00026	0.112	<0.0001	<0.001	<0.05	0.00003	53.9	<0.001	<0.0002
RSEM-R6W-EOP	3/5/2021 12:30	ZL0414	M	C114584	2.19	0.00145	5.53	0.000021	56.2	0.259	56.1	0.000034	<0.005	0.0319	0.00128	<0.005	0.0072	0.00064	0.0114	0.0005	0.00034	0.135	<0.0001	<0.001	<0.05	0.000026	54.4	<0.001	<0.0002
RSEM-R6W-EOP	3/6/2021 9:40	ZL3536	M	C115040	1.85	0.00125	4.49	<0.00002	46.9	0.259	51.5	0.000024	<0.005	0.0172	0.00106	<0.005	<0.005	0.00053	0.026	<0.0005	0.00029	0.126	<0.0001	<0.001	<0.05	0.000027	58.9	<0.001	<0.0002
RSEM-R6W-EOP	3/6/2021 9:50	ZL3534	D	C115040	1.87	0.00129	4.69	<0.00002	48.6	0.253	52.0	0.000024	<0.005	0.0341	0.00104	<0.005	<0.005	0.00034	0.0277	<0.0005	0.00031	0.128	<0.0001	<0.001	<0.05	0.00003	59.7	<0.001	<0.0002
RSEM-R6W-EOP	3/8/2021 12:10	ZL3598	M	C115055	1.57	0.00127	4.91	<0.00002	37.1	0.24	41.8	0.000016	<0.005	0.015	0.00124	<0.005	<0.005	0.0003	0.0123	0.00092	0.0004	0.118	<0.0001	<0.001	<0.05	0.000056	56.3	<0.001	0.00021
RSEM-R6W-EOP	3/9/2021 14:20	ZL6923	M	C115720	1.72	0.00128	5.02	<0.00002	37.4	0.227	41.1	0.000017	<0.005	0.0284	0.00079	<0.005	<0.005	0.00086	0.0333	0.00072	0.00035	0.104	<0.0001	<0.001	<0.05	0.000021	54.2	<0.001	<0.0002
RSEM-R6W-EOP	3/9/2021 14:30	ZL6924	D	C115720	1.76	0.00133	4.62	<0.00002	38.4	0.235	42.6	0.000019	<0.005	0.0238	0.0008	<0.005	<0.005	0.00098	0.0331	0.00074	0.00034	0.103	<0.0001	<0.001	<0.05	0.000023	53.2	<0.001	<0.0002
RSEM-R6W-EOP	3/10/2021 12:55	ZL8188	M	C115987	1.56	0.00124	3.59	<0.00002	41.4	0.207	43.8	0.000011	<0.005	0.0064	0.00084	<0.005	<0.005	0.00014	0.0583	0.00059	0.00037	0.095	<0.0001	<0.001	<0.05	0.000019	53.8	<0.001	<0.0002
RSEM-R6W-EOP	3/11/2021 12:30	ZL8466	M	C116050	1.53	0.00117	3.32	<0.00002	41.6	0.204	44.7	<0.00001	<0.005	<0.005	0.00092	<0.005	<0.005	<0.0001	0.0589	0.0006	0.00036	0.092	<0.0001	<0.001	<0.05	0.000018	54.1	<0.001	<0.0002
RSEM-R6W-EOP	3/11/2021 12:40	ZL8467	D	C116050	1.47	0.00121	3.33	<0.00002	41.2	0.199	44.7	<0.00001	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0001	0.0603	0.00057	0.00037	0.091	<0.0001	<0.001	<0.05	0.000019	53.6	<0.001	<0.0002
RSEM-R6W-EOP	3/12/2021 12:25	ZM0345	M	C116306	1.61	0.00126	2.98	<0.00002	41.8	0.211	43.8	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001	0.0296	0.00059	0.00034	0.091	<0.0001	<0.001	<0.05	0.000022	54.6	<0.001	0.00021
RSEM-R6W-EOP	3/13/2021 13:30	ZM2419	M	C116756	1.74	0.00125	3.49	<0.00002	42.8	0.22	45.1	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	0.0127	0.00063	0.00036	0.09	<0.0001	<0.001	<0.05	0.000028	55.2	0.001	0.00021
RSEM-R6W-EOP	3/13/2021 13:40	ZM2420	D	C116756	1.72	0.00133	3.49	<0.00002	42.3	0.22	44.8	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	0.012	0.00064	0.00038	0.09	<0.0001	<0.001	<0.05	0.000028	53.8	0.0011	0.00022
RSEM-R6W-EOP	3/14/2021 11:55	ZM2398	M	C116750	1.75	0.00138	3.93	0.000022	42.9	0.225	45.3	0.000015	<0.005	0.0079	0.00105	<0.005	0.0053	0.00016	0.0075	0.00067	0.00037	0.09	<0.0001	<0.001	<0.05	0.000021	54.7	0.001	<0.0002
RSEM-R6W-EOP	3/15/2021 12:00	ZM4115	M	C117045	2.01	0.00159	5.5	0.000021	48.6	0.219	47.7	0.00002	<0.005	0.033	0.00115	<0.005	<0.005	0.00051	0.009	0.00085	0.00042	0.088	<0.0001	<0.001	<0.05	0.000024	50.2	0.0011	<0.0002
RSEM-R6W-EOP	3/16/2021 13:40	ZM5657	M	C117434	1.96	0.00157	5.35	<0.00002	47.3	0.223	46.9	0.00002	<0.005	0.023	0.00117	<0.005	<0.005	0.00046	0.0113	0.00092	0.00055	0.082	<0.0001	<0.001	<0.05	0.00002	51.2	0.0013	<0.0002
RSEM-R6W-EOP	3/17/2021 14:30	ZM7319	M	C117752	1.77	0.00152	3.87	<0.00002	44.8	0.207	42.7	<0.00001	<0.005	0.0051	0.00104	<0.005	<0.005	0.00014	0.0475	0.00098	0.00057	0.074	<0.0001	<0.001	<0.05	0.00001	47.2	0.0012	<0.0002
RSEM-R6W-EOP	3/18/2021 12:50	ZM8874	M	C118063	1.79	0.00148	4.03	<0.00002	45.0	0.189	40.4	0.000011	<0.005	0.0055	0.00106	<0.005	<0.005	0.00021	0.0256	0.00094	0.00058	0.076	<0.0001	<0.001	<0.05	0.000014	46.9	0.0013	<0.0002
RSEM-R6W-EOP	3/19/2021 13:25	ZM8866	M	C118061	1.76	0.00155	4	<0.00002	45.3	0.192	42.8	0.000013	<0.005	0.0057	0.00115	<0.005	0.0055	0.00017	0.0271	0.00089	0.00055	0.075	<0.0001	<0.001	<0.05	0.000016	46.4	0.001	<0.0002
RSEM-R6W-EOP	3/20/2021 15:45	ZN1535	M	C118497	1.96	0.00153	3.64	<0.00002	47.3	0.182	39.6	0.00001	<0.005	0.0137	0.00089	<0.005	<0.005	0.00016	0.0441	0.00075	0.00049	0.075	<0.0001	<0.001	<0.05	0.000012	42.6	0.0012	<0.0002
RSEM-R6W-EOP	3/21/2021 12:05	ZN1583	M	C118513	1.87	0.00164	3.59	<0.00002	46.4	0.179	41.3	0.00001	<0.005	0.006	0.00086	<0.005	<0.005	0.00021	0.0371	0.00074	0.00043	0.084	<0.0001	<0.001	<0.05	0.000019	43.7	0.0011	<0.0002
RSEM-R6W-EOP	3/22/2021 11:05	ZN1162	M	C118411	2.03	0.00186	3.75	<0.00002	46.8	0.186	40.9	0.000012	<0.005	0.0104	0.00092	<0.005	<0.005	0.0002	0.0258	0.00079	0.00046	0.093	<0.0001	<0.001	<0.05	0.000023	44.4	<0.001	0.00025
RSEM-R6W-EOP	3/23/2021 13:00	ZN5252	M	C119350	2.04	0.00204	3.47	<0.00002	51.8	0.223	43.6	0.00001	<0.005	<0.005	0.00096	<0.005	<0.005	0.00012	0.0377	0.0009	0.0005	0.163	<0.0001	<0.001	<0.05	0.000021	45.7	<0.001	0.00029
RSEM-R6W-EOP	3/24/2021 11:30	ZN5257	M	C119352	1.97	0.00195	3.38	<0.00002	50.4	0.21	41.2	0.00001	<0.005	0.006	0.00096	<0.005	<0.005	0.00018	0.0241	0.00092	0.00052	0.166	<0.0001	<0.001	<0.05	0.000019	43.0	<0.001	0.0003
RSEM-R6W-EOP	3/25/2021 14:30	ZN6325	M	C119610	2.00	0.00187	3.87	<0.00002	50.5	0.202	41.4	0.000012	<0.005	0.0109	0.00109	<0.005	<0.005	0.00024	0.0236	0.00098	0.00058	0.169	<0.0001	<0.001	<0.05	0.000016	40.2	0.001	0.00027
RSEM-R6W-EOP	3/25/2021 15:00	ZN6323	D	C119610	1.99	0.00182	3.75	<0.00002	49.4	0.197	39.6	0.000012	<0.005	0.0123	0.00102	<0.005	0.0051	0.00037	0.0232	0.001	0.00058	0.175	<0.0001	<0.001	<0.05	0.000016	40.4	0.001	0.00026
RSEM-R6W-EOP	3/26/2021 10:50	ZN6316	M	C119607	2.07	0.00215	3.77	<0.00002	54.7	0.223	41.1	0.000011	<0.005	0.0153	0.00108	<0.005	<0.005	0.00054	0.0255	0.00146	0.00077	0.257	<0.0001	<0.001	<0.05	<0.00001	38.7	0.0012	0.00027
RSEM-R6W-EOP	3/27/2021 13:50	ZN9495	M	C120087	2.22	0.00231	5.4	<0.00002	58.8	0.239	42.3	0.000016	<0.005	0.042	0.00127	<0.005	<0.005	0.00074	0.0164	0.00151	0.00085	0.252	<0.0001	<0.001	0.051	0.000023	39.8	0.0011	0.00033
RSEM-R6W-EOP	3/28/2021 10:30	ZN9522	M	C120093	2.12	0.00225	3.99	<0.00002	58.8	0.234	42.8	0.000012	<0.005	0.0233	0.00115	<0.005	<0.005	0.00101	0.0301	0.00148	0.00079	0.227	<0.0001	<0.001	0.052	0.000013	40.2	0.0011	0.00026
RSEM-R6W-EOP	3/29/2021 10:50	ZN9581	M	C120108	2.03	0.00212	3.68	<0.00002	60.7	0.233	43.7	<0.00001	<0.005	0.0137	0.0011	<0.005	<0.005	0.0002	0.0423	0.00137	0.00079	0.199	<0.0001	<0.001	0.052	0.00001	40.7	0.0013	0.00024
RSEM-R6W-EOP	3/30/2021 12:55	ZO2681	M	C120790	2.12	0.00203	3.65	<0.00002	59.6	0.22	44.7	<0.00001	<0.005	0.0123	0.0011	<0.005	<0.005	0.00025	0.0335	0.00128	0.00077	0.17	<0.0001	<0.001	<0.05	0.00001	42.4	0.0014	0.00024
RSEM-R6W-EOP	3/30/2021 13:05	ZO2682	D	C120790	2.15	0.00199	3.95	<0.00002	60.2	0.222	45.1	<0.00001	<0.005	0.011	0.00113	<0.005	<0.005	0.00025	0.0343	0.00128	0.0008	0.175	<0.0001	<0.001	<0.05	0.000011	42.0	0.0014	0.00024
RSEM-R6W-EOP	3/31/2021 16:40	ZO4117	M	C121130	2.10	0.0021	3.67	<0.00002	61.0	0.21	43.0	0.000011	<0.005	0.0157	0.00111	<0.005	<0.005	0.00061	0.0349	0.00129	0.00079	0.167	<0.0001	<0.001	<0.05	<0.00001	41.0	0.0014	0.00029
RSEM-R6W-EOP	4/1/2021 11:30	ZO4124	M	C121132	2.35	0.00218	5.07	<0.00002	61.5	0.208	42.4	0.000017	<0.005	0.04	0.00122	<0.005	<0.005	0.00094	0.0236	0.00145	0.00091	0.183	<0.0001	<0.001	<0.05	0.00001	40.6	0.0016	0.00029
RSEM-R6W-EOP	4/2/2021 12:40	ZO4865	M	C121238	2.18	0.00234	4.6	<0.00002	60.0	0.202	45.0	0.000013	<0.005	0.022	0.00132	<0.005	0.0053	0.00228	0.0218	0.00159	0.00101	0.181	<0.0001	<0.001	0.06	0.000015	41.2	0.0016	0.0004
RSEM-R6W-EOP	4/3/2021 13:10	ZO6450	M	C121575	2.86	0.0037	8.1	0.000022	74.6	0.238	54.3	0.00003	<0.005	0.0618	0.00167	0.0071	<0.005	0.00223	0.0104	0.00249	0.00128	0.185	<0.0001	<0.001	0.059	0.000011	41.1	0.0015	0.00046
RSEM-R6W-EOP	4/3/2021 13:20	ZO6451	D	C121575	2.88	0.00378	7.71	<0.00002	74.5	0.244	53.6	0.000032	<0.005	0.0653	0.00163	0.0072	0.0054	0.0018	0.0103	0.00252	0.00131	0.188	<0.0001	<0.001	0.058	0.000012	41.1	0.0015	0.00046
RSEM-R6W-EOP	4/4/2021 12:50	ZO6464	M	C121580	2.85	0.00362	6.23	<0.00002	73.5	0.265	54.2	0.000025	<0.005	0.0477	0.00156	0.0056	<0.005	0.0016	0.0104	0.00244	0.00121	0.183	<0.0001	<0.001	0.057	0.00001	41.8	0.0016	0.00047
RSEM-R6W-EOP	4/5/2021 12:50	ZO7518	M	C121801	2.36	0.00311	6.12	<0.00002	62.0	0.235	47.2	0.000021	<0.005	0.0438	0.00144	<0.005	0.0056	0.00127	0.0122	0.00189	0.00115	0.237	<0.0001	<0.001	0.056	0.000168	39.5	0.0018	0.00045
RSEM-R6W-EOP	4/6/2021 14:30	ZO9475	M	C122250	2.46	0.00284	4.97	<0.00002	61.0	0.233	46.4	0.00002	<0.005	0.0329	0.00139	<0.005	<0.005	0.0008	0.0113	0.00155	0.00102	0.216	<0.0001	<0.001	0.054	0.000013	40.6	0.0017	0.00037
RSEM-R6W-EOP	4/7/2021 14:40	ZP0881	M	C122580	2.33	0.00292	5.31	<0.00002	61.4	0.225	46.4	0.000015	<0.005	0.0154	0.0014	<0.005	<0.005	0.00058	0.0137	0.00172	0.00128	0.284	<0.0001	<0.001	<0.05	0.000013	41.4	0.002	0.00034
RSEM-R6W-EOP	4/7/2021 14:50	ZP0882	D	C122580	2.36	0.00297	4.35	<0.00002	61.7	0.231	45.6	0.000016	<0.005	0.0168	0.0014	<0.005	<0.005	0.00057	0.0142	0.00172	0.00128	0.29	<0.0001	<0.001	<0.05	0.000012	41.3	0.002	0.00035
RSEM-R6W-EOP	4/8/2021 12:10	ZP1743	M	C122796	2.08	0.00272	3.72	<0.00002	59.0	0.228	44.0	0.000012	<0.005	0.0055	0.00125	<0.005	0.005	0.00026	0.0222	0.00161	0.00117	0.256	<0.0001	<0.001	0.053	0.00001	39.0	0.002	0.00032
RSEM-R6W-EOP	4/9/2021 13:00	ZP1762	M	C122801	2.09	0.00285	3.95	<0.00002	59.8	0.233	42.9	0.000012	<0.005	<0.005	0.00127	<0.005	<0.005	0.00039	0.0174	0.00176	0.00121	0.22	<0.0001	<0.001	0.055	0.000012	39.0	0.002	0.00035
RSEM-R6W-EOP	4/9/2021 13:10	ZP1763	D	C122801	2.04	0.0028	3.83	<0.00002	59.2	0.233	43.5	0.000011	<0.005	<0.005	0.00128	<0.005	<0.005	0.00027	0.0201	0.00173	0.00118	0.228	<0.0001	<0.001	0.053	0.00001	37.3	0.0019	0.00035
RSEM-R6W-EOP	4/10/2021 10:50	ZP3594	M	C123204	2.54	0.0026	4.45	<0.00002	57.7	0.262	43.9	0.000018	<0.005	0.0216	0.00138	<0.005	0.0051	0.0013	0.0157	0.00159	0.00093	0.269	<0.0001	<0.001	0.053	0.000011	39.4	0.0013	0.00045
RSEM-R6W-EOP	4/11/2021 12:50	ZP3858	M	C123260	2.25	0.00284	4.49	<0.00002	64.5	0.269	48.0	0.000019	<0.005	0.0224	0.00132	<0.005	0.0056	0.0006	0.0255	0.00161	0.00096	0.201	<0.0001	<0.001	0.056	0.000011	39.1	0.0014	0.00034
RSEM-R6W-EOP	4/12/2021 10:30	ZP3854	M	C123259	2.57	0.00238	3.93	<0.00002	56.1	0.27	43.9	0.000021	<0.005	0.0231	0.00134	<0.005	0.0068	0.00123	0.0099	0.00141	0.0008	0.349	<0.0001	<0.001	0.054	0.000016	39.7	0.001	0.00038
RSEM-R6W-EOP	4/13/2021 11:45	ZP9471	M	C124396	2.32	0.00322	4.05	<0.00002	68.3	0.304	43.9	0.000022	<0.005	0.0067	0.00162	<0.005	0.0057	0.00052	0.0071	0.00174	0.00123	0.745	<0.0001	<0.001	0.059	0.000023	35.5	0.0011	0.00031
RSEM-R6W-EOP	4/14/2021 18:50	ZP9474	M	C124397	2.23	0.00308	4.35	<0.00002	66.2	0.284	44.3	0.000024	<0.005	0.0076	0.00164	<0.005	0.0061	0.0005	0.0159	0.00161	0.00127	0.556	<0.0001	<0.001	0.058	<0.00001	38.7	0.0013	0.00038
RSEM-R6W-EOP	4/17/2021 11:40	ZQ3725	M	C125158	1.90	0.00236	4.93	<0.00002	58.8	0.245	43.8	<0.00001	<0.005	0.0258	0.00162	<0.005	<0.005	0.00073	0.0244	0.0013	0.0011	0.293	<0.0001	<0.001	0.052	<0.00001	44.1	<0.001	0.00037
RSEM-R6W-EOP	4/18/2021 10:30	ZQ3726	M	C125158	1.98	0.00243	6.4	<0.00002	58.4	0.241	41.6	0.000013	<0.005	0.0452	0.0016	<0.005	<0.005	0.00099	0.0231	0.00139	0.00124	0.333	<0.0001	<0.001	0.052	<0.00001	42.1	<0.001	0.00041
RSEM-R6W-EOP	4/19/2021 12:35	ZQ5795	M	C125554	1.91	0.00324	5.23	<0.00002	64.0	0.248	38.2	0.000014	<0.005	0.0272	0.0017	<0.005	<0.005	0.00126	0.017	0.00231	0.00208	0.655	<0.0001	<0.001	0.063	<0.00001	37.3	0.0011	0.0003
RSEM-R6W-EOP	4/20/2021 10:30	ZQ9981	M	C126323	1.91	0.00324	5	<0.00002	64.5	0.264	38.0	0.000019	<0.005	0.0288	0.00184	<0.005	<0.005	0.00114	0.0167	0.0024	0.00221	0.661	<0.0001	<0.001	0.068	<0.00001	37.3	0.0011	0.00028

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	4/21/2021 10:00	ZQ9982	M	C126323	1.99	0.00304	5.07	<0.00002	68.2	0.256	40.8	0.00002	<0.005	0.0229	0.0018	<0.005	<0.005	0.00115	0.0243	0.00222	0.00208	0.58	<0.0001	<0.001	0.068	<0.00001	37.1	0.0014	0.00031
RSEM-R6W-EOP	4/22/2021 9:30	ZR1313	M	C126529	1.93	0.00304	3.99	<0.00002	66.2	0.271	37.9	0.000016	<0.005	0.0056	0.00166	<0.005	<0.005	0.00039	0.0168	0.0024	0.00222	0.678	<0.0001	<0.001	0.068	<0.00001	34.9	<0.001	0.00034
RSEM-R6W-EOP	4/23/2021 9:30	ZR1314	M	C126529	1.80	0.00286	4.03	<0.00002	61.6	0.26	36.0	0.000012	<0.005	<0.005	0.00154	<0.005	<0.005	0.00024	0.0253	0.00212	0.00202	0.577	<0.0001	<0.001	0.063	<0.00001	34.3	0.001	0.00035
RSEM-R6W-EOP	4/24/2021 3:00	ZR4688	M	C127059	1.75	0.00246	5.15	<0.00002	60.1	0.241	36.1	0.000018	<0.005	0.0247	0.00141	<0.005	<0.005	0.00072	0.0344	0.00165	0.00154	0.465	<0.0001	<0.001	0.058	<0.00001	35.9	<0.001	0.00032
RSEM-R6W-EOP	4/25/2021 14:15	ZR4686	M	C127059	1.76	0.00241	4.86	<0.00002	62.1	0.23	37.2	0.000016	<0.005	0.0311	0.00135	<0.005	<0.005	0.001	0.0325	0.00145	0.00143	0.36	<0.0001	<0.001	0.058	<0.00001	36.9	<0.001	0.00036
RSEM-R6W-EOP	4/26/2021 10:30	ZR5705	M	C127281	1.55	0.00218	3.75	<0.00002	61.1	0.222	38.5	0.000011	<0.005	0.0155	0.00129	<0.005	<0.005	0.00055	0.0392	0.00131	0.00126	0.286	<0.0001	<0.001	0.056	<0.00001	37.7	<0.001	0.00042
RSEM-R6W-EOP	4/27/2021 15:45	ZR7959	M	C127704	1.59	0.00219	4.22	<0.00002	61.0	0.223	37.7	0.000011	<0.005	0.0112	0.00123	<0.005	<0.005	0.00025	0.0572	0.00125	0.00116	0.236	<0.0001	<0.001	0.06	<0.00001	39.4	<0.001	0.00042
RSEM-R6W-EOP	4/28/2021 12:20	ZS0313	M	C128230	1.33	0.00203	3.13	<0.00002	52.2	0.2	31.9	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	0.00025	0.0629	0.00101	0.00096	0.208	<0.0001	<0.001	0.052	<0.00001	38.1	<0.001	0.00044
RSEM-R6W-EOP	4/28/2021 12:30	ZS0314	D	C128230	1.33	0.00203	3.02	<0.00002	51.6	0.191	31.1	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	0.00015	0.064	0.00106	0.00099	0.21	<0.0001	<0.001	0.052	<0.00001	41.9	<0.001	0.00046
RSEM-R6W-EOP	4/29/2021 10:30	ZS2293	M	C128584	1.55	0.00234	4.31	<0.00002	58.5	0.203	33.4	0.000012	<0.005	0.0216	0.00113	<0.005	<0.005	0.00059	0.0532	0.00126	0.00115	0.214	<0.0001	<0.001	0.058	<0.00001	39.3	<0.001	0.00046
RSEM-R6W-EOP	4/30/2021 10:45	ZS2247	M	C128573	1.70	0.0025	5.04	<0.00002	63.9	0.195	35.4	0.000017	<0.005	0.0272	0.0012	<0.005	<0.005	0.00121	0.0499	0.00154	0.00145	0.209	<0.0001	<0.001	0.063	<0.00001	38.5	0.0012	0.00038
RSEM-R6W-EOP	4/30/2021 10:55	ZS2248	D	C128573	1.85	0.00252	5.14	<0.00002	64.3	0.203	35.2	0.000018	<0.005	0.0351	0.00122	<0.005	<0.005	0.0011	0.0491	0.00147	0.00141	0.196	<0.0001	<0.001	0.063	<0.00001	36.2	0.0012	0.00037
RSEM-R6W-EOP	5/1/2021 10:40	ZS6051	M	C129102	1.54	0.00228	4.04	<0.00002	60.6	0.189	34.0	<0.00001	<0.005	0.0102	0.00114	<0.005	<0.005	0.00058	0.0562	0.00147	0.00137	0.195	<0.0001	<0.001	0.064	<0.00001	35.5	0.0012	0.00038
RSEM-R6W-EOP	5/2/2021 12:30	ZS6044	M	C129102	1.33	0.0021	3.39	<0.00002	51.2	0.19	29.6	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	0.00015	0.0752	0.00111	0.00103	0.175	<0.0001	<0.001	0.055	<0.00001	34.9	<0.001	0.00037
RSEM-R6W-EOP	5/2/2021 12:40	ZS6046	D	C129102	1.36	0.002	3.23	<0.00002	51.7	0.19	29.6	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	0.00011	0.0749	0.00113	0.00104	0.176	<0.0001	<0.001	0.055	<0.00001	36.4	<0.001	0.00037
RSEM-R6W-EOP	5/3/2021 10:25	ZS6022	M	C129096	1.68	0.00436	4.13	<0.00002	57.5	0.201	30.8	0.000014	<0.005	0.0197	0.00141	<0.005	<0.005	0.00067	0.0389	0.00143	0.0017	0.248	<0.0001	<0.001	0.062	<0.00001	34.5	<0.001	0.00045
RSEM-R6W-EOP	5/4/2021 13:50	ZS9946	M	C129944	1.77	0.00398	4.14	<0.00002	67.6	0.208	38.4	0.000012	<0.005	0.011	0.0015	<0.005	<0.005	0.00065	0.032	0.00151	0.00161	0.205	<0.0001	<0.001	0.065	<0.00001	34.2	0.0014	0.00043
RSEM-R6W-EOP	5/5/2021 12:30	ZT3123	M	C130491	2.01	0.00331	5.48	<0.00002	75.6	0.212	43.5	0.000016	<0.005	0.0287	0.00153	<0.005	<0.005	0.00092	0.0218	0.00159	0.00173	0.184	<0.0001	<0.001	0.074	<0.00001	35.9	0.0017	0.00044
RSEM-R6W-EOP	5/6/2021 15:00	ZT3104	M	C130484	2.19	0.00304	5.9	<0.00002	84.1	0.214	48.8	0.000021	<0.005	0.0375	0.00159	0.0051	<0.005	0.00156	0.0109	0.00152	0.00168	0.166	<0.0001	<0.001	0.076	<0.00001	34.2	0.0017	0.00053
RSEM-R6W-EOP	5/7/2021 11:00	ZT3094	M	C130477	2.23	0.00323	5.98	<0.00002	87.9	0.218	51.1	0.000021	<0.005	0.0359	0.00164	<0.005	<0.005	0.00168	0.0105	0.00158	0.00184	0.175	<0.0001	<0.001	0.08	<0.00001	34.2	0.0018	0.00051
RSEM-R6W-EOP	5/8/2021 12:30	ZT6587	M	C130995	2.20	0.00389	5.63	<0.00002	84.2	0.202	50.8	0.000019	<0.005	0.0373	0.00176	<0.005	<0.005	0.00083	0.0115	0.00155	0.00173	0.155	<0.0001	<0.001	0.078	<0.00001	35.8	0.0016	0.00046
RSEM-R6W-EOP	5/9/2021 13:10	ZT6967	M	C131057	2.27	0.00492	5.91	<0.00002	88.4	0.225	55.5	0.000018	<0.005	0.0291	0.00199	<0.005	<0.005	0.00107	0.0101	0.00152	0.00163	0.156	<0.0001	<0.001	0.079	<0.00001	35.8	0.0016	0.00046
RSEM-R6W-EOP	5/10/2021 5:30	ZT6908	M	C131048	2.12	0.00463	5.09	<0.00002	86.6	0.215	53.6	0.000016	<0.005	0.026	0.00188	<0.005	<0.005	0.00151	0.0113	0.0014	0.00153	0.148	<0.0001	<0.001	0.078	<0.00001	35.5	0.0014	0.00046
RSEM-R6W-EOP	5/11/2021 10:50	ZU0198	M	C131591	2.10	0.00407	5.42	<0.00002	90.8	0.214	57.3	0.000016	<0.005	0.0262	0.00189	<0.005	<0.005	0.00121	0.0113	0.00121	0.00135	0.148	<0.0001	<0.001	0.072	<0.00001	38.6	0.0013	0.00052
RSEM-R6W-EOP	5/12/2021 11:00	ZU2125	M	C131927	1.92	0.00356	4.88	<0.00002	78.5	0.193	49.5	0.000014	<0.005	0.0232	0.0016	<0.005	<0.005	0.00071	0.012	0.00119	0.00132	0.163	<0.0001	<0.001	0.07	<0.00001	41.1	0.0012	0.00052
RSEM-R6W-EOP	5/13/2021 10:40	ZU4937	M	C132324	1.86	0.00334	4.39	<0.00002	73.5	0.194	46.3	<0.00001	<0.005	0.0209	0.0016	<0.005	<0.005	0.00085	0.0124	0.00117	0.00131	0.159	<0.0001	<0.001	0.092	<0.00001	38.8	0.0011	0.00049
RSEM-R6W-EOP	5/14/2021 10:10	ZU4952	M	C132327	1.88	0.00413	4.43	<0.00002	68.2	0.204	44.9	<0.00001	<0.005	0.016	0.00178	<0.005	<0.005	0.00052	0.0104	0.00109	0.00115	0.153	<0.0001	<0.001	0.083	<0.00001	39.9	<0.001	0.00046
RSEM-R6W-EOP	5/15/2021 14:40	ZU7899	M	C132915	2.18	0.00629	4.85	<0.00002	66.2	0.223	45.3	0.00001	<0.005	0.0246	0.0023	<0.005	<0.005	0.00085	0.012	0.00119	0.00114	0.138	<0.0001	<0.001	0.064	<0.00001	39.7	0.001	0.00037
RSEM-R6W-EOP	5/15/2021 14:50	ZU7900	D	C132915	2.18	0.00645	4.83	<0.00002	67.4	0.222	46.5	0.00001	<0.005	0.0255	0.00233	<0.005	<0.005	0.00083	0.0115	0.00121	0.00115	0.138	<0.0001	<0.001	0.065	<0.00001	39.6	0.001	0.00036
RSEM-R6W-EOP	5/16/2021 14:30	ZU7831	M	C132904	2.17	0.00651	4.08	<0.00002	63.9	0.232	46.7	0.000012	<0.005	0.0188	0.00242	<0.005	<0.005	0.00038	0.0119	0.00129	0.00128	0.142	<0.0001	<0.001	0.078	<0.00001	45.8	<0.001	0.00039
RSEM-R6W-EOP	5/17/2021 16:00	ZU9399	M	C133243	1.96	0.00614	3.46	<0.00002	55.0	0.221	39.3	<0.00001	<0.005	0.0107	0.0023	<0.005	<0.005	0.00051	0.0096	0.00106	0.00098	0.135	<0.0001	<0.001	0.06	<0.00001	41.8	<0.001	0.00036
RSEM-R6W-EOP	5/17/2021 16:10	ZU9400	D	C133243	2.02	0.00616	3.64	<0.00002	56.1	0.225	41.9	<0.00001	<0.005	0.0102	0.00228	<0.005	<0.005	0.0004	0.0094	0.00106	0.00099	0.134	<0.0001	<0.001	0.06	<0.00001	41.3	<0.001	0.00036
RSEM-R6W-EOP	5/18/2021 16:30	ZV2802	M	C133850	2.19	0.00741	3.82	<0.00002	65.8	0.228	46.4	0.000014	<0.005	0.0066	0.00232	<0.005	<0.005	0.00018	0.0144	0.00128	0.00118	0.135	<0.0001	<0.001	0.069	<0.00001	41.9	0.0012	0.00029
RSEM-R6W-EOP	5/19/2021 13:50	ZV3575	M	C134016	2.47	0.0089	4.13	<0.00002	78.2	0.242	52.1	0.000011	<0.005	0.0062	0.00252	<0.005	<0.005	0.00017	0.026	0.00158	0.0015	0.144	<0.0001	<0.001	0.078	<0.00001	40.4	0.0018	0.00022
RSEM-R6W-EOP	5/20/2021 12:10	ZV5699	M	C134406	2.55	0.0084	3.69	<0.00002	77.5	0.244	52.4	<0.00001	<0.005	0.0057	0.00272	<0.005	<0.005	0.00011	0.0669	0.0015	0.00124	0.136	<0.0001	<0.001	0.076	<0.00001	42.6	0.0019	<0.0002
RSEM-R6W-EOP	5/21/2021 11:00	ZV5659	M	C134400	2.56	0.00799	3.46	<0.00002	73.7	0.257	52.4	<0.00001	<0.005	<0.005	0.00275	<0.005	<0.005	0.00012	0.0522	0.00133	0.00105	0.119	<0.0001	<0.001	0.072	<0.00001	43.7	0.0018	<0.0002
RSEM-R6W-EOP	5/21/2021 11:10	ZV5660	D	C134400	2.52	0.0082	3.73	<0.00002	72.1	0.249	50.8	<0.00001	<0.005	0.007	0.00274	<0.005	<0.005	0.00019	0.0529	0.00139	0.00108	0.121	<0.0001	<0.001	0.075	<0.00001	45.1	0.0018	<0.0002
RSEM-R6W-EOP	5/22/2021 11:30	ZV6994	M	C134601	2.45	0.00767	3.38	<0.00002	71.6	0.242	51.5	<0.00001	<0.005	<0.005	0.00278	<0.005	<0.005	0.00016	0.029	0.00129	0.00099	0.108	<0.0001	<0.001	0.077	<0.00001	45.2	0.0019	<0.0002
RSEM-R6W-EOP	5/23/2021 14:20	ZV8624	M	C134923	2.40	0.00712	3.28	<0.00002	73.6	0.235	51.9	<0.00001	<0.005	<0.005	0.00262	<0.005	<0.005	0.00016	0.0224	0.00125	0.00101	0.113	<0.0001	<0.001	0.075	<0.00001	43.4	0.0021	<0.0002
RSEM-R6W-EOP	5/23/2021 14:30	ZV8625	D	C134923	2.57	0.00736	3.49	<0.00002	76.8	0.242	54.8	<0.00001	<0.005	0.0116	0.00269	<0.005	<0.005	0.00017	0.0212	0.00119	0.00098	0.11	<0.0001	<0.001	0.072	<0.00001	42.9	0.002	<0.0002
RSEM-R6W-EOP	5/24/2021 11:50	ZW1262	M	C135427	2.31	0.0059	3.33	<0.00002	76.0	0.224	53.0	<0.00001	<0.005	<0.005	0.00235	<0.005	<0.005	<0.0001	0.0241	0.00115	0.00102	0.098	<0.0001	<0.001	0.074	<0.00001	40.3	0.0023	<0.0002
RSEM-R6W-EOP	5/25/2021 9:30	ZW1243	M	C135423	2.12	0.00458	3.41	<0.00002	78.8	0.203	52.9	<0.00001	<0.005	<0.005	0.00193	<0.005	<0.005	0.0001	0.0232	0.00108	0.00106	0.089	<0.0001	<0.001	0.075	<0.00001	38.4	0.0024	<0.0002
RSEM-R6W-EOP	5/26/2021 12:00	ZW4842	M	C136104	2.69	0.00883	5.7	<0.00002	98.4	0.23	64.1	0.000019	<0.005	0.0263	0.00261	<0.005	<0.005	0.00114	0.017	0.00173	0.00219	0.124	<0.0001	<0.001	0.104	<0.00001	39.1	0.0026	0.00023
RSEM-R6W-EOP	5/27/2021 11:10	ZW4835	M	C136103	2.80	0.00962	3.91	<0.00002	114	0.273	75.3	<0.00001	<0.005	0.005	0.00254	<0.005	<0.005	0.00013	0.0205	0.00149	0.00174	0.111	<0.0001	<0.001	0.1	<0.00001	41.8	0.0022	0.00026
RSEM-R6W-EOP	5/28/2021 13:15	ZW4301	M	C136040	2.54	0.00755	3.96	<0.00002	102	0.247	72.9	<0.00001	<0.005	0.0089	0.00249	<0.005	<0.005	0.00062	0.0236	0.00127	0.00137	0.098	<0.0001	<0.001	0.097	0.000012	43.2	0.0018	0.00029
RSEM-R6W-EOP	5/29/2021 11:00	ZW9128	M	C136816	2.52	0.007	3.73	<0.00002	103	0.268	76.7	<0.00001	<0.005	0.0068	0.00265	<0.005	<0.005	0.00029	0.0165	0.00124	0.00125	0.093	<0.0001	<0.001	0.092	<0.00001	45.8	0.0018	0.00031
RSEM-R6W-EOP	5/30/2021 10:00	ZW9155	M	C136825	2.39	0.00609	3.24	<0.00002	100	0.257	73.4	<0.00001	<0.005	<0.005	0.00238	<0.005	<0.005	0.00024	0.0175	0.00124	0.00121	0.09	<0.0001	<0.001	0.095	<0.00001	45.5	0.0019	0.00026
RSEM-R6W-EOP	5/31/2021 6:20	ZW9168	M	C136832	2.31	0.00556	3.31	<0.00002	97.6	0.241	71.8	<0.00001	<0.005	<0.005	0.00225	<0.005	<0.005	0.00024	0.018	0.00125	0.00121	0.091	<0.0001	<0.001	0.094	<0.00001	45.3	0.0019	0.00025
RSEM-R6W-EOP	6/1/2021 10:45	ZX3967	M	C137816	2.21	0.0056	3.6	<0.00002	88.0	0.259	63.9	0.00001	<0.005	<0.005	0.00211	<0.005	<0.005	0.00013	0.0172	0.00117	0.00102	0.1	<0.0001	<0.001	0.087	<0.00001	44.7	0.0016	<0.0002
RSEM-R6W-EOP	6/1/2021 10:55	ZX3968	D	C137816	2.27	0.00573	3.67	<0.00002	89.6	0.263	65.6	<0.00001	<0.005	0.0057	0.00215	<0.005	<0.005	0.00012	0.0163	0.00116	0.00104	0.101	<0.0001	<0.001	0.086	<0.00001	43.9	0.0016	<0.0002
RSEM-R6W-EOP	6/2/2021 13:25	ZX5271	M	C138096	2.36	0.00526	3.66	<0.00002	102	0.25	71.8	<0.00001	<0.005	<0.005	0.00207	<0.005	<0.005	0.00013	0.0209	0.00128	0.0012	0.102	<0.0001	<0.001	0.094	<0.00001	40.6	0.0021	<0.0002
RSEM-R6W-EOP	6/3/2021 11:30	ZX7148	M	C138404	2.59	0.00467	4.09	<0.00002	109	0.24	74.5	<0.00001	<0.005	<0.005	0.00221	<0.005	<0.005	0.0002	0.0227	0.00139	0.00121	0.098	<0.0001	<0.001	0.096	<0.00001	40.1	0.0026	<0.0002
RSEM-R6W-EOP	6/3/2021 11:40	ZX7149	D	C138404	2.69	0.00472	3.9	<0.00002	113	0.248	78.6	<0.00001	<0.005	<0.005	0.00225	<0.005	<0.005	0.00014	0.0216	0.0014	0.00127	0.097	<0.0001	<0.001	0.099	<0.00001	39.5	0.0025	<0.0002
RSEM-R6W-EOP	6/4/2021 12:30	ZX6907	M	C138357	2.28	0.00398	3.75	<0.00002	96.7	0.234	64.8	<0.00001	<0.005	<0.005	0.00195	<0.005	<0.005	0.00016	0.0185	0.00119	0.00107	0.111	<0.0001	<0.001	0.091	<0.00001	40.4	0.0019	<0.0002
RSEM-R6W-EOP	6/5/2021 11:00	ZY0222	M	C138844	2.05	0.00355	3.3	<0.00002	82.8	0.232	54.4	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	0.00014	0.015	0.00095	0.00092	0.11	<0.0001	<0.001	0.081	<0.00001	38.4	0.0014	<0.0002
RSEM-R6W-EOP	6/6/2021 10:50	ZY0253	M	C138850	1.74	0.003	3.17	<0.00002	67.9	0.21	45.0	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	0.00014	0.0118	0.00079	0.00075	0.11	<0.0001	<0.001	0.07	<0.00001	41.8	<0.001	<0.0002
RSEM-R6W-EOP	6/7/2021 11:10	ZY3089	M	C139476	1.65	0.00276	2.8	<0.00002	58.0	0.229	38.1	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0111	0.00069	0.0007	0.117	<0.0001	<0.001	0.065	<0.00001	40.4	<0.001	<0.0002
RSEM-R6W-EOP	6/8/2021 11:40	ZY5039	M	C139835	1.89	0.00409	3.79	<0.00002	60.8	0.235	42.5	0.000011	<0.005	0.022	0.002	<0.005	<0.005	0.00084	0.0108	0.00074	0.00071	0.115	<0.0001	<0.001	0.073	<0.00001	44.1	<0.001	0.00021
RSEM-R6W-EOP	6/9/2021 13:50	ZY6854	M	C140198	1.97	0.00413	3.32	<0.00002	64.3	0.254	44.4	<0.00001	<0.005	0.0099	0.00205	<0.005	<0.005	0.0003	0.0138	0.00079	0.00079	0.116	<0.0001	<0.001	0.083	<0.00001	43.8	<0.001	<0.0002
RSEM-R6W-EOP	6/10/2021 12:05	ZY8800	M	C140527	1.93	0.00397	3.35	<0.00002	72.8	0.237	49.5	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	0.00016	0.0157	0.00098	0.00096	0.112	<0.0001	<0.001	0.075	0.000022	41.6	0.0012	<0.0002
RSEM-R6W-EOP	6/11/2021 14:20	ZY9644	M	C140675	1.83	0.00362	3.23	<0.00002	78.0	0.229	51.5	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	0.015	0.00099	0.00095	0.113	<0.0001	<0.001	0.076	<0.00001	40.3	0.0014	<0.0002
RSEM-R6W-EOP	6/12/2021 10:25	ZZ1989	M	C141056	1.87	0.00333	3.26	<0.00002	74.2	0.22	49.8	<0.00001	<0.005	0.0069	0.00162	<0.005	<0.005	0.00021	0.0128	0.00096	0.00094	0.112	<0.0001	<0.001	0.072	<0.00001	41.3	0.0014	<0.0002
RSEM-R6W-EOP	6/13/2021 14:15	ZZ1994	M	C141057	1.85	0.00316	3.38	<0.00002	70.4	0.224	47.2	<0.00001	<0.005	0.0053	0.0016	<0.005	<0.005	0.0003	0.0117	0.00097	0.00086	0.107	<0.0001	<0.001	0.074	<0.00001	40.5	0.0013	<0.0002
RSEM-R6W-EOP	6/13/2021 14:25	ZZ1995	D	C141057	1.88	0.00308	3.46	<0.00002	69.8	0.218	46.8	0.000011	<0.005	0.0077	0.0016	<0.005	<0.005	0.00087	0.0119	0.001	0.00088	0.107	<0.0001	<0.001	0.072	<0.00001	40.4	0.0013	<0.0002
RSEM-R6W-EOP	6/14/2021 10:40	ZZ2010	M	C141059	1.87	0.00289	3.41	<0.00002	70.1	0.218	47.8	<0.00001	<0.005	0.008	0.00155	<0.005	<0.005	0.0002	0.0117	0.00102	0.00087	0.113	<0.0001	<0.001	0.072	<0.00001	40.6	0.0014	<0.0002
RSEM-R6W-EOP	6/15/2021 11:40	AAB014	M	C142607	1.81	0.00253	3.59	<0.00002	62.8	0.199	42.4	<0.00001	<0.005	0.0079	0.00131	<0.005	<0.005	0.00029	0.0135	0.00086	0.00073	0.112	<0.0001	<0.001	0.074	<0.00001	40.4	0.0013	<0.0002
RSEM-R6W-EOP	6/16/2021 12:20	AAB003	M	C142604	1.67	0.0024	3.06	<0.00002	51.3	0.201	35.5	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	0.00011	0.0132	0.00077	0.00067	0.126	<0.0001	<0.001	0.068	<0.00001	40.6	<0.001	<0.0002
RSEM-R6W-EOP	6/17/2021 11:20	AAC474	M	C142866	2.75	0.00867	3.37	<0.00002	69.3	0.319	25.5	0.000017	<0.005	0.0083	0.00195	<0.005	<0.005	0.00046	0.0301	0.00092	0.00083	0.093	<0.0001	<0.001	0.087	<0.00001	42.2	0.0012	<0.0002
RSEM-R6W-EOP	6/18/2021 12:20	AAC476	M	C142867	3.50	0.00908	3.4	<0.00002	84.0	0.319	35.1	0.000013	<0.005	0.0054	0.00189	<0.005	<0.005	0.00042	0.0323	0.00123	0.0009	0.088	<0.0001	<0.001	0.1	<0.00001	42.3	0.0024	0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	6/19/2021 11:20	AAF585	M	C143352	2.96	0.0064	3.89	<0.00002	93.1	0.212	40.4	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	0.00013	0.0158	0.0013	0.00086	0.091	<0.0001	<0.001	0.098	<0.00001	40.3	0.0027	<0.0002
RSEM-R6W-EOP	6/20/2021 10:30	AAF490	M	C143330	2.65	0.00522	3.07	<0.00002	67.7	0.286	30.9	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	0.00022	0.036	0.00105	0.00079	0.096	<0.0001	<0.001	0.083	<0.00001	41.9	0.0021	<0.0002
RSEM-R6W-EOP	6/21/2021 6:00	AAF561	M	C143340	2.42	0.00466	2.94	<0.00002	59.6	0.279	27.4	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	0.00023	0.0344	0.00088	0.00069	0.094	<0.0001	<0.001	0.074	<0.00001	42.8	0.0016	<0.0002
RSEM-R6W-EOP	6/22/2021 14:25	AAL816	M	C144319	1.62	0.00325	2.92	<0.00002	45.7	0.175	14.8	0.000012	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.0255	0.00073	0.00049	0.107	<0.0001	<0.001	0.062	<0.00001	42.9	0.0011	<0.0002
RSEM-R6W-EOP	6/23/2021 14:35	AAO113	M	C144722	1.43	0.00276	1.58	<0.00002	44.3	0.169	19.2	0.000011	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	0.0243	0.00061	0.00049	0.103	<0.0001	<0.001	0.062	<0.00001	40.8	<0.001	<0.0002
RSEM-R6W-EOP	6/23/2021 14:45	AAO114	D	C144722	1.41	0.00262	1.54	<0.00002	43.5	0.169	17.5	0.000011	<0.005	<0.005	0.00102	<0.005	0.008	<0.0001	0.0247	0.00064	0.0005	0.103	<0.0001	<0.001	0.059	<0.00001	40.4	<0.001	<0.0002
RSEM-R6W-EOP	6/24/2021 14:45	AAQ176	M	C144970	1.25	0.00232	2.93	<0.00002	34.2	0.158	13.1	0.000015	<0.005	<0.005	0.00087	<0.005	<0.005	<0.0001	0.0287	0.00053	0.00044	0.11	<0.0001	<0.001	0.057	<0.00001	36.8	<0.001	<0.0002
RSEM-R6W-EOP	6/25/2021 13:10	AAQ537	M	C144894	1.13	0.00199	3.25	<0.00002	40.6	0.16	23.5	0.000012	<0.005	0.0056	0.00099	<0.005	<0.005	<0.0001	0.0162	<0.0005	0.00041	0.107	<0.0001	<0.001	<0.05	<0.00001	37.3	<0.001	<0.0002
RSEM-R6W-EOP	6/25/2021 13:10	AAP487	D	C144894	1.07	0.00177	3.08	<0.00002	39.7	0.154	19.3	0.000011	<0.005	<0.005	0.00094	<0.005	0.0066	<0.0001	0.0123	<0.0005	0.0004	0.108	<0.0001	<0.001	<0.05	<0.00001	37.6	<0.001	<0.0002
RSEM-R6W-EOP	6/26/2021 14:35	AAU431	M	C145599	1.09	0.00206	2.66	<0.00002	25.2	0.162	8.9	<0.00001	<0.005	<0.005	0.00089	<0.005	0.0063	0.00023	0.0209	0.00051	0.00043	0.122	<0.0001	<0.001	0.056	<0.00001	48.3	<0.001	<0.0002
RSEM-R6W-EOP	6/27/2021 13:20	AAU317	M	C145583	1.14	0.00215	2.73	<0.00002	26.3	0.157	9.9	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	<0.0001	0.0233	0.00057	0.00042	0.114	<0.0001	<0.001	0.054	<0.00001	49.1	<0.001	<0.0002
RSEM-R6W-EOP	6/27/2021 13:30	AAU318	D	C145583	1.16	0.00195	2.58	<0.00002	26.8	0.161	13.7	<0.00001	<0.005	<0.005	0.00089	<0.005	<0.005	<0.0001	0.02	0.00053	0.0004	0.112	<0.0001	<0.001	0.052	<0.00001	47.9	<0.001	<0.0002
RSEM-R6W-EOP	6/28/2021 13:35	AAX135	M	C146134	1.28	0.00179	2.68	<0.00002	29.9	0.16	10.7	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	0.00025	0.0169	0.00068	0.00047	0.119	<0.0001	<0.001	0.066	<0.00001	52.8	<0.001	<0.0002
RSEM-R6W-EOP	6/29/2021 15:10	AAZ026	M	C146532	1.39	0.00189	3.26	<0.00002	28.6	0.216	28.5	<0.00001	<0.005	<0.005	0.00084	<0.005	0.0067	<0.0001	0.104	<0.0005	0.00038	0.102	<0.0001	<0.001	<0.05	0.000011	41.9	<0.001	<0.0002
RSEM-R6W-EOP	6/30/2021 10:50	AAZ000	M	C146528	1.31	0.00189	3.2	<0.00002	27.2	0.208	25.9	<0.00001	<0.005	<0.005	0.00084	<0.005	0.0127	0.00011	0.096	<0.0005	0.00037	0.1	<0.0001	<0.001	<0.05	<0.00001	41.4	<0.001	<0.0002
RSEM-R6W-EOP	6/30/2021 11:00	AAZ001	D	C146528	1.31	0.00184	3.18	<0.00002	28.2	0.21	22.3	<0.00001	<0.005	<0.005	0.00084	<0.005	0.0063	<0.0001	0.109	<0.0005	0.00041	0.1	<0.0001	<0.001	<0.05	0.000022	42.1	<0.001	<0.0002
RSEM-R6W-EOP	7/1/2021 15:00	ABB250	M	C146903	1.35	0.00185	3.14	<0.00002	29.2	0.211	25.1	<0.00001	<0.005	<0.005	0.00081	<0.005	<0.005	<0.0001	0.103	0.00054	0.00049	0.101	<0.0001	<0.001	<0.05	0.000012	43.3	<0.001	0.00021
RSEM-R6W-EOP	7/2/2021 12:10	ABB258	M	C146905	1.44	0.0018	3.16	<0.00002	29.8	0.232	27.8	<0.00001	<0.005	<0.005	0.00083	<0.005	<0.005	<0.0001	0.13	0.00057	0.00045	0.103	<0.0001	<0.001	<0.05	0.000019	43.2	<0.001	0.00024
RSEM-R6W-EOP	7/2/2021 12:20	ABB260	D	C146905	1.46	0.00197	3.74	<0.00002	32.4	0.214	29.9	<0.00001	<0.005	<0.005	0.00086	<0.005	0.0059	0.00012	0.101	0.00058	0.00045	0.103	<0.0001	<0.001	<0.05	<0.00001	43.2	<0.001	0.00024
RSEM-R6W-EOP	7/3/2021 10:30	ABE024	M	C147272	1.48	0.00203	2.9	<0.00002	36.1	0.174	27.8	<0.00001	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001	0.0949	0.00067	0.00061	0.101	<0.0001	<0.001	<0.05	<0.00001	42.0	0.0012	0.00023
RSEM-R6W-EOP	7/4/2021 13:30	ABD991	M	C147267	1.58	0.00209	2.73	<0.00002	38.9	0.174	31.8	<0.00001	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	0.0804	0.00081	0.00052	0.111	<0.0001	<0.001	0.061	0.000011	41.3	0.0012	0.00025
RSEM-R6W-EOP	7/4/2021 13:40	ABD992	D	C147267	1.61	0.00213	2.76	<0.00002	39.1	0.177	30.6	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	0.0933	0.00078	0.00042	0.105	<0.0001	<0.001	0.055	<0.00001	41.3	0.0015	0.00028
RSEM-R6W-EOP	7/5/2021 9:25	ABG199	M	C147674	1.78	0.00228	2.92	<0.00002	43.9	0.176	34.3	<0.00001	<0.005	<0.005	0.0011	<0.005	0.0053	<0.0001	0.0845	0.00082	0.00062	0.096	<0.0001	<0.001	0.055	0.000012	41.0	0.0014	<0.0002
RSEM-R6W-EOP	7/6/2021 10:00	ABJ179	M	C148228	1.79	0.00235	2.77	<0.00002	39.3	0.191	32.6	<0.00001	<0.005	<0.005	0.00107	<0.005	<0.005	<0.0001	0.139	0.00087	0.00066	0.092	<0.0001	<0.001	0.065	<0.00001	41.7	0.0013	<0.0002
RSEM-R6W-EOP	7/7/2021 11:30	ABK532	M	C148516	1.93	0.00225	2.81	<0.00002	43.2	0.195	35.7	<0.00001	<0.005	<0.005	0.00112	<0.005	0.0085	0.00012	0.178	0.00093	0.00062	0.093	<0.0001	<0.001	0.05	<0.00001	38.1	0.0015	<0.0002
RSEM-R6W-EOP	7/8/2021 11:30	ABM761	M	C148925	1.94	0.00279	2.67	<0.00002	48.1	0.18	35.4	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001	0.0893	0.00098	0.00067	0.09	<0.0001	<0.001	0.061	<0.00001	40.3	0.0015	<0.0002
RSEM-R6W-EOP	7/9/2021 9:50	ABM748	M	C148923	1.91	0.00259	2.53	<0.00002	49.2	0.166	36.0	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	0.00011	0.0967	0.001	0.00066	0.09	<0.0001	<0.001	0.062	<0.00001	41.3	0.0015	<0.0002
RSEM-R6W-EOP	7/10/2021 10:00	ABP528	M	C149429	1.95	0.00294	2.52	<0.00002	50.4	0.179	38.5	0.000011	<0.005	<0.005	0.00125	<0.005	<0.005	0.00011	0.0809	0.00096	0.00068	0.091	<0.0001	<0.001	0.064	<0.00001	42.0	0.0014	<0.0002
RSEM-R6W-EOP	7/11/2021 10:00	ABP673	M	C149459	2.03	0.00293	2.58	<0.00002	56.3	0.179	39.3	0.00001	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	0.136	0.00103	0.00078	0.091	<0.0001	<0.001	0.066	<0.00001	43.5	0.0015	<0.0002
RSEM-R6W-EOP	7/12/2021 4:30	ABP854	M	C149486	2.11	0.00312	2.58	<0.00002	59.3	0.175	41.2	0.000012	<0.005	<0.005	0.00131	<0.005	<0.005	0.00017	0.111	0.00107	0.00074	0.089	<0.0001	<0.001	0.067	<0.00001	42.0	0.0015	<0.0002
RSEM-R6W-EOP	7/13/2021 15:20	ABU091	M	C150243	2.29	0.00286	2.57	<0.00002	62.7	0.197	47.2	<0.00001	<0.005	<0.005	0.0015	<0.005	0.0058	<0.0001	0.119	0.00126	0.00095	0.086	<0.0001	<0.001	0.07	0.00001	43.6	0.0016	<0.0002
RSEM-R6W-EOP	7/14/2021 13:45	ABX615	M	C150851	2.11	0.00277	2.52	<0.00002	56.4	0.183	43.6	0.000029	<0.005	<0.005	0.00153	<0.005	<0.005	0.00015	0.111	0.00129	0.00078	0.085	<0.0001	<0.001	0.066	<0.00001	42.6	0.0016	<0.0002
RSEM-R6W-EOP	7/15/2021 15:35	ABY388	M	C150960	2.05	0.00272	2.39	<0.00002	51.1	0.203	46.0	0.000013	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	0.122	0.00107	0.00093	0.083	<0.0001	<0.001	0.059	<0.00001	42.8	0.0014	<0.0002
RSEM-R6W-EOP	7/16/2021 13:00	ABZ187	M	C151029	1.84	0.0025	2.47	<0.00002	45.6	0.192	42.6	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0816	0.00107	0.00084	0.085	<0.0001	<0.001	0.05	<0.00001	43.6	0.0012	<0.0002
RSEM-R6W-EOP	7/17/2021 15:25	ACC246	M	C151542	1.51	0.00287	2.6	<0.00002	42.0	0.138	20.9	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.064	0.001	0.00079	0.092	<0.0001	<0.001	<0.05	0.000011	42.5	0.001	<0.0002
RSEM-R6W-EOP	7/18/2021 13:40	ACC416	M	C151549	1.57	0.00318	2.75	<0.00002	44.8	0.143	21.7	<0.00001	<0.005	<0.005	0.00112	<0.005	0.0051	<0.0001	0.687	0.00126	0.00096	0.122	<0.0001	<0.001	0.064	0.000013	44.0	0.0018	<0.0002
RSEM-R6W-EOP	7/18/2021 13:50	ACC417	D	C151549	1.60	0.0032	2.84	<0.00002	44.8	0.142	22.0	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	0.155	0.00122	0.00089	0.112	<0.0001	<0.001	0.051	<0.00001	41.7	0.0013	<0.0002
RSEM-R6W-EOP	7/19/2021 15:25	ACF037	M	C151946	1.89	0.00245	2.76	<0.00002	47.9	0.18	42.0	<0.00001	<0.005	<0.005	0.00135	<0.005	<0.005	0.00015	0.192	0.0014	0.00089	0.103	<0.0001	<0.001	0.054	0.00001	40.8	0.0014	<0.0002
RSEM-R6W-EOP	7/20/2021 14:50	ACH815	M	C152456	1.93	0.00264	2.89	<0.00002	57.8	0.16	38.1	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	0.0223	0.00119	0.00074	0.088	<0.0001	<0.001	0.08	<0.00001	41.9	0.0011	<0.0002
RSEM-R6W-EOP	7/21/2021 15:50	ACH933	M	C152481	1.79	0.00252	2.91	<0.00002	43.7	0.155	20.3	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	0.0208	0.00113	0.0006	0.08	<0.0001	<0.001	0.073	<0.00001	42.7	0.001	<0.0002
RSEM-R6W-EOP	7/22/2021 17:25	ACL554	M	C152988	4.31	0.00322	2.89	<0.00002	43.9	0.582	46.7	0.000019	<0.005	0.0066	0.0019	<0.005	<0.005	0.00023	0.0233	0.00095	0.0007	0.093	<0.0001	<0.001	0.117	0.000012	90.6	<0.001	0.00029
RSEM-R6W-EOP	7/23/2021 11:50	ACL701	M	C153012	2.09	0.00504	3.11	<0.00002	59.6	0.182	20.8	0.000011	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0604	0.00134	0.00093	0.108	<0.0001	<0.001	0.091	<0.00001	43.1	0.0012	<0.0002
RSEM-R6W-EOP	7/24/2021 14:50	ACO407	M	C153513	2.16	0.00422	3.4	<0.00002	69.2	0.203	49.8	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.0467	0.00143	0.00079	0.097	<0.0001	<0.001	0.088	<0.00001	43.5	0.0014	<0.0002
RSEM-R6W-EOP	7/25/2021 14:10	ACO190	M	C153467	2.12	0.00346	2.94	<0.00002	65.9	0.194	37.8	0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0302	0.00124	0.00065	0.085	<0.0001	<0.001	0.106	<0.00001	48.3	0.0012	0.0002
RSEM-R6W-EOP	7/26/2021 10:45	ACN521	M	C153324	2.71	0.00445	3.35	<0.00002	95.7	0.262	79.9	<0.00001	<0.005	<0.005	0.00208	<0.005	<0.005	<0.0001		0.00144	0.00099	0.087	<0.0001	<0.001	0.128	0.000013	52.5		
RSEM-R6W-EOP	7/27/2021 11:20	ACT044	M	C154246	2.14	0.0043	2.94	<0.00002	75.0	0.241	68.9	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0115	0.00096	0.00065	0.075	<0.0001	<0.001	0.113	<0.00001	54.3	<0.001	0.00022
RSEM-R6W-EOP	7/28/2021 12:20	ACV590	M	C154699	1.91	0.00402	2.69	<0.00002	62.1	0.241	61.9	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	0.0096	0.00088	0.00067	0.087	<0.0001	<0.001	0.075	<0.00001	55.1	<0.001	<0.0002
RSEM-R6W-EOP	7/29/2021 12:00	ACY652	M	C155287	1.77	0.00378	2.61	<0.00002	56.3	0.236	58.1	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0087	0.00072	0.00055	0.085	<0.0001	<0.001	0.07	<0.00001	54.6	<0.001	<0.0002
RSEM-R6W-EOP	7/30/2021 10:40	ACY654	M	C155288	1.65	0.00377	2.67	<0.00002	50.0	0.233	54.8	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.008	0.00055	0.00046	0.089	<0.0001	<0.001	0.059	0.000014	61.4	<0.001	<0.0002
RSEM-R6W-EOP	7/31/2021 12:00	ADA374	M	C155508	1.61	0.00284	2.68	<0.00002	49.0	0.204	48.5	<0.00001	<0.005	<0.005	0.00147	<0.005	0.0053	<0.0001	0.0079	<0.0005	0.00042	0.082	<0.0001	<0.001	0.058	<0.00001	57.2	<0.001	<0.0002
RSEM-R6W-EOP	8/1/2021 10:40	ADC692	M	C155924	1.61	0.00331	2.45	<0.00002	52.5	0.23	55.7	<0.00001	<0.005	<0.005	0.00146	<0.005	0.0061	<0.0001	0.0071	<0.0005	0.00038	0.076	<0.0001	<0.001	0.067	<0.00001	53.4	<0.001	<0.0002
RSEM-R6W-EOP	8/2/2021 5:40	ADC745	M	C155936	1.73	0.00367	2.53	<0.00002	58.0	0.246	58.4	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	0.00011	0.0077	0.00055	0.00044	0.084	<0.0001	<0.001	0.06	<0.00001	59.8	<0.001	<0.0002
RSEM-R6W-EOP	8/5/2021 11:05	ADK135	M	C157133	1.93	0.00341	2.71	<0.00002	69.2	0.247	62.5	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0125	0.00064	0.00056	0.081	<0.0001	<0.001	0.081	0.000019	58.2	<0.001	<0.0002
RSEM-R6W-EOP	8/6/2021 11:50	ADK123	M	C157131	2.01	0.0043	2.71	<0.00002	72.2	0.258	63.6	<0.00001	<0.005	<0.005	0.0018	<0.005	<0.005	<0.0001	0.0088	0.00063	0.00056	0.085	<0.0001	<0.001	0.083	0.00001	53.9	<0.001	<0.0002
RSEM-R6W-EOP	8/7/2021 11:45	ADM458	M	C157545	2.16	0.00483	2.74	<0.00002	75.8	0.254	66.0	<0.00001	<0.005	<0.005	0.002	<0.005	0.0063	<0.0001	0.0487	0.00093	0.00092	0.098	<0.0001	<0.001	0.089	<0.00001	55.4	<0.001	<0.0002
RSEM-R6W-EOP	8/8/2021 12:40	ADN232	M	C157651	2.06	0.00483	2.73	<0.00002	78.0	0.208	58.7	<0.00001	<0.005	<0.005	0.00181	<0.005	0.0051	<0.0001	0.0128	0.00076	0.00079	0.085	<0.0001	<0.001	0.1	<0.00001	53.5	<0.001	<0.0002
RSEM-R6W-EOP	8/9/2021 11:55	ADM368	M	C157523	2.62	0.00538	3.06	<0.00002	99.6	0.266	75.2	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.0105	0.00091	0.00079	0.087	<0.0001	<0.001	0.1	<0.00001	50.0	<0.001	<0.0002
RSEM-R6W-EOP	8/10/2021 11:00	ADP900	M	C158211	2.21	0.00466	2.65	<0.00002	81.9	0.206	54.1	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0113	0.0009	0.00076	0.074	<0.0001	<0.001	0.109	<0.00001	53.1	<0.001	<0.0002
RSEM-R6W-EOP	8/11/2021 12:50	ADR989	M	C158615	2.34	0.00472	2.72	<0.00002	85.7	0.218	53.5	0.000011	<0.005	<0.005	0.00177	<0.005	0.006	<0.0001	0.0124	0.00089	0.00068	0.071	<0.0001	<0.001	0.11	<0.00001	53.6	<0.001	<0.0002
RSEM-R6W-EOP	8/12/2021 11:50	ADU539	M	C159104	2.28	0.00453	2.6	<0.00002	81.9	0.211	53.0	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0151	0.00134	0.00087	0.087	<0.0001	<0.001	0.125	<0.00001	59.2	0.0011	<0.0002
RSEM-R6W-EOP	8/13/2021 11:00	ADU546	M	C159105	2.74	0.00505	2.9	<0.00002	98.8	0.279	85.6	<0.00001	<0.005	<0.005	0.00192	<0.005	<0.005	<0.0001	0.0129	0.00106	0.00071	0.074	<0.0001	<0.001	0.099	<0.00001	51.8	<0.001	<0.0002
RSEM-R6W-EOP	8/14/2021 11:30	ADW201	M	C159435	2.55	0.00453	2.61	<0.00002	87.5	0.264	77.5	<0.00001	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001	0.0145	0.0011	0.00064	0.076	<0.0001	<0.001	0.096	<0.00001	54.4	<0.001	<0.0002
RSEM-R6W-EOP	8/15/2021 11:50	ADW428	M	C159489	2.71	0.00441	2.53	<0.00002	88.6	0.285	80.0	<0.00001	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001	0.0155	0.00117	0.0006	0.078	<0.0001	<0.001	0.1	<0.00001	59.4	<0.001	<0.0002
RSEM-R6W-EOP	8/16/2021 11:50	ADY263	M	C159861	2.78	0.00491	2.6	<0.00002	86.6	0.279	81.2	0.000011	<0.005	<0.005	0.00197	<0.005	0.0057	0.00017	0.0172	0.00113	0.00062	0.078	<0.0001	<0.001	0.096	<0.00001	57.9	<0.001	<0.0002
RSEM-R6W-EOP	8/17/2021 11:50	AED546	M	C160795	2.81	0.00532	2.48	<0.00002	90.3	0.249	76.5	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	0.0177	0.00116	0.00056	0.073	<0.0001	<0.001	0.09	<0.00001	54.1	0.001	<0.0002
RSEM-R6W-EOP	8/18/2021 11:30	AED517	M	C160793	2.95	0.00499	2.43	<0.00002	93.8	0.251	78.7	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	0.0237	0.00116	0.00055	0.078	<0.0001	<0.001	0.093	<0.00001	51.3	<0.001	<0.0002
RSEM-R6W-EOP	8/19/2021 14:10	AEF598	M	C161077	2.86	0.00477	2.39	<0.00002	76.8	0.247	75.9	0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	0.0231	0.00132	0.0006	0.079	<0.0001	<0.001	0.093	<0.00001	65.4	0.0011	<0.0002
RSEM-R6W-EOP	8/20/2021 10:20	AEF523	M	C161059	2.91	0.00491	2.38	<0.00002	87.9	0.243	70.9	0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	0.0266	0.00114	0.00056	0.078	<0.0001	<0.001	0.097	<0.00001	50.4	0.0012	<0.0002
RSEM-R6W-EOP	8/21/2021 11:00	AEI349	M	C161420	2.73	0.00491	2.27	<0.00002	66.1	0.247	70.4	<0.00001	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001	0.0299	0.00123	0.00059	0.075	<0.0001	<0.001	0.108	<0.00001	47.4	0.0011	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	8/22/2021 12:20	AEI411	M	C161433	3.04	0.00397	2.43	<0.00002	70.9	0.276	58.8	0.000015	<0.005	0.0091	0.00177	<0.005	<0.005	0.00016	0.0218	0.00143	0.00078	0.101	<0.0001	<0.001	0.08	<0.00001	47.3	0.0014	<0.0002
RSEM-R6W-EOP	8/23/2021 11:30	AEL591	M	C161925	3.20	0.00741	2.35	<0.00002	76.2	0.305	59.5	0.000011	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.0197	0.00146	0.00075	0.095	<0.0001	<0.001	0.104	<0.00001	45.5	0.0012	<0.0002
RSEM-R6W-EOP	8/24/2021 17:05	AEN130	M	C162291	3.57	0.00794	2.48	<0.00002	85.4	0.339	70.5	0.000012	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	0.0401	0.00179	0.00077	0.101	<0.0001	<0.001	0.147	0.000012	52.6	0.0015	0.00054
RSEM-R6W-EOP	8/25/2021 16:45	AEP241	M	C162703	3.70	0.00511	2.33	<0.00002	77.0	0.428	63.2	0.000011	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	0.0556	0.00128	0.00064	0.082	<0.0001	<0.001	0.082	0.000024	52.9	0.0017	0.00079
RSEM-R6W-EOP	8/26/2021 10:30	AER554	M	C163145	3.69	0.00554	2.53	<0.00002	80.6	0.415	79	0.000014	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001	0.0594	0.00139	0.00067	0.079	<0.0001	<0.001	0.085	0.000027	59.3	0.0015	0.00098
RSEM-R6W-EOP	8/27/2021 10:25	AER547	M	C163144	3.66	0.0054	2.24	<0.00002	80.3	0.473	86.4	0.000012	<0.005	<0.005	0.00196	<0.005	<0.005	<0.0001	0.0529	0.00128	0.00056	0.073	<0.0001	<0.001	0.097	0.000017	64.5	0.0012	0.00075
RSEM-R6W-EOP	8/28/2021 11:10	AEV124	M	C163811	2.81	0.00477	1.91	<0.00002	75.0	0.339	67.3	0.000013	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0443	0.00107	0.00048	0.065	<0.0001	<0.001	0.104	0.00001	66.0	0.0011	0.00048
RSEM-R6W-EOP	8/29/2021 10:05	AEV011	M	C163786	2.99	0.00561	2.28	<0.00002	74.9	0.392	86.5	0.000013	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.0383	0.00092	0.00044	0.061	<0.0001	<0.001	0.099	<0.00001	62.3	<0.001	<0.0002
RSEM-R6W-EOP	8/30/2021 10:15	AEX829	M	C164176	2.43	0.00408	1.85	<0.00002	69.3	0.324	72.9	0.000011	<0.005	<0.005	0.00133	<0.005	<0.005	0.00023	0.0302	0.00094	0.00038	0.065	<0.0001	<0.001	0.095	<0.00001	68.6	<0.001	0.00025
RSEM-R6W-EOP	8/31/2021 16:45	AFA832	M	C164798	2.52	0.00422	1.93	<0.00002	74.9	0.337	75.5	0.000018	<0.005	<0.005	0.00142	<0.005	0.0093	<0.0001	0.0268	0.00094	0.00034	0.064	<0.0001	<0.001	0.098	<0.00001	70.8	<0.001	0.00031
RSEM-R6W-EOP	9/1/2021 15:50	AFC995	M	C165103	2.54	0.00424	2.03	<0.00002	79.0	0.38	89.1	0.000011	<0.005	<0.005	0.00148	<0.005	<0.005	0.00011	0.024	0.00092	0.00032	0.063	<0.0001	<0.001	0.094	0.000011	73.4	<0.001	0.00038
RSEM-R6W-EOP	9/2/2021 11:20	AFF607	M	C165563	2.70	0.00429	1.89	<0.00002	77.3	0.382	76.5	0.000013	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.0228	0.00087	0.0003	0.062	<0.0001	<0.001	0.094	0.000013	72.5	<0.001	0.00047
RSEM-R6W-EOP	9/3/2021 11:25	AFF869	M	C165588	2.90	0.00349	1.96	<0.00002	75.7	0.378	91.7	0.000015	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.0254	0.0009	0.00033	0.068	<0.0001	<0.001	0.096	0.00001	71.4	<0.001	0.00051
RSEM-R6W-EOP	9/4/2021 16:20	AFH289	M	C165785	3.50	0.00313	2.33	<0.00002	76.3	0.47	103	0.000016	<0.005	<0.005	0.00234	<0.005	<0.005	<0.0001	0.0245	0.00091	0.00038	0.066	<0.0001	<0.001	0.096	<0.00001	70.0	<0.001	0.00044
RSEM-R6W-EOP	9/5/2021 14:10	AFI824	M	C166081	2.94	0.0031	1.86	<0.00002	67.2	0.406	96.2	0.000012	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	0.0218	0.0008	0.0003	0.058	<0.0001	<0.001	0.096	<0.00001	70.6	<0.001	0.00034
RSEM-R6W-EOP	9/6/2021 12:25	AFI719	M	C166063	3.47	0.00322	2.08	<0.00002	73.3	0.445	89.0	0.000012	<0.005	0.0063	0.00201	<0.005	<0.005	<0.0001	0.0222	0.00077	0.00027	0.055	<0.0001	<0.001	0.1	<0.00001	67.4	<0.001	<0.0002
RSEM-R6W-EOP	9/7/2021 12:00	AFL345	M	C166557	3.30	0.00309	1.96	<0.00002	71.3	0.414	84.3	0.000012	<0.005	<0.005	0.00191	<0.005	<0.005	<0.0001	0.0204	0.00073	0.00026	0.053	<0.0001	<0.001	0.095	<0.00001	64.0	<0.001	<0.0002
RSEM-R6W-EOP	9/8/2021 11:20	AFO057	M	C167059	3.09	0.00397	2.05	<0.00002	74.0	0.377	93.4	0.000013	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001	0.0188	0.00083	0.00031	0.056	<0.0001	<0.001	0.081	<0.00001	57.1	<0.001	<0.0002
RSEM-R6W-EOP	9/9/2021 11:40	AFQ845	M	C167445	2.96	0.00351	2.09	<0.00002	72.6	0.357	89.0	0.000013	<0.005	<0.005	0.00192	<0.005	<0.005	<0.0001	0.0172	0.00086	0.00028	0.058	<0.0001	<0.001	0.086	<0.00001	57.5	<0.001	<0.0002
RSEM-R6W-EOP	9/10/2021 10:20	AFQ881	M	C167449	2.88	0.00357	2.06	<0.00002	72.3	0.34	82.3	0.000012	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.017	0.00087	0.00034	0.058	<0.0001	<0.001	0.088	<0.00001	56.1	<0.001	<0.0002
RSEM-R6W-EOP	9/11/2021 12:20	AFV353	M	C168029	2.73	0.00323	1.98	<0.00002	68.5	0.315	81.9	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	0.0172	0.0008	0.00037	0.054	<0.0001	<0.001	0.083	<0.00001	50.7	<0.001	<0.0002
RSEM-R6W-EOP	9/12/2021 13:20	AFV417	M	C168037	2.99	0.00324	2.02	<0.00002	77.5	0.34	84.1	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	0.0166	0.00087	0.00044	0.051	<0.0001	<0.001	0.087	<0.00001	47.2	<0.001	<0.0002
RSEM-R6W-EOP	9/13/2021 5:20	AFV244	M	C168020	3.08	0.00319	2.12	<0.00002	84.3	0.342	86.3	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.0194	0.00104	0.00044	0.058	<0.0001	<0.001	0.122	<0.00001	45.9	<0.001	<0.0002
RSEM-R6W-EOP	9/14/2021 16:40	AGB016	M	C169017	2.82	0.00275	2.04	<0.00002	82.4	0.297	75.4	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	0.0187	0.00098	0.0005	0.054	<0.0001	<0.001	0.097	<0.00001	46.3	<0.001	<0.0002
RSEM-R6W-EOP	9/14/2021 16:50	AGB017	D	C169017	2.78	0.00295	2.02	<0.00002	81.3	0.29	74.7	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	0.0185	0.00104	0.00055	0.054	<0.0001	<0.001	0.097	<0.00001	45.7	<0.001	<0.0002
RSEM-R6W-EOP	9/15/2021 10:30	AGD165	M	C169361	2.87	0.00285	2.05	<0.00002	86.4	0.286	75.4	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	0.0183	0.00113	0.0005	0.058	<0.0001	<0.001	0.108	<0.00001	44.1	<0.001	<0.0002
RSEM-R6W-EOP	9/16/2021 12:55	AGG329	M	C169805	3.01	0.00298	2.19	<0.00002	90.7	0.302	83.3	0.000011	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	0.0184	0.00109	0.00056	0.056	<0.0001	<0.001	0.108	<0.00001	44.2	0.0015	<0.0002
RSEM-R6W-EOP	9/17/2021 10:50	AGG308	M	C169799	3.03	0.00325	2.23	<0.00002	92.3	0.299	80.1	0.000011	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001	0.0196	0.00109	0.0005	0.054	<0.0001	<0.001	0.111	<0.00001	42.7	0.001	<0.0002
RSEM-R6W-EOP	9/18/2021 12:20	AGJ634	M	C170329	3.10	0.00196	2.56	<0.00002	97.6	0.29	83.8	<0.00001	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	0.022	0.00124	0.00058	0.058	<0.0001	<0.001	0.111	<0.00001	41.1	0.001	<0.0002
RSEM-R6W-EOP	9/19/2021 11:20	AGJ665	M	C170331	2.83	0.00311	2.65	<0.00002	85.3	0.269	73.1	<0.00001	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001	0.0245	0.00109	0.00058	0.058	<0.0001	<0.001	0.1	<0.00001	39.5	<0.001	<0.0002
RSEM-R6W-EOP	9/20/2021 10:40	AGM221	M	C170680	2.90	0.00156	2.67	<0.00002	89.5	0.272	74.7	<0.00001	<0.005	<0.005	0.0018	<0.005	<0.005	<0.0001	0.025	0.00101	0.00063	0.059	<0.0001	<0.001	0.102	<0.00001	38.5	0.001	<0.0002
RSEM-R6W-EOP	9/21/2021 11:20	AGO664	M	C171134	2.79	0.0028	2.57	<0.00002	83.9	0.269	70.8	<0.00001	<0.005	<0.005	0.00189	<0.005	0.0083	<0.0001	0.026	0.00092	0.00052	0.061	<0.0001	<0.001	0.099	<0.00001	38.8	<0.001	<0.0002
RSEM-R6W-EOP	9/22/2021 11:05	AGR065	M	C171568	2.56	0.00244	2.56	<0.00002	74.2	0.262	60.0	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	0.0261	0.00088	0.00057	0.061	<0.0001	<0.001	0.092	<0.00001	37.5	<0.001	<0.0002
RSEM-R6W-EOP	9/23/2021 16:35	AGT565	M	C171954	2.36	0.00268	2.49	<0.00002	68.2	0.249	55.0	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0254	0.00073	0.00053	0.057	<0.0001	<0.001	0.094	<0.00001	35.9	<0.001	<0.0002
RSEM-R6W-EOP	9/24/2021 12:55	AGV850	M	C172263	2.33	0.00144	3.08	<0.00002	64.7	0.242	54.0	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	0.0257	0.00063	0.00055	0.057	<0.0001	<0.001	0.088	<0.00001	37.4	<0.001	<0.0002
RSEM-R6W-EOP	9/25/2021 15:55	AGX496	M	C172580	2.41	0.0033	2.6	<0.00002	70.7	0.249	57.6	0.00002	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	0.0262	0.00067	0.00062	0.052	<0.0001	<0.001	0.087	<0.00001	35.6	<0.001	<0.0002
RSEM-R6W-EOP	9/26/2021 15:30	AGX366	M	C172552	2.21	0.00265	2.3	<0.00002	64.4	0.232	51.4	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.0255	0.00065	0.00062	0.051	<0.0001	<0.001	0.083	<0.00001	35.5	<0.001	<0.0002
RSEM-R6W-EOP	9/27/2021 11:40	AGZ868	M	C172958	2.43	0.00297	2.44	<0.00002	71.4	0.255	50.0	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	0.0271	0.00063	0.00056	0.054	<0.0001	<0.001	0.093	<0.00001	36.9	0.0011	<0.0002
RSEM-R6W-EOP	9/28/2021 11:30	AHC016	M	C173431	2.30	0.00252	2.27	<0.00002	69.6	0.218	48.4	<0.00001	<0.005	<0.005	0.00174	<0.005	0.0077	<0.0001	0.0257	0.00064	0.00053	0.051	<0.0001	<0.001	0.091	<0.00001	36.3	0.0012	<0.0002
RSEM-R6W-EOP	9/29/2021 12:30	AHF733	M	C174181	1.94	0.00286	4.1	<0.00002	97.6	0.184	40.8	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0263	0.00059	0.00061	0.048	<0.0001	<0.001	0.097	<0.00001	35.9	<0.001	<0.0002
RSEM-R6W-EOP	9/30/2021 11:10	AHF783	M	C174188	2.37	0.00289	4.04	<0.00002	115	0.216	50.7	0.000038	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	0.0278	0.0006	0.00059	0.047	<0.0001	<0.001	0.11	<0.00001	36.0	<0.001	<0.0002
RSEM-R6W-EOP	10/1/2021 12:30	AHF786	M	C174189	2.40	0.00259	3.74	<0.00002	113	0.212	51.4	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0302	0.00059	0.00066	0.045	<0.0001	<0.001	0.11	<0.00001	34.7	<0.001	<0.0002
RSEM-R6W-EOP	10/2/2021 11:00	AHI563	M	C174687	2.47	0.00238	3.99	<0.00002	124	0.213	52.0	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.0309	0.00059	0.00064	0.044	<0.0001	<0.001	0.107	<0.00001	34.0	<0.001	<0.0002
RSEM-R6W-EOP	10/3/2021 12:30	AHI567	M	C174689	2.41	0.00115	3.67	<0.00002	120	0.208	49.5	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.0325	0.00058	0.0007	0.044	<0.0001	<0.001	0.109	<0.00001	34.8	<0.001	<0.0002
RSEM-R6W-EOP	10/4/2021 8:30	AHI554	M	C174685	2.45	0.00116	3.5	<0.00002	115	0.211	50.1	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0309	0.00064	0.0006	0.043	<0.0001	<0.001	0.108	<0.00001	34.2	<0.001	<0.0002
RSEM-R6W-EOP	10/5/2021 14:40	AHO716	M	C175650	2.35	0.00254	2.4	<0.00002	73.7	0.185	54.0	<0.00001	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	0.026	<0.0025	<0.0005	0.041	<0.0005	<0.005	<0.25	<0.00005	31.5	<0.005	<0.001
RSEM-R6W-EOP	10/6/2021 11:30	AHR785	M	C176098	2.67	0.00132	2.69	<0.00002	77.6	0.209	51.3	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.0246	<0.0005	0.00047	0.038	<0.0001	<0.001	0.08	<0.00001	30.2	<0.001	<0.0002
RSEM-R6W-EOP	10/7/2021 17:30	AHU812	M	C176559	2.21	0.0017	2.17	<0.00002	73.0	0.187	38.8	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	0.00013	0.024	0.00054	0.00051	0.039	<0.0001	<0.001	0.073	<0.00001	30.7	<0.001	<0.0002
RSEM-R6W-EOP	10/8/2021 10:55	AHU798	M	C176557	2.18	0.00133	2.08	<0.00002	72.8	0.182	39.0	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	0.00012	0.0237	0.00054	0.0005	0.038	<0.0001	<0.001	0.071	<0.00001	30.4	<0.001	<0.0002
RSEM-R6W-EOP	10/9/2021 12:00	AHX007	M	C176838	2.44	0.00101	2.88	<0.00002	71.1	0.205	51.0	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0263	0.00062	0.00055	0.038	<0.0001	<0.001	0.088	<0.00001	29.7	0.0014	<0.0002
RSEM-R6W-EOP	10/10/2021 12:50	AHX001	M	C176837	2.30	0.00089	2.62	<0.00002	66.1	0.19	46.3	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0148	0.00065	0.00056	0.043	<0.0001	<0.001	0.089	<0.00001	33.8	<0.001	<0.0002
RSEM-R6W-EOP	10/11/2021 14:40	AHY662	M	C177084	2.67	0.00144	2.87	<0.00002	74.3	0.197	43.9	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	0.0175	0.00063	0.00047	0.042	<0.0001	<0.001	0.07	<0.00001	35.5	<0.001	<0.0002
RSEM-R6W-EOP	10/12/2021 16:00	AIB244	M	C177600	2.35	0.00148	2.06	<0.00002	69.8	0.181	32.8	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	0.00026	0.0172	0.00068	0.00047	0.04	<0.0001	<0.001	0.071	<0.00001	31.7	<0.001	<0.0002
RSEM-R6W-EOP	10/13/2021 11:50	AIE376	M	C178189	2.15	0.00138	2	<0.00002	61.4	0.155	12.8	0.000011	<0.005	<0.005	0.00152	<0.005	<0.005	0.00012	0.0193	0.00073	0.00047	0.041	<0.0001	<0.001	0.083	<0.00001	33.1	0.001	<0.0002
RSEM-R6W-EOP	10/14/2021 10:50	AIG809	M	C178651	2.11	0.00135	1.98	<0.00002	58.8	0.141	13.9	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001	0.0218	0.00074	0.00051	0.038	<0.0001	<0.001	0.094	<0.00001	27.1	0.001	<0.0002
RSEM-R6W-EOP	10/15/2021 11:20	AII742	M	C178993	2.69	0.00098	3.18	<0.00002	71.7	0.185	46.5	<0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0213	0.00097	0.00065	0.039	<0.0001	<0.001	0.092	<0.00001	28.5	0.0013	<0.0002
RSEM-R6W-EOP	10/16/2021 14:30	AIL331	M	C179338	2.40	0.00108	2.28	<0.00002	62.9	0.139	11.8	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	0.0166	0.00098	0.00052	0.035	<0.0001	<0.001	0.098	<0.00001	24.6	0.0018	<0.0002
RSEM-R6W-EOP	10/17/2021 14:30	AIL270	M	C179325	2.27	0.00118	2.35	<0.00002	62.3	0.134	13.7	0.000012	<0.005	<0.005	0.00124	<0.005	<0.005	0.00015	0.0162	0.00099	0.0004	0.035	<0.0001	<0.001	0.109	<0.00001	24.2	0.0018	<0.0002
RSEM-R6W-EOP	10/18/2021 10:05	AIL343	M	C179344	2.42	0.0012	2.38	<0.00002	63.2	0.136	12.5	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	0.0001	0.0154	0.00101	0.00049	0.034	<0.0001	<0.001	0.097	<0.00001	25.0	0.002	<0.0002
RSEM-R6W-EOP	10/19/2021 12:30	AIR752	M	C180384	2.90	0.00096	3.61	<0.00002	71.5	0.19	46.6	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	0.0247	0.00103	0.00039	0.033	<0.0001	<0.001	0.11	0.000018	24.5	0.002	<0.0002
RSEM-R6W-EOP	10/20/2021 12:30	AIT535	M	C180689	2.85	0.00097	3.51	<0.00002	73.9	0.176	45.7	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	0.00015	0.0153	0.00118	0.00056	0.035	<0.0001	<0.001	0.092	<0.00001	26.1	0.002	<0.0002
RSEM-R6W-EOP	10/21/2021 11:30	AIW013	M	C181069	2.68	0.00102	3.74	<0.00002	70.6	0.168	44.1	0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	0.00016	0.0142	0.00122	0.00056	0.035	<0.0001	<0.001	0.09	<0.00001	25.9	0.002	<0.0002
RSEM-R6W-EOP	10/22/2021 10:30	AIW018	M	C181072	2.79	0.00104	4.02	<0.00002	74.6	0.17	45.0	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	0.0145	0.00118	0.00055	0.035	<0.0001	<0.001	0.089	<0.00001	25.1	0.0022	<0.0002
RSEM-R6W-EOP	10/23/2021 11:00	AIZ372	M	C181550	2.65	0.00088	4.08	<0.00002	67.2	0.167	40.6	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	0.0148	0.00115	0.00059	0.037	<0.0001	<0.001	0.085	<0.00001	25.8	0.0023	<0.0002
RSEM-R6W-EOP	10/24/2021 11:30	AIZ352	M	C181544	2.45	0.00088	4.52	<0.00002	62.1	0.145	36.9	0.000014	<0.005	<0.005	0.00101	<0.005	0.0073	<0.0001	0.0146	0.00114	0.00059	0.046	<0.0001	<0.001	0.077	<0.00001	29.1	0.0022	<0.0002
RSEM-R6W-EOP	10/25/2021 6:00	AIZ359	M	C181547	2.34	0.00083	4.27	<0.00002	57.7	0.143	35.3	<0.00001	<0.005	<0.005	0.00101	<0.005	0.0066	<0.0001	0.0148	0.00108	0.00061	0.05	<0.0001	<0.001	0.074	<0.00001	29.9	0.0021	<0.0002

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	10/26/2021 10:40	AJF138	M	C182473	2.43	0.00086	4.76	<0.00002	56.3	0.138	35.6	<0.00001	<0.005	<0.005	0.00106	<0.005	0.0068	<0.0001	0.0134	0.00108	0.00067	0.055	<0.0001	<0.001	0.068	<0.00001	33.2	0.0021	<0.0002
RSEM-R6W-EOP	10/27/2021 14:40	AJH725	M	C182990	2.38	0.00091	4.52	<0.00002	51.3	0.134	34.0	<0.00001	<0.005	<0.005	0.0011	<0.005	0.0068	<0.0001	0.0168	0.00111	0.0007	0.057	<0.0001	<0.001	0.064	<0.00001	35.0	0.002	<0.0002
RSEM-R6W-EOP	10/28/2021 15:50	AJL909	M	C183658	2.41	0.00092	4.75	<0.00002	50.2	0.137	34.1	<0.00001	<0.005	<0.005	0.00117	<0.005	0.0065	0.00032	0.0127	0.00104	0.00067	0.059	<0.0001	<0.001	0.062	<0.00001	34.3	0.0019	<0.0002
RSEM-R6W-EOP	10/29/2021 11:20	AJL061	M	C183557	2.47	0.00092	5.01	<0.00002	47.2	0.141	33.3	<0.00001	<0.005	<0.005	0.00126	<0.005	0.0075	<0.0001	0.0121	0.00093	0.00065	0.063	<0.0001	<0.001	0.058	<0.00001	35.9	0.0017	<0.0002
RSEM-R6W-EOP	10/30/2021 12:10	AJO164	M	C184013	2.49	0.00102	4.91	<0.00002	46.3	0.14	33.7	<0.00001	<0.005	<0.005	0.0013	<0.005	0.0073	<0.0001	0.013	0.0009	0.00066	0.067	<0.0001	<0.001	0.06	<0.00001	38.8	0.0017	<0.0002
RSEM-R6W-EOP	10/31/2021 11:50	AJO161	M	C184012	2.50	0.00101	4.92	<0.00002	45.3	0.138	32.5	<0.00001	<0.005	<0.005	0.00135	<0.005	0.0092	<0.0001	0.0141	0.00092	0.00067	0.067	<0.0001	<0.001	0.06	<0.00001	38.8	0.0017	<0.0002
RSEM-R6W-EOP	11/1/2021 14:30	AJS228	M	C184600	2.27	0.0017	4.05	<0.00002	43.4	0.133	26.8	<0.00001	<0.005	<0.005	0.00129	<0.005	0.0064	<0.0001	0.0133	0.0008	0.00052	0.068	<0.0001	<0.001	0.061	<0.00001	41.7	0.0019	<0.0002
RSEM-R6W-EOP	11/2/2021 14:55	AJU790	M	C184881	2.35	0.00164	4.09	<0.00002	42.8	0.142	32.5	<0.00001	<0.005	<0.005	0.00133	<0.005	0.007	<0.0001	0.0159	0.00079	0.00052	0.071	<0.0001	<0.001	0.056	<0.00001	44.8	0.0015	<0.0002
RSEM-R6W-EOP	11/3/2021 12:30	AJX284	M	C185315	2.37	0.00178	3.92	<0.00002	39.8	0.141	23.7	<0.00001	<0.005	<0.005	0.00136	<0.005	0.0077	<0.0001	0.0179	0.00071	0.00051	0.077	<0.0001	<0.001	0.059	<0.00001	44.1	0.0015	<0.0002
RSEM-R6W-EOP	11/4/2021 11:05	AKA062	M	C185756	2.37	0.00181	3.94	<0.00002	38.2	0.144	23.5	<0.00001	<0.005	<0.005	0.00143	<0.005	0.0087	<0.0001	0.0172	0.00065	0.00047	0.081	<0.0001	<0.001	0.05	<0.00001	45.3	0.0014	<0.0002
RSEM-R6W-EOP	11/5/2021 11:25	AKA066	M	C185757	2.33	0.00185	3.9	<0.00002	35.2	0.143	23.0	<0.00001	<0.005	<0.005	0.00144	<0.005	0.0102	<0.0001	0.0158	0.00059	0.00042	0.086	<0.0001	<0.001	<0.05	<0.00001	47.1	0.0012	<0.0002
RSEM-R6W-EOP	11/6/2021 11:05	AKD993	M	C186250	2.38	0.00181	3.76	<0.00002	35.4	0.145	23.4	<0.00001	<0.005	<0.005	0.00144	<0.005	0.0103	<0.0001	0.0161	0.00062	0.00045	0.082	<0.0001	<0.001	0.057	<0.00001	47.6	0.0012	<0.0002
RSEM-R6W-EOP	11/7/2021 10:55	AKE000	M	C186252	2.43	0.00183	3.85	<0.00002	39.2	0.142	22.3	<0.00001	<0.005	<0.005	0.00147	<0.005	0.0105	<0.0001	0.0154	0.00068	0.00044	0.079	<0.0001	<0.001	0.059	<0.00001	46.8	0.0012	<0.0002
RSEM-R6W-EOP	11/8/2021 10:40	AKD975	M	C186247	2.50	0.00179	3.75	<0.00002	44.1	0.143	26.7	<0.00001	<0.005	<0.005	0.00145	<0.005	0.0116	<0.0001	0.0156	0.0008	0.00047	0.077	<0.0001	<0.001	0.066	<0.00001	44.8	0.0013	<0.0002
RSEM-R6W-EOP	11/9/2021 12:00	AKJ863	M	C187047	2.47	0.00164	3.67	<0.00002	46.9	0.138	27.7	<0.00001	<0.005	<0.005	0.00138	<0.005	0.0109	<0.0001	0.0155	0.00092	0.00051	0.072	<0.0001	<0.001	0.072	<0.00001	43.3	0.0016	<0.0002
RSEM-R6W-EOP	11/10/2021 12:30	AKN275	M	C187468	2.63	0.00161	3.67	<0.00002	53.1	0.134	29.8	<0.00001	<0.005	<0.005	0.00137	<0.005	0.0118	<0.0001	0.0171	0.00116	0.00057	0.064	<0.0001	<0.001	0.062	<0.00001	38.8	0.0018	<0.0002
RSEM-R6W-EOP	11/11/2021 11:00	AKN228	M	C187460	2.80	0.00163	3.78	<0.00002	58.1	0.14	34.6	<0.00001	<0.005	<0.005	0.00146	<0.005	0.0122	<0.0001	0.0183	0.00122	0.00057	0.064	<0.0001	<0.001	0.067	<0.00001	39.4	0.0019	<0.0002
RSEM-R6W-EOP	11/12/2021 11:00	AKN247	M	C187463	2.69	0.00154	3.5	<0.00002	57.6	0.132	32.2	<0.00001	<0.005	<0.005	0.00139	<0.005	0.012	<0.0001	0.0166	0.00133	0.0006	0.062	<0.0001	<0.001	0.068	<0.00001	37.5	0.002	<0.0002
RSEM-R6W-EOP	11/13/2021 11:00	AKS760	M	C188237	2.87	0.00151	3.7	<0.00002	62.2	0.129	29.8	<0.00001	<0.005	<0.005	0.00145	<0.005	0.0125	<0.0001	0.0145	0.0014	0.00065	0.057	<0.0001	<0.001	0.09	0.000012	35.6	0.002	<0.0002
RSEM-R6W-EOP	11/14/2021 11:00	AKS791	M	C188243	2.94	0.00151	3.78	<0.00002	63.5	0.132	33.2	<0.00001	<0.005	<0.005	0.00149	<0.005	0.0128	<0.0001	0.0142	0.00139	0.00065	0.057	<0.0001	<0.001	0.088	<0.00001	36.2	0.002	<0.0002
RSEM-R6W-EOP	11/15/2021 6:30	AKS805	M	C188248	3.18	0.00158	3.9	<0.00002	67.0	0.136	40.9	<0.00001	<0.005	<0.005	0.00147	<0.005	0.0135	0.00026	0.0141	0.00153	0.00073	0.056	<0.0001	<0.001	0.093	<0.00001	35.1	0.0022	<0.0002
RSEM-R6W-EOP	11/16/2021 15:00	AKV420	M	C188704	3.26	0.00129	3.78	<0.00002	76.7	0.131	44.8	<0.00001	<0.005	<0.005	0.00159	<0.005	0.016	<0.0001	0.0126	0.00178	0.00083	0.05	<0.0001	<0.001	0.09	0.00002	32.3	0.0021	<0.0002
RSEM-R6W-EOP	11/17/2021 11:15	AKY310	M	C189131	3.02	0.00132	3.88	<0.00002	67.6	0.125	33.4	<0.00001	<0.005	<0.005	0.00151	<0.005	0.0174	<0.0001	0.0133	0.0022	0.0011	0.049	<0.0001	<0.001	0.096	0.000014	30.3	0.0024	<0.0002
RSEM-R6W-EOP	11/18/2021 10:50	AKZ642	M	C189345	3.01	0.00127	3.92	<0.00002	80.6	0.124	35.1	<0.00001	<0.005	<0.005	0.00152	<0.005	0.0183	<0.0001	0.0118	0.00234	0.00132	0.049	<0.0001	<0.001	0.103	0.000016	29.8	0.0027	<0.0002
RSEM-R6W-EOP	11/19/2021 10:55	AKZ639	M	C189344	3.39	0.00129	4.03	<0.00002	76.6	0.131	40.8	<0.00001	<0.005	<0.005	0.0016	<0.005	0.0196	<0.0001	0.0139	0.00242	0.00136	0.048	<0.0001	<0.001	0.109	0.00001	29.2	0.0025	<0.0002
RSEM-R6W-EOP	11/20/2021 10:30	ALR016	M	C192879	6.59	0.00234	5.16	<0.00002	131	0.254	67.9	0.000022	<0.005	<0.005	0.00306	<0.005	0.0343	0.00031	0.0155	0.00316	0.00152	0.062	<0.0001	<0.001	0.193	0.000014	36.3	0.0033	<0.0002
RSEM-R6W-EOP	11/21/2021 10:10	ALT348	M	C193212	5.79	0.00203	4.56	<0.00002	117	0.224	60.4	0.000015	<0.005	<0.005	0.00271	<0.005	0.0329	0.00022	0.0145	0.00341	0.00165	0.063	<0.0001	<0.001	0.192	0.000014	36.1	0.0034	0.00021
RSEM-R6W-EOP	11/22/2021 10:55	ALQ581	M	C192775	4.78	0.00179	5.95	<0.00002	134	0.191	43.5	0.000012	<0.005	<0.005	0.00247	<0.005	0.0372	<0.0001	0.0108	0.00276	0.00134	0.048	<0.0001	<0.001	0.163	<0.00001	27.7	0.0027	<0.0002
RSEM-R6W-EOP	11/23/2021 10:15	ALN437	M	C192217	4.68	0.00159	5.28	<0.00002	133	0.191	64.4	0.000012	<0.005	<0.005	0.00243	<0.005	0.0337	<0.0001	0.0181	0.00358	0.00171	0.058	<0.0001	<0.001	0.213	0.000011	37.7	0.0037	0.00023
RSEM-R6W-EOP	11/24/2021 10:45	ALQ703	M	C192806	3.36	0.00112	3.66	<0.00002	94.4	0.14	41.0	<0.00001	<0.005	<0.005	0.00171	<0.005	0.027	0.0001	0.0105	0.00276	0.00136	0.045	<0.0001	<0.001	0.168	0.000014	26.8	0.0028	<0.0002
RSEM-R6W-EOP	11/25/2021	FJ2101334-002	M	FJ2101334	3.81	0.00130	4.82	<0.000010	106	0.143	60.6	<0.000010	0.0003	0.00640	0.00173	0.00307	0.0294	0.00035	0.0105	0.00295	0.00148	#####	<0.000100	0.00005	0.108	<0.0000200	26.5	0.00277	0.00018
RSEM-R6W-EOP	11/26/2021 10:20	FJ2101337-003	M	FJ2101337	3.71	0.00117	4.75	<0.000010	106	0.145	61.8	<0.000010	0.0003	0.00559	0.00174	0.00260	0.0281	<0.00020	0.0109	0.00281	0.00140	0.036	<0.000100	0.00005	0.109	<0.0000150	24.7	0.00263	0.00017
RSEM-R6W-EOP	11/27/2021 11:00	FJ2101340-002	M	FJ2101340	3.47	0.00112	4.70	<0.000010	104	0.154	55.8	<0.000010	0.0003	0.00425	0.00166	0.00249	0.0274	0.00021	0.0101	0.00269	0.00143	0.041	<0.000100	0.00005	0.117	0.0000176	25.0	0.00261	0.00016
RSEM-R6W-EOP	11/28/2021 10:20	FJ2101338-003	M	FJ2101338	3.60	0.00110	4.77	<0.000010	105	0.145	59.2	<0.000010	0.0003	0.00616	0.00177	0.00256	0.0289	<0.00020	0.0092	0.00262	0.00137	0.041	<0.000100	0.00005	0.113	0.0000195	24.9	0.00256	0.00016
RSEM-R6W-EOP	11/29/2021 9:55	FJ2101339-002	M	FJ2101339	3.40	0.00117	4.84	<0.000010	104	0.158	55.3	<0.000010	0.0003	0.00604	0.00165	0.00255	0.0267	0.00026	0.0102	0.00266	0.00142	0.043	<0.000100	0.00005	0.118	0.0000146	27.7	0.00252	0.00014
RSEM-R6W-EOP	11/30/2021 13:00	FJ2101361-002	M	FJ2101361	4.00	0.00108	4.90	<0.000010	112	0.158	61.7	<0.000010	0.0003	0.00473	0.00172	0.00244	0.0260	<0.00020	0.0088	0.00268	0.00134	0.041	<0.000100	0.00005	0.126	0.0000163	27.7	0.00245	0.00013
RSEM-R6W-EOP	12/1/2021 13:00	FJ2101362-002	M	FJ2101362	3.49	0.00113	4.17	<0.000010	108	0.148	55.8	<0.000010	0.0003	0.00267	0.00181	0.00235	0.0285	<0.00020	0.0342	0.00286	0.00140	#####	<0.000100	0.00005	0.114	<0.0000250	26.7	0.00250	0.00018
RSEM-R6W-EOP	12/2/2021 12:30	FJ2101375-002	M	FJ2101375	3.55	0.00112	4.52	<0.000010	107	0.149	60.1	<0.000010	0.0003	0.00243	0.00171	0.00236	0.0278	<0.00020	0.0197	0.00258	0.00142	0.042	<0.000100	0.00005	0.112	0.0000146	26.9	0.00214	0.00011
RSEM-R6W-EOP	12/3/2021 12:00	FJ2101374-002	M	FJ2101374	3.57	0.00114	4.70	<0.000010	109	0.151	61.4	<0.000010	0.0002	0.00223	0.00166	0.00238	0.0278	<0.00020	0.0202	0.00277	0.00132	0.045	<0.000100	0.00005	0.113	0.0000131	28.0	0.00233	0.00011
RSEM-R6W-EOP	12/4/2021 12:00	FJ2101385-002	M	FJ2101385	3.68	0.00113	4.71	<0.000010	108	0.164	60.8	<0.000010	0.0003	0.00233	0.00182	0.00231	0.0266	<0.00020	0.0238	0.00276	0.00136	#####	<0.000100	0.00005	0.114	<0.0000250	30.8	0.00238	0.00015
RSEM-R6W-EOP	12/5/2021 12:00	FJ2101386-002	M	FJ2101386	3.73	0.00114	4.78	<0.000010	109	0.163	61.1	<0.000010	0.0003	0.00264	0.00180	0.00223	0.0260	<0.00020	0.0096	0.00281	0.00138	#####	<0.000100	0.00005	0.118	0.0000254	33.0	0.00236	0.00015
RSEM-R6W-EOP	12/6/2021 6:00	FJ2101387-001	M	FJ2101387	3.74	0.00125	4.85	<0.000010	108	0.165	61.6	<0.000010	0.00030	0.00299	0.00184	0.00224	0.0242	<0.00020	0.0087	0.00261	0.00135	0.049	<0.000100	0.00005	0.114	0.0000190	32.5	0.00206	0.00017
RSEM-R6W-EOP	12/7/2021 10:30	FJ2101420-001	M	FJ2101420	3.88	0.00121	4.82	<0.000010	116	0.174	66.6	<0.000010	0.0002	<0.00330	0.00189	0.00243	0.0245	<0.00020	0.0088	0.00268	0.00139	0.054	<0.000100	0.00005	0.121	0.0000207	34.7	0.00216	0.00016
RSEM-R6W-EOP	12/8/2021 11:20	FJ2101419-002	M	FJ2101419	3.89	0.00112	4.69	<0.000010	111	0.174	63.2	<0.000010	0.0002	0.00218	0.00186	0.00217	0.0254	<0.00020	0.0088	0.00256	0.00139	0.056	<0.000100	0.00005	0.126	0.0000209	35.1	0.00205	0.00014
RSEM-R6W-EOP	12/9/2021 10:25	FJ2101442-003	M	FJ2101442	3.85	0.00116	5.16	<0.000010	112	0.177	64.1	<0.000010	0.0003	<0.00270	0.00191	0.00240	0.0269	<0.00020	0.0081	0.00266	0.00141	0.055	<0.000100	0.00005	0.126	0.0000181	33.6	0.00192	0.00017
RSEM-R6W-EOP	12/10/2021 10:55	FJ2101436-002	M	FJ2101436	3.80	0.00121	5.16	<0.000010	109	0.171	64.8	<0.000010	0.0003	0.00318	0.00183	0.00247	0.0258	<0.00020	0.0091	0.00259	0.00144	0.053	<0.000100	0.00005	0.125	0.0000198	33.1	0.00187	0.00020
RSEM-R6W-EOP	12/11/2021 14:00	FJ2101439-003	M	FJ2101439	3.93	0.00114	4.86	<0.000010	120	0.186	60.7	<0.000010	0.0002	<0.00030	0.00194	0.00158	0.0276	<0.00020	0.140	0.00266	0.00145	0.058	<0.000100	0.00005	0.129	0.0000259	33.4	0.00235	0.00029
RSEM-R6W-EOP	12/12/2021 11:45	FJ2101434-002	M	FJ2101434	3.91	0.00118	5.10	<0.000010	119	0.193	63.9	<0.000010	0.0003	0.00328	0.00190	0.00211	0.0343	0.00021	0.0082	0.00259	0.00138	0.059	<0.000100	0.00005	0.139	0.0000212	35.3	0.00169	0.00024
RSEM-R6W-EOP	12/13/2021 11:20	FJ2101455-001	M	FJ2101455	4.29	0.00142	5.35	<0.000010	134	0.190	73.8	<0.000010	0.0003	0.00243	0.00203	0.00216	0.0359	<0.00020	0.0081	0.00249	0.00140	0.058	<0.000100	0.00005	0.146	0.0000204	37.3	0.00176	0.00022
RSEM-R6W-EOP	12/17/2021 11:35	FJ2101490-001	M	FJ2101490	4.07	0.00151	5.77	<0.000010	134	0.191	73.8	<0.000010	0.0003	<0.00300	0.00197	0.00204	0.0608	<0.00020	0.0154	0.00252	0.00148	0.056	<0.000100	0.00005	0.163	0.0000283	39.1	0.00172	0.00035
RSEM-R6W-EOP	12/18/2021 13:30	FJ2101495-001	M	FJ2101495	4.12	0.00170	5.88	<0.000010	132	0.201	74.2	<0.000010	0.0004	<0.00330	0.00219	0.00219	0.0679	0.00046	0.0233	0.00221	0.00139	0.05	<0.000100	0.00005	0.164	0.0000280	37.4	0.00234	0.00034
RSEM-R6W-EOP	12/19/2021 11:30	FJ2101494-001	M	FJ2101494	4.34	0.00193	5.67	<0.000010	128	0.187	73.0	<0.000010	0.00040	0.00253	0.00226	0.00252	0.0642	<0.00020	0.0230	0.00212	0.00157	0.049	<0.000100	0.00005	0.158	0.0000309	36.7	0.00313	0.00033
RSEM-R6W-EOP	12/19/2021 11:40	FJ2101494-002	D	FJ2101494	4.23	0.00220	5.62	<0.000010	124	0.189	72.9	0.000013	0.00040	0.00225	0.00224	0.00245	0.0624	<0.00020	0.0198	0.00208	0.00144	0.046	<0.000100	0.00005	0.160	0.0000306	36.3	0.00316	0.00032
RSEM-R6W-EOP	12/20/2021 10:25	FJ2101496-001	M	FJ2101496	4.27	0.00234	6.42	<0.000010	126	0.192	72.2	<0.000010	0.0004	<0.00330	0.00257	0.00284	0.0573	<0.00020	0.0202	0.00197	0.00143	#####	<0.000100	0.00005	0.156	0.0000271	33.7	0.00432	0.00025
RSEM-R6W-EOP	12/21/2021 11:00	FJ2101514-004	M	FJ2101514	4.48	0.00210	6.14	<0.000010	124	0.196	68.6	<0.000010	0.0004	0.00238	0.00247	0.00261	0.0547	<0.00020	0.0166	0.00198	0.00142	0.041	<0.000100	0.00005	0.155	0.0000240	33.6	0.00385	0.00024
RSEM-R6W-EOP	12/22/2021 6:00	FJ2101508-002	M	FJ2101508	4.76	0.00266	6.58	<0.000010	129	0.194	78.3	<0.000010	0.0005	<0.00030	0.00282	0.00272	0.0510	<0.00020	0.111	0.00186	0.00129	0.038	<0.000100	0.00005	0.115	0.0000194	31.0	0.00434	0.00025
RSEM-R6W-EOP	12/23/2021 11:00	FJ2101512-001	M	FJ2101512	4.50	0.00232	6.56	<0.000010	127	0.195	73.2	<0.000010	0.0004	0.00159	0.00264	0.00274	0.0524	<0.00020	0.0250	0.00198	0.00136	0.039	<0.000100	0.00005	0.153	0.0000216	33.6	0.00436	0.00020
RSEM-R6W-EOP	12/24/2021 11:45	FJ2101513-001	M	FJ2101513	4.44	0.00216	6.27	<0.000010	124	0.196	66.0	<0.000010	0.0004	0.00220	0.00256	0.00279	0.0562	<0.00020	0.0140	0.00208	0.00151	0.042	<0.000100	0.00005	0.157	0.0000310	35.1	0.00460	0.00023
RSEM-R6W-EOP	12/25/2021 11:00	FJ2101514-001	M	FJ2101514	4.64	0.00250	6.58	<0.000010	125	0.202	68.8	<0.000010	0.0005	0.00273	0.00264	0.00286	0.0528	<0.00020	0.0138	0.00211	0.00156	0.043	<0.000100	0.00005	0.161	0.0000266	35.8	0.00473	0.00022
RSEM-R6W-EOP	12/26/2021 13:45	FJ2101514-002	M	FJ2101514	4.68	0.00251	6.71	<0.000010	122	0.200	68.3	<0.000010	0.0005	0.00280	0.00281	0.00326	0.0676	<0.00020	0.0176	0.00202	0.00143	#####	<0.000100	0.00005	0.156	0.0000272	33.2	0.00531	0.00023
RSEM-R6W-EOP	12/27/2021 10:45	FJ2101514-003	M	FJ2101514	4.94	0.00272	6.94	<0.000010	126	0.206	73.5	<0.000010	0.0005	<0.00420	0.00297	0.00331	0.0585	<0.00020	0.0154	0.00200	0.00136	0.034	<0.000100	0.00005	0.144	0.0000243	32.4	0.00470	0.00023
RSEM-R6W-EOP	12/28/2021 11:15	FJ2101525-001	M	FJ2101525	4.78	0.00263	6.70	<0.000010	124	0.193	76.5	<0.000010	0.00050	0.00250	0.00263	0.00321	0.0653	<0.00020	0.0216	0.00186	0.00136	#####	<0.000100	0.00005	0.137	0.0000282	29.7	0.00444	0.00024
RSEM-R6W-EOP	12/29/2021 11:20	FJ2101526-001	M	FJ2101526	4.57	0.00210	6.25	<0.000010	112	0.186	69.6	<0.000010	0.0005	0.00282	0.00252	0.00321	0.0685	<0.00020	0.0316	0.00174	0.00123	0.034	<0.000100	0.00005	0.118	0.0000295	30.2	0.00366	0.00026
RSEM-R6W-EOP	12/31/2021 12:00	FJ2200025-001	M	FJ2200025	4.52	0.00233	6.33	<0.000010	111	0.180	67.8	<0.000010	0.0005	0.00344	0.00254	0.00313	0.0723	<0.00020	0.0162	0.00163	0.00129	#####	<0.000100	0.00005	0.114	0.0000352	30.5	0.00345	0.00026
RSEM-R6-WP-C	12/29/2021 15:30	FJ2101526-003	M	FJ2101526	7.48	0.00401	10.2	<0.000010	148	0.238	100	<0.000010	0.001	0.00113	0.00422	0.00644	0.0893	<0.00020	0.0606	0.00237	0.00187	0.024	<0.000100	0.00005	0.154	<0.0000150	31.3	0.00839	0.00015
RSEM-R6-WP-E	12/29/2021 15:00	FJ2101526-002	M	FJ2101526	4.83	0.00258	6.46	<0.000010	118	0.185	71.8	<0.000010	0.00050	0.00253	0.00256	0.00326	0.0724	<0.00020	0.0341	0.00169	0.00123	0.034	<0.000100	0.00005	0.116	0.0000306	29.8	0.00389	0.00024
RSEM-R6W-SP	2/5/2021 14:00	ZH1014	M	C107964	4.34	0.00298	5.4	<0.00002	202	0.307	145	0.000011	<0.005	<0.005	0.0029	0.0072	0.0207	<0.0001	0.02	0.00174	0.0011	0.023	<0.0001	<0.001	0.15	<0.00001	38.1	0.0029	0.0004

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	4/15/2021 17:20	ZQ1506	M	C124804	2.05	0.00254	4.14	<0.00002	61.2	0.264	43.4	0.00002	<0.005	0.0117	0.00162	<0.005	0.0053	0.00049	0.0154	0.00132	0.00113	0.404	<0.0001	<0.001	0.053	<0.00001	43.6	0.0011	0.00046
RSEM-R6W-SP	4/16/2021 11:00	ZQ1482	M	C124799	1.99	0.00249	4.04	<0.00002	61.8	0.26	44.5	0.000014	<0.005	0.0055	0.00168	<0.005	0.0053	0.00033	0.0182	0.00138	0.00113	0.353	<0.0001	<0.001	0.056	<0.00001	43.9	0.001	0.00042
RSEM-R6W-SP	12/14/2021 11:45	FJ2101469-001	M	FJ2101469	4.27	0.00147	5.82	<0.000010	137	0.214	75.9	0.000010	0.00030	0.00195	0.00218	0.00195	0.0405	<0.00020	0.0068	0.00286	0.00149	0.066	<0.000100	0.00005	0.137	0.0000291	42.6	0.00192	0.00019
RSEM-R6W-SP	12/14/2021 11:55	FJ2101469-002	D	FJ2101469	4.34	0.00155	5.88	<0.000010	137	0.215	76.9	<0.000010	0.00030	0.00253	0.00214	0.00207	0.0379	<0.00020	0.0088	0.00282	0.00147	0.065	<0.000100	0.00005	0.137	0.0000306	42.2	0.00190	0.00018
RSEM-R6W-SP	12/15/2021 13:45	FJ2101472-001	M	FJ2101472	4.51	0.00143	5.94	<0.000010	141	0.216	75.1	<0.000010	0.0003	<0.00030	0.00220	0.00160	0.0360	<0.00020	0.119	0.00303	0.00174	0.078	<0.000100	0.00005	0.172	0.0000355	48.6	0.00260	0.00021
RSEM-R6W-SP	12/16/2021 10:25	FJ2101483-001	M	FJ2101483	4.55	0.00136	6.22	<0.000010	142	0.217	77.0	<0.000010	0.0003	<0.00330	0.00220	0.00201	0.0372	<0.00020	0.0093	0.00300	0.00160	0.068	<0.000100	0.00005	0.157	0.0000306	44.0	0.00204	0.00017
SeptimusBeaverPond	10/15/2021 14:25	AII746	M	C178993	7.67	0.00014	0.952	<0.00002	4.99	0.656	30.6	<0.00001	<0.005	0.0112	0.00035	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00108	0.106	<0.0001	<0.001	<0.05	<0.00001	77.3	<0.001	0.00024
SeptimusBeaverPond	10/15/2021 14:35	AII747	M	C178993	8.67	0.00015	0.807	<0.00002	5.01	0.645	31.8	<0.00001	<0.005	<0.005	0.00029	<0.005	<0.005	0.0001	<0.003	<0.0005	0.00103	0.106	<0.0001	<0.001	<0.05	<0.00001	77.4	<0.001	<0.0002
SeptimusBeaverPond	10/15/2021 14:45	AII748	M	C178993	8.01	0.00012	0.652	<0.00002	4.84	0.626	29.7	<0.00001	<0.005	<0.005	0.0003	<0.005	<0.005	0.00012	<0.003	<0.0005	0.00098	0.103	<0.0001	<0.001	<0.05	<0.00001	77.1	<0.001	<0.0002
SeptimusBeaverPond	10/15/2021 15:15	AII749	M	C178993	8.39	0.00013	0.875	<0.00002	4.87	0.634	29.5	<0.00001	<0.005	<0.005	0.0003	<0.005	<0.005	0.00023	<0.003	<0.0005	0.00104	0.104	<0.0001	<0.001	<0.05	<0.00001	77.4	<0.001	0.0002
SeptimusBeaverPond	10/15/2021 15:25	AII750	M	C178993	6.15	<0.0001	1.49	<0.00002	3.71	0.425	6.5	<0.00001	<0.005	<0.005	0.00015	<0.005	<0.005	0.00011	0.0046	<0.0005	0.0009	0.102	<0.0001	<0.001	<0.05	<0.00001	72.2	<0.001	0.00035
SeptimusBeaverPond	10/15/2021 15:35	AII751	M	C178993	7.97	<0.0001	1.01	<0.00002	4.56	0.514	16.7	<0.00001	<0.005	<0.005	0.00012	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00092	0.118	<0.0001	<0.001	<0.05	<0.00001	77.8	<0.001	0.00027
SeptimusBeaverPond	10/15/2021 15:40	AII752	M	C178993	8.38	0.00012	0.776	<0.00002	5.00	0.628	30.8	<0.00001	<0.005	<0.005	0.00036	<0.005	<0.005	0.00014	<0.003	<0.0005	0.00102	0.109	<0.0001	<0.001	<0.05	<0.00001	81.0	<0.001	0.00021
SeptimusBeaverPond	10/15/2021 15:50	AII753	M	C178993	7.53	0.00011	0.567	<0.00002	5.48	0.648	32.0	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	0.00013	<0.003	<0.0005	0.00099	0.109	<0.0001	<0.001	<0.05	<0.00001	84.0	<0.001	<0.0002
South_Crusher_Sump	11/3/2021 16:00	AJX286	M	C185315	1.22	0.00032	3.31	<0.00002	4.12	0.112	6.2	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.159	<0.0001	<0.001	<0.05	0.000032	55.3	<0.001	<0.0002
WP-DS	1/13/2021 13:35	ZD9434	M	C102840	0.967	0.00049	1.84	<0.00002	4.09	0.294	5.3	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.061	<0.0001	<0.001	<0.05	0.000016	47.0	<0.001	<0.0002
WP-DS	3/18/2021 12:30	ZM8663	M	C118036	1.01	0.00053	1.72	<0.00002	4.59	0.292	5.2	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.066	<0.0001	<0.001	0.051	0.000012	46.6	<0.001	<0.0002
WP-DS	4/29/2021 11:50	ZS2244	M	C128572	0.794	0.00053	1.62	<0.00002	2.95	0.235	4.1	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.054	<0.0001	<0.001	<0.05	0.000015	39.4	<0.001	<0.0002
WP-DS	6/24/2021 14:31	AAP490	M	C144894	0.323	0.00029	1.34	<0.00002	0.981	0.106	<3.0	0.000018	<0.005	<0.005	0.00021	<0.005	<0.005	<0.0001	0.0363	<0.0005	0.00015	0.031	<0.0001	<0.001	<0.05	0.000022	31.8	<0.001	<0.0002
WP-DS	7/24/2021 13:55	ACO184	M	C153467	0.683	0.00035	1.29	<0.00002	2.18	0.217	<3.0	<0.00001	<0.005	<0.005	0.00038	<0.005	<0.005	<0.0001	0.0049	<0.0005	0.0001	0.048	<0.0001	<0.001	<0.05	0.000012	38.6	<0.001	<0.0002
WP-DS	8/28/2021 14:04	AEV017	M	C163786	1.07	0.00043	1.57	<0.00002	3.70	0.299	<3.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00017	0.065	<0.0001	<0.001	<0.05	0.000014	45.7	<0.001	<0.0002
WP-DS	9/18/2021 14:00	AGJ640	M	C170329	1.03	0.00043	1.58	<0.00002	4.20	0.27	6.3	<0.00001	<0.005	<0.005	0.00048	<0.005	0.0065	<0.0001	<0.003	<0.0005	0.00011	0.064	<0.0001	<0.001	<0.05	<0.00001	46.3	<0.001	<0.0002
WP-DS	10/9/2021 14:05	AHW996	M	C176835	0.555	0.00036	1.73	<0.00002	1.74	0.168	<3.0	<0.00001	<0.005	<0.005	0.00035	<0.005	<0.005	<0.0001	0.0052	<0.0005	<0.0001	0.04	<0.0001	<0.001	<0.05	0.000014	33.7	<0.001	<0.0002
WP-DS	11/6/2021 14:20	AKD977	M	C186247	0.542	0.00036	1.32	<0.00002	2.01	0.177	<3.0	<0.00001	<0.005	<0.005	0.00034	<0.005	<0.005	<0.0001	0.0044	<0.0005	0.0001	0.037	<0.0001	<0.001	<0.05	<0.00001	32.1	<0.001	<0.0002
WP-US	3/18/2021 12:00	ZM8662	M	C118036	1.11	0.00043	1.77	<0.00002	5.02	0.282	5.5	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.062	<0.0001	<0.001	0.053	0.000011	47.5	<0.001	<0.0002
WP-US	4/29/2021 12:20	ZS2243	M	C128572	0.821	0.00053	1.66	<0.00002	3.05	0.23	3.8	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.0001	0.05	<0.0001	<0.001	<0.05	0.000013	38.6	<0.001	<0.0002
WP-US	6/24/2021 14:13	AAP491	M	C144894	0.380	0.00027	2.08	<0.00002	2.15	0.108	<3.0	0.000013	<0.005	<0.005	0.00026	<0.005	0.0085	<0.0001	0.0463	<0.0005	0.00018	0.03	<0.0001	<0.001	<0.05	0.000025	32.4	<0.001	<0.0002
WP-US	7/24/2021 13:34	ACO183	M	C153467	0.713	0.00041	1.32	<0.00002	1.96	0.227	<3.0	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	0.0123	<0.0005	0.00011	0.047	<0.0001	<0.001	<0.05	0.000011	39.3	<0.001	<0.0002
WP-US	8/28/2021 13:14	AEV016	M	C163786	1.07	0.00045	1.54	<0.00002	5.87	0.278	<3.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00016	0.058	<0.0001	<0.001	<0.05	0.000012	43.8	<0.001	<0.0002
WP-US	9/18/2021 12:15	AGJ639	M	C170329	1.06	0.00038	1.64	<0.00002	4.38	0.257	6.3	<0.00001	<0.005	<0.005	0.00047	<0.005	0.0146	0.00012	<0.003	<0.0005	0.00011	0.059	<0.0001	<0.001	<0.05	0.000013	45.6	<0.001	<0.0002
WP-US	10/9/2021 12:45	AHW995	M	C176835	0.556	0.00033	1.7	<0.00002	1.74	0.169	<3.0	<0.00001	<0.005	<0.005	0.00035	<0.005	<0.005	<0.0001	0.0059	<0.0005	0.00011	0.039	<0.0001	<0.001	<0.05	0.000015	33.2	<0.001	<0.0002
WP-US	11/6/2021 12:06	AKD976	M	C186247	0.669	0.00035	1.3	<0.00002	2.10	0.172	<3.0	<0.00001	<0.005	<0.005	0.00034	<0.005	<0.005	<0.0001	0.0049	<0.0005	0.00011	0.034	<0.0001	<0.001	<0.05	0.000014	31.3	<0.001	<0.0002

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not repo

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
85-Discharge	1/23/2021 17:00	ZF1639	M	C105090																									2.2
85-EOP	5/25/2021 14:30	ZW1247	M	C135423																									85
85-EOP	11/12/2021 13:40	AKS806	M	C188248																									6.9
85-EOP	11/13/2021 14:00	AKS761	M	C188237																									3.1
85-EOP	11/14/2021 15:00	AKS792	M	C188243																									1.7
85-EOP	11/15/2021 9:30	AKY314	M	C189131																									1.7
85-IDZ	1/23/2021 17:00	ZF1642	M	C105090																									26
85-IDZ	5/25/2021 15:00	ZW1248	M	C135423																									350
85-IDZ	11/13/2021 14:30	AKS762	M	C188237																									10
85-IDZ	11/14/2021 15:30	AKS793	M	C188243																									140
85-IDZ	11/15/2021 9:00	AKY313	M	C189131																									120
85-US	5/25/2021 15:20	ZW1249	M	C135423																									140
AC_E_HAIRPIN_DITCH	3/17/2021 12:25	ZM7314	M	C117752	0.0009	<0.01	<0.0002	0.0035	3.29	0.0148	<0.0000019	0.0049	<0.001		2.13	0.00058	2.38	<0.00002	3.25	0.097	7.6	<0.00001	<0.005	<0.005	0.00076	<0.005	<0.005	<0.0001	>4000
AC-E-Hairpin-Sump	7/25/2021 13:00	ACO187	M	C153467	0.00093	0.08	<0.0002	0.0548	39.7	0.0675	<0.0000019	0.0031	0.0112		3.68	0.00131	4.05	<0.00002	58.2	1.01	100	0.000053	<0.005	<0.005	0.00104	<0.005	0.0105	<0.0001	2.6
AC-E-HP-BT	6/19/2021 13:30	AAF586	M	C143352	<0.0005	<0.01	<0.0002	0.0405	31.9	0.0322	<0.0000019	0.0033	0.0064		3.01	0.00103	3.85	<0.00002	67.4	0.753	45.1	0.000025	<0.005	<0.005	0.00091	<0.005	<0.005	<0.0001	24
AC-E-Sump	3/20/2021 13:25	ZN1533	M	C118497	0.00165	<0.01	<0.0002	0.0235	13.8	0.17	<0.0000019	0.0081	0.0261		3.46	0.0015	3.16	<0.00002	36.6	0.224	88.0	0.000012	<0.005	<0.005	0.00155	<0.005	0.0081	<0.0001	22
AC-E-Sump	6/19/2021 13:40	AAF587	M	C143352	0.00189	<0.01	<0.0002	0.121	43.0	0.129	<0.0000019	0.019	0.0253		9.13	0.00191	3.08	<0.00002	434	0.863	470	0.000036	0.0058	<0.005	0.00233	<0.005	0.0074	0.00022	10
AC-E-Sump	9/29/2021 17:00	AHF737	M	C174181	0.0035	0.068	<0.001	0.093	83.8	0.0722	<0.0000019	0.0202	0.0175		12.2	0.00132	1.3	<0.0001	754	1.4	811	<0.00005	<0.025	<0.025	0.00459	<0.025	<0.025	<0.0005	4.8
AC-W-Hairpin-Sump	5/20/2021 13:15	ZV5700	M	C134406	<0.0005	<0.01	<0.0002	0.0143	37.6	0.0048	<0.0000019	0.002	0.0021		4.18	0.00264	3.94	<0.00002	20.1	0.492	46.4	<0.00001	<0.005	<0.005	0.00271	<0.005	<0.005	<0.0001	5.4
AC-W-Sump	3/17/2021 12:55	ZM7315	M	C117752	0.00172	<0.01	<0.0002	0.0655	29.9	0.747	<0.0000019	0.0049	0.0927		3.92	0.00274	1.71	<0.00002	106	0.395	149	0.000029	<0.005	<0.005	0.00222	<0.005	0.105	<0.0001	950
Area_23_BT	10/30/2021 13:10	AJO166	M	C184013	<0.0005	<0.01	<0.0002	0.0274	19.0	0.0158	<0.0000019	0.0127	0.0015		2.74	0.0021	4.07	<0.00002	54.9	0.296	13.2	0.000016	<0.005	<0.005	0.00663	<0.005	<0.005	<0.0001	560
Area_23_BT	11/2/2021 11:30	AJU793	M	C184881	<0.0005	<0.01	<0.0002	0.025	19.0	0.015	<0.0000019	0.0074	0.001		2.49	0.00133	5.45	<0.00002	41.6	0.236	18.0	<0.00001	<0.005	<0.005	0.00223	<0.005	<0.005	<0.0001	>4000
Area_23_BT	11/25/2021	FJ2101334-005	M	FJ2101334	0.00024	<0.010	<0.000050	0.0756	17.8	0.00292	<0.0000050	0.0286	0.0072	<0.050	2.59	0.00392	3.39	<0.000010	114	0.369	32.3	0.000017	0.00030	<0.00030	0.00440	<0.00050	<0.0010	<0.00020	228
Area_30_EOP	4/3/2021 15:50	ZO6454	M	C121575	0.00077	<0.01	<0.0002	0.0048	20.8	0.105	<0.0000019	0.0032	0.0015		1.88	0.00081	0.966	<0.00002	3.80	0.715	59.6	<0.00001	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001	12
Area_30_EOP	5/22/2021 13:05	ZV6992	M	C134601	0.00147	<0.01	<0.0002	0.0141	87.9	0.0191	<0.0000019	0.0091	0.0047		4.87	0.00739	0.941	<0.00002	11.4	4.35	298	<0.00001	<0.005	<0.005	0.007	<0.005	0.0059	<0.0001	2.5
Area_30_EOP	7/18/2021 11:00	ACC419	M	C151549	0.00094	0.043	<0.0002	0.0217	156	0.0164	<0.0000019	0.0098	0.0034		4.35	0.00594	1.25	<0.00002	14.7	8.64	685	0.000031	<0.005	<0.005	0.00478	<0.005	0.0297	<0.0001	1.7
Area_30_EOP	7/22/2021 15:55	ACL552	M	C152988	0.00092	0.011	<0.0002	0.0106	52.1	0.0011	<0.0000019	0.009	0.0024		3.86	0.00713	1.54	<0.00002	7.77	3.89	226	0.000012	<0.005	<0.005	0.00378	<0.005	0.013	<0.0001	3.0
Area_30_EOP	8/7/2021 13:30	ADM462	M	C157545	0.00079	<0.01	<0.0002	0.0087	60.6	<0.001	0.0000024	0.0119	0.0029		3.33	0.00962	1.24	<0.00002	7.68	4.64	282	0.000011	<0.005	<0.005	0.00491	<0.005	0.0291	<0.0001	3.2
Area_30_EOP	10/7/2021 14:55	AHU815	M	C176559	0.00092	0.01	<0.0002	0.0115	123	0.0111	<0.0000019	0.0076	0.0042		4.75	0.0074	0.188	<0.00002	12.6	7.37	548	<0.00001	<0.005	<0.005	0.00921	<0.005	0.0179	0.00016	22
Area_30_SP	6/10/2021 15:40	ZY8803	M	C140527	0.00124	<0.01	<0.0002	0.0142	85.6	0.0017	<0.0000019	0.0113	0.002		3.74	0.011	0.141	<0.00002	11.5	5.6	320	<0.00001	<0.005	<0.005	0.00394	<0.005	0.0056	<0.0001	3.1
Area_30_SP	6/17/2021 15:00	AAC468	M	C142866	0.00104	<0.01	<0.0002	0.0128	75.9	0.0029	<0.0000019	0.008	0.0023		3.34	0.0102	0.5	<0.00002	10.0	4.86	298	0.000012	<0.005	<0.005	0.00382	<0.005	0.0177	0.00011	2.9
Area_30_SP	8/22/2021 15:30	AEI416	M	C161433	0.00083	<0.01	<0.0002	0.0058	35.5	0.023	<0.0000019	0.0083	0.0022		2.82	0.0054	1.22	<0.00002	5.85	2.46	142	<0.00001	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001	82
Area_30_SP	9/15/2021 12:35	AGD171	M	C169361	0.00071	0.01	<0.0002	0.0144	142	<0.001	<0.0000019	0.0099	0.0034		4.62	0.00821	0.152	<0.00002	14.0	6.68	541	<0.00001	<0.005	<0.005	0.00718	<0.005	0.0116	<0.0001	14
Area_30_SP	10/15/2021 14:15	AII745	M	C178993	<0.001	<0.02	<0.0004	0.0141	145	0.0098	<0.0000019	0.0075	0.0039		4.80	0.00471	<0.2	<0.00004	14.5	8.74	563	<0.00002	<0.01	<0.01	0.0102	<0.01	<0.01	<0.0002	19
Area_30_SP	11/5/2021 12:40	AKA068	M	C185757	0.00069	<0.01	0.00023	0.0026	17.9	0.0151	0.0000025	0.002	0.001		1.02	0.00111	0.235	<0.00002	2.11	1.01	58.0	0.000018	<0.005	<0.005	0.00171	<0.005	0.324	0.00013	4.4
Area_A_N_Ditch	3/18/2021 9:30	ZM8872	M	C118063	0.00145	<0.01	<0.0002	<0.002	5.12	0.0044	<0.0000019	0.0037	0.0016		1.91	0.00018	1.64	<0.00002	4.02	0.078	4.3	<0.00001	<0.005	<0.005	0.00071	<0.005	<0.005	<0.0001	64
Area_A_N_Ditch	5/2/2021 14:00	ZS6048	M	C129102	<0.0005	<0.01	<0.0002	0.0024	13.0	0.0184	<0.0000019	0.002	<0.001		1.19	0.00032	3.38	<0.00002	4.49	0.143	14.0	<0.00001	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001	23
Area_A_N_Ditch	7/24/2021 13:55	ACO405	M	C153513	0.00056	0.039	<0.0002	0.0037	12.8	0.0136	<0.0000019	0.0012	<0.001		1.10	0.00041	3.48	<0.00002	4.72	0.149	7.7	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	<0.0001	1.8
Area_A_N_Ditch	8/29/2021 11:20	AEV015	M	C163786	0.00068	<0.01	<0.0002	0.0043	15.6	0.0144	<0.0000019	0.0015	<0.001		1.32	0.00025	4.15	<0.00002	5.63	0.197	17.0	<0.00001	<0.005	<0.005	0.00094	<0.005	<0.005	<0.0001	3.4
Area_A_N_Ditch	9/20/2021 11:50	AGM224	M	C170680	0.00065	0.011	<0.0002	0.0039	16.6	0.0076	<0.0000019	0.0018	<0.001		1.36	0.00074	4.07	<0.00002	6.74	0.172	24.4	<0.00001	<0.005	<0.005	0.00094	<0.005	<0.005	<0.0001	4.2
Area_A_N_Ditch	10/9/2021 13:50	AHX008	M	C176838	0.00057	<0.01	<0.0002	0.0032	15.2	0.003	<0.0000019	0.0015	<0.001		1.14	0.00022	4.62	<0.00002	5.38	0.161	18.3	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	<0.0001	2.8
Area_A_N_Ditch	10/28/2021 13:45	AJL913	M	C183658	<0.0005	<0.01	<0.0002	0.0038	13.2	0.0054	<0.0000019	0.0011	<0.001		1.09	0.00026	4.26	<0.00002	3.55	0.146	10.7	<0.00001	<0.005	<0.005	0.00078	<0.005	<0.005	<0.0001	1.1
Area_A_NE_Sump	11/4/2021 14:35	AKA063	M	C185756																									57
Area-A	3/19/2021 16:35	ZN1577	M	C118512	<0.0005	<0.01	<0.0002	0.0027	4.51	0.005	<0.0000019	<0.001	<0.001		0.366	<0.0001	0.184	<0.00002	2.07	0.058	8.0	<0.00001	<0.005	<0.005	0.0003	<0.005	<0.005	<0.0001	18
Area-A	10/6/2021 16:10	AHR789	M	C176098	<0.0005	<0.01	<0.0002	0.0138	19.0	<0.001	<0.0000019	0.0029	<0.001		1.93	0.00227	3.36	<0.00002	15.2	0.215	16.3	<0.00001	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001	8.6
CVC_BT	5/11/2021 12:10	ZU0200	M	C131591	0.0127	0.663	<0.001	0.021	0.31	0.0276	0.0000302	0.382	<0.005		138	0.0117	1.13	<0.0001	56.7	3.32	409	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005	7.1
DC-discharge-R6-WP	4/4/2021 11:40	ZO6462	M	C121580	<0.0005	<0.01	<0.0002	0.0094	10.7	0.0319	<0.0000019	0.0056	0.002		1.26	0.00258	2.69	<0.00002	30.5	0.229	22.8	<0.00001	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001	1600
DC-discharge-R6-WP	4/8/2021 11:00	ZP1741	M	C122796	<0.0005	<0.01	<0.0002	0.0099	9.74	0.0286	<0.0000019	0.0058	0.0023		1.39	0.00264	2.67	<0.00002	32.2	0.264	18.8	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	>4000
DC-discharge-R6-WP	5/19/2021 11:55	ZV3572	M	C134016	<0.0005	<0.01	<0.0002	0.01	10.8	0.0078	<0.0000019	0.0044	0.0016		1.41	0.00296	2.95	<0.00002	31.2	0.214	18.5	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	2400
DC-discharge-R6-WP	6/2/2021 12:35	ZX5269	M	C138096	<0.0005	<0.01	<0.0002	0.0172	9.44	0.0156	<0.0000019	0.007	<0.001		1.63	0.00408	3.17	<0.00002	66.7	0.215	34.5	<0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	2200
DC-discharge-R6-WP	7/20/2021 15:10	ACH818	M	C152456	0.00054	0.055	<0.0002	0.0066	9.86	0.0019	<0.0000019	0.0025	0.0011		0.955	0.00295	2.29	<0.00002	14.5	0.151	7.5	<0.00001	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	310
Earthfill_Dam_DS_OUT	11/17/2021 11:30	AKY311	M	C189131	0.00123	<0.01	<0.0002	0.0045	13.4	0.0046	<0.0000019	0.0022	<0.001		1.71	0.00248	3.68	<0.00002	8.16	0.151	18.5	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.98
Earthfill_Dam_DS_OUT	11/25/2021	FJ2101334-003	M	FJ2101334	0.00031	<0.010	<0.000050	0.0052	15.9	0.00020	<0.0000050	0.00205	<0.00050	<0.050	2.06	0.00212	4.69	<0.000010	10.1	0.161	23.6	<0.000010	<0.00010	<0.00030	0.00148	<0.00050	<0.0010	<0.00020	0.47
Earthfill_Dam_DS_OUT	12/2/2021 13:00	FJ2101375-003	M	FJ2101375	0.00076	<0.010	0.000099	0.0051	14.4	0.00671	<0.0000050	0.00211	<0.00050	<0.050	1.96	0.00175	4.68	<0.000010	9.79	0.160	22.2	<0.000010	<0.00010	<0.00030	0.00133	<0.00050	0.0016	<0.00020	0.25
Earthfill_Dam_DS_OUT	12/7/2021 11:15	FJ2101420-002	M	FJ2101420	0.00066	<0.010	0.000276	0.0051	14.6	0.00924	<0.0000050	0.00205	<0.00050	<0.050	1.82	0.00181	4.35	<0.000010	9.30	0.154	20.6	<0.000010	<0.00010	<0.00030	0.00128	<0.00050	0.0011	<0.00020	0.66
Earthfill_Dam_DS_OUT	12/15/2021 11:45	FJ2101472-003	M	FJ2101472	0.00050	<0.010	<0.000050	0.0049	14.7	0.00962	<0.0000050	0.00199	<0.00050	<0.050	1.82	0.00180	4.59	<0.000010	9.59	0.151	21.5	<0.000010	<0.00010	<0.00030	0.00116	<0.00050	0.0017	<0.00020	0.54
Earthfill_Dam_DS_OUT	12/23/2021 12:45	FJ2101512-002	M	FJ2101512	0.00036	<0.010	<0.000050	0.0036	10.6	0.00485	<0.0000050	0.00168	<0.00050	<0.050	1.20	0.00140	3.50	<0.000010	6.16	0.140	15.4	<0.000010	<0.00010	<0.00030	0.000814	<0.00050	0.0031	<0.00020	0.22
Earthfill_Dam_DS_OUT	12/30/2021 12:15	FJ2200029-003	M	FJ2200029	0.00039	<0.010	<0.000050	0.0024	9.20	0.00247	<0.0000050	0.00152	<0.00050	<0.050	0.840	0.000821	3.10	<0.000010	3.92	0.124	10.4	<0.000010	<0.00010	<0.00030	0.000679	<0.00050	0.0013	<0.00020	0.35
Earthfill_Dam_E_BT	10/13/2021 13:00	AIE379	M	C178189	<0.0005	<0.01	<0.0002	0.0038	8.63	0.0992	<0.0000019	0.0022	<0.001		0.690	0.00016	2.8	<0.00002	3.86	0.145	6.2	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	<0.0001	0.15
Earthfill_Dam_E_BT	10/23/2021 11:30	AIZ374	M	C181550	<0.0005	<0.01	<0.0002	0.0048	13.2	0.0081	<0.0000019	0.003	<0.001		1.93	0.00105	4.93	<0.00002	9.29	0.132	21.4	<0.00001	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	1.2
Earthfill_Dam_E_BT	11/2/2021 15:20	AJU792	M	C184881	<0.0005	<0.01	<0.0002	0.0047	12.7	<0.001	<0.0000019	0.0025	<0.001		2.11	0.0019	4.2	<0.00002	10.7	0.123	20.3	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	0.00013	1.3
Earthfill_Dam_E_BT	11/6/2021 11:40	AKD994	M	C186250	<0.0005	<0.01	<0.0002	0.0052	11.3	0.0271	<0.0000019	0.0025	<0.001		1.46	0.0017	3.09	<0.00002	10.3	0.141	9.2	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	0.86
Earthfill_Dam_E_BT	11/7/2021 11:25	AKE004	M	C186252	<0.0005	<0.01	<0.0002	0.0051	11.3	0.0265	<0.0000019	0.0024	<0.001		1.42	0.00188	3.1	<0.00002	10.2	0.14	10.2	<0.00001	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001	1.8
Earthfill_Dam_E_BT	11/10/2021 17:00	AKN278	M	C187468	<0.0005	<0.01	<0.0002	0.0048	11.5	0.0096	<0.0000019	0.0025	<0.001		1.67	0.00221	3.15	<0.00002	9.65	0.141	11.6	<0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	2.4
Earthfill_Dam_E_Sump	7/4/2021 16:05	ABD995	M	C147267	0.00053	0.052	<0.0002	0.0048	9.36	0.0148	<0.0000019	0.0018	<0.001		0.763	0.00095	2.74	<0.00002	5.23	0.149	11.9	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	2.5
Earthfill_Dam_E_Sump	7/8/2021 14:40	ABM762	M	C148925	<0.0005	0.014	<0.0002	0.0062	10.8	0.0222	<0.0000019	0.002	<0.001		0.816	0.0014	2.77	<0.00002	10.7	0.199	18.1	<0.00001	<0.005	<0.005	0.00078	<0.005	<0.005	<0.0001	1.5
Earthfill_Dam_E_Sump	7/11/2021 14:30	ABP674	M	C149459	<0.0005	0.038	<0.0002	0.0066	11.2	0.0257	<0.0000019	0.0021	<0.001		0.890	0.00136	2.98	<0.00002	12.9	0.206	17.5	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	<0.0001	2.8
Earthfill_Dam_E_Sump	7/16/2021 12:00	ABZ189	M	C151029	0.00056	0.055	<0.0002	0.0037	9.96	<0.001	<0.0000019	0.0021	<0.001		0.925	0.00155	2.88	<0.00002	6.80	0.143	7.3	<0.00001	<0.005	0.0063	0.00065	<0.005	<0.005	<0.0001	2.8
Earthfill_Dam_E_Sump	9/23/2021 17:30	AGT568	M	C171954	<0.0005	<0.01	<0.0002	0.0048	10.7	0.0832	<0.0000019	0.0029	<0.001		1.02	0.00074	2.73	<0.00002	4.77	0.142	13.4	<0.00001	<0.005	<0.005	0.00068	<0.005	<0.005	<0.0001	4.5

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
Earthfill_Dam_E_Sump	9/24/2021 13:15	AGV855	M	C172263	<0.0005	<0.01	<0.0002	0.0042	10.5	0.072	<0.0000019	0.0029	<0.001		0.979	0.00055	3.45	<0.00002	4.63	0.157	11.7	<0.00001	<0.005	<0.005	0.00069	<0.005	<0.005	<0.0001	1.5
Earthfill_Dam_E_Sump	9/25/2021 16:10	AGX499	M	C172580	<0.0005	<0.01	<0.0002	0.0044	11.6	0.109	<0.0000019	0.003	0.0025		1.13	0.00111	2.64	<0.00002	5.36	0.16	32.2	<0.00001	<0.005	<0.005	0.00081	<0.005	<0.005	<0.0001	13
Earthfill_Dam_E_Sump	9/26/2021 16:10	AGX368	M	C172552	<0.0005	<0.01	<0.0002	0.0043	11.9	0.0923	<0.0000019	0.0026	<0.001		1.01	0.00123	2.62	<0.00002	5.11	0.156	7.1	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	12
Earthfill_Dam_E_Sump	9/27/2021 12:00	AGZ870	M	C172958	<0.0005	<0.01	<0.0002	0.0044	11.5	0.091	<0.0000019	0.0028	<0.001		0.976	0.00086	2.77	<0.00002	4.72	0.162	12.9	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	1.4
Earthfill_Dam_E_Sump	9/28/2021 13:20	AHC018	M	C173431	<0.0005	<0.01	<0.0002	0.0046	11.9	0.101	<0.0000019	0.0027	<0.001		0.973	0.00072	2.86	<0.00002	4.79	0.164	11.9	<0.00001	<0.005	<0.005	0.00068	<0.005	<0.005	<0.0001	2.4
EarthfillDam-W-Sump	5/11/2021 14:50	ZU0127	M	C131574	<0.0005	<0.01	<0.0002	0.0036	9.19	0.0014	<0.0000019	0.0017	<0.001		0.660	0.00115	2.5	<0.00002	9.63	0.154	10.9	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	17
EarthfillDam-W-Sump	5/12/2021 13:50	ZU2106	M	C131920	<0.0005	<0.01	<0.0002	0.0026	8.44	<0.001	<0.0000019	0.0016	<0.001		0.574	0.00099	2.37	<0.00002	4.25	0.125	7.1	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	0.41
EarthfillDam-W-Sump	5/13/2021 13:50	ZU4966	M	C132331	<0.0005	<0.01	<0.0002	0.0026	8.10	<0.001	<0.0000019	0.0016	<0.001		0.478	0.00089	2.25	<0.00002	2.92	0.109	6.8	<0.00001	<0.005	<0.005	0.00041	<0.005	<0.005	<0.0001	0.15
EarthfillDam-W-Sump	6/24/2021 11:55	AAQ175	M	C144970	<0.0005	0.082	<0.0002	0.0148	13.1	0.0611	<0.0000019	0.0012	<0.001		1.29	0.0013	2.81	<0.00002	58.0	0.199	21.2	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	6.1
EarthfillDam-W-Sump	6/30/2021 13:15	AAZ007	M	C146528	<0.0005	0.05	<0.0002	0.0097	11.8	0.0273	<0.0000019	0.0018	<0.001		0.940	0.00168	2.81	<0.00002	32.2	0.18	22.3	<0.00001	<0.005	<0.005	0.00087	<0.005	<0.005	<0.0001	2.4
EarthfillDam-W-Sump	7/1/2021 13:05	ABB249	M	C146903	0.00053	0.025	<0.0002	0.008	11.1	0.0165	<0.0000019	0.0019	<0.001		0.849	0.00194	2.49	<0.00002	28.4	0.166	17.9	<0.00001	<0.005	<0.005	0.00089	<0.005	<0.005	<0.0001	4.0
EarthfillDam-W-Sump	7/2/2021 11:40	ABB259	M	C146905	<0.0005	0.068	<0.0002	0.0085	10.9	0.0066	<0.0000019	0.0018	<0.001		0.787	0.00185	2.47	<0.00002	21.8	0.17	16.0	<0.00001	<0.005	<0.005	0.00081	<0.005	<0.005	<0.0001	4.7
EarthfillDam-W-Sump	7/3/2021 13:10	ABE025	M	C147272	<0.0005	0.058	<0.0002	0.009	11.0	0.0118	<0.0000019	0.0018	<0.001		0.787	0.00157	2.53	<0.00002	24.7	0.173	17.1	<0.00001	<0.005	<0.005	0.00083	<0.005	<0.005	<0.0001	4.6
EarthfillDam-W-Sump	7/4/2021 10:40	ABD990	M	C147267	<0.0005	0.069	<0.0002	0.0096	10.9	0.0067	<0.0000019	0.0017	<0.001		0.854	0.00171	2.59	<0.00002	20.6	0.166	24.4	<0.00001	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001	4.1
EarthfillDam-W-Sump	7/5/2021 11:00	ABG201	M	C147674	<0.0005	0.061	<0.0002	0.0073	10.5	0.0063	<0.0000019	0.0016	<0.001		0.715	0.00161	2.36	<0.00002	17.0	0.155	13.0	<0.00001	<0.005	<0.005	0.00071	<0.005	<0.005	<0.0001	3.0
EarthfillDam-W-Sump	7/6/2021 13:30	ABJ180	M	C148228	<0.0005	0.028	<0.0002	0.0056	9.67	<0.001	<0.0000019	0.0016	<0.001		0.723	0.00147	2.47	<0.00002	13.9	0.172	11.5	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	0.00012	1.8
EarthfillDam-W-Sump	7/7/2021 13:30	ABK530	M	C148516	<0.0005	0.025	<0.0002	0.006	9.52	0.0026	<0.0000019	0.0016	<0.001		0.731	0.00166	2.62	<0.00002	13.6	0.177	13.0	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	0.00011	0.93
EarthfillDam-W-Sump	7/8/2021 18:00	ABM759	M	C148925	<0.0005	0.046	<0.0002	0.0068	9.84	0.0079	<0.0000019	0.0019	<0.001		0.812	0.00173	2.85	<0.00002	17.4	0.179	13.6	<0.00001	<0.005	0.0078	0.0007	<0.005	<0.005	0.00039	7.8
EarthfillDam-W-Sump	7/9/2021 11:30	ABM746	M	C148923	<0.0005	0.036	<0.0002	0.0069	9.69	0.0063	<0.0000019	0.0017	<0.001		0.804	0.00173	2.77	<0.00002	17.6	0.178	14.4	<0.00001	<0.005	<0.005	0.00071	<0.005	<0.005	0.00011	4.8
EarthfillDam-W-Sump	7/10/2021 15:40	ABP526	M	C149429	<0.0005	0.083	<0.0002	0.006	10.0	0.0165	<0.0000019	0.0018	<0.001		0.749	0.00178	2.59	<0.00002	18.0	0.155	12.8	<0.00001	<0.005	0.0056	0.0007	<0.005	<0.005	0.0002	9.5
EarthfillDam-W-Sump	7/11/2021 14:00	ABP671	M	C149459	<0.0005	<0.01	<0.0002	0.0032	9.71	<0.001	0.0000043	0.0015	<0.001		0.616	0.00141	2.3	<0.00002	4.46	0.169	9.2	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	0.30
EarthfillDam-W-Sump	7/12/2021 6:00	ABP852	M	C149486	<0.0005	0.023	<0.0002	0.0044	9.91	0.0092	<0.0000019	0.0015	<0.001		0.694	0.00161	2.48	<0.00002	10.2	0.169	11.0	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	2.6
EarthfillDam-W-Sump	7/13/2021 16:50	ABU090	M	C150243	<0.0005	0.017	<0.0002	0.0066	10.9	0.0144	<0.0000019	0.0015	<0.001		0.788	0.00187	2.66	<0.00002	16.8	0.182	15.7	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.93
EarthfillDam-W-Sump	7/14/2021 11:50	ABX611	M	C150851	<0.0005	<0.01	<0.0002	0.003	9.03	<0.001	<0.0000019	0.0015	<0.001		0.573	0.00157	2.21	<0.00002	4.36	0.158	8.6	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	0.27
EarthfillDam-W-Sump	7/15/2021 13:20	ABY386	M	C150960	<0.0005	0.015	<0.0002	0.0053	9.97	0.019	<0.0000019	0.0016	<0.001		0.800	0.00168	2.51	<0.00002	13.9	0.18	17.4	<0.00001	<0.005	<0.005	0.00079	<0.005	<0.005	0.00012	7.5
EarthfillDam-W-Sump	7/16/2021 11:30	ABZ185	M	C151029	<0.0005	0.018	<0.0002	0.0049	9.27	0.0136	<0.0000019	0.0015	<0.001		0.725	0.00177	2.35	<0.00002	12.4	0.175	14.4	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	2.5
EarthfillDam-W-Sump	7/16/2021 11:40	ABZ190	D	C151029	<0.0005	0.021	<0.0002	0.0054	9.68	0.0176	<0.0000019	0.0015	<0.001		0.753	0.00169	2.42	<0.00002	14.9	0.185	15.9	<0.00001	<0.005	<0.005	0.00079	<0.005	<0.005	0.00015	1.6
EarthfillDam-W-Sump	7/17/2021 13:15	ACC202	M	C151533	<0.0005	<0.01	<0.0002	0.0026	8.62	<0.001	<0.0000019	0.0014	<0.001		0.540	0.00128	1.8	<0.00002	4.12	0.121	6.2	<0.00001	<0.005	<0.005	0.00052	<0.005	0.0055	<0.0001	0.85
EarthfillDam-W-Sump	7/18/2021 15:20	ACC414	M	C151549	<0.0005	<0.01	<0.0002	0.003	10.3	<0.001	<0.0000019	0.0015	<0.001		0.643	0.00153	2.24	<0.00002	5.18	0.158	7.0	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	7/19/2021 16:20	ACF035	M	C151946	<0.0005	<0.01	<0.0002	0.0025	8.27	<0.001	<0.0000019	0.0014	<0.001		0.551	0.00131	2.12	<0.00002	3.91	0.149	12.7	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	0.13
EarthfillDam-W-Sump	7/20/2021 11:40	ACH812	M	C152456	<0.0005	<0.01	<0.0002	0.0029	7.94	<0.001	<0.0000019	0.0012	<0.001		0.520	0.00107	1.91	<0.00002	3.86	0.117	<3.0	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	7/27/2021 16:30	ACT042	M	C154246	<0.0005	<0.01	<0.0002	0.0037	8.18	<0.001	<0.0000019	0.0013	<0.001		0.547	0.00109	2.09	<0.00002	5.89	0.125	<3.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	0.23
EarthfillDam-W-Sump	7/30/2021 12:30	ACY655	M	C155288	<0.0005	<0.01	<0.0002	0.0035	9.81	<0.001	<0.0000019	0.0014	<0.001		0.626	0.00136	2.36	<0.00002	6.57	0.17	20.3	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/1/2021 15:30	ADC693	M	C155924	<0.0005	<0.01	<0.0002	0.0037	10.2	<0.001	<0.0000019	0.0015	<0.001		0.633	0.00125	2.32	<0.00002	6.52	0.173	9.6	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	0.14
EarthfillDam-W-Sump	8/5/2021 16:20	ADK137	M	C157133	<0.0005	<0.01	<0.0002	0.0031	9.36	<0.001	<0.0000019	0.0014	<0.001		0.562	0.0012	2.14	<0.00002	4.30	0.145	6.6	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/6/2021 11:15	ADK124	M	C157131	<0.0005	<0.01	<0.0002	0.0029	9.45	<0.001	<0.0000019	0.0014	<0.001		0.541	0.00127	2.07	<0.00002	4.34	0.147	6.4	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/7/2021 15:45	ADM459	M	C157545	<0.0005	<0.01	<0.0002	0.0024	7.96	<0.001	<0.0000019	0.0013	<0.001		0.480	0.00121	1.94	<0.00002	3.90	0.115	4.1	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/8/2021 15:45	ADN229	M	C157651	<0.0005	<0.01	<0.0002	0.0025	8.79	<0.001	<0.0000019	0.0015	<0.001		0.558	0.00126	2.05	<0.00002	4.33	0.129	5.4	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/9/2021 10:55	ADM369	M	C157523	<0.0005	<0.01	<0.0002	0.0026	9.23	<0.001	<0.0000019	0.0014	<0.001		0.534	0.0013	2	<0.00002	4.28	0.133	6.1	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/10/2021 15:00	ADP901	M	C158211	<0.0005	<0.01	<0.0002	0.0036	9.29	<0.001	<0.0000019	0.0013	<0.001		0.548	0.00074	2.2	<0.00002	6.06	0.141	5.3	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/11/2021 15:30	ADR990	M	C158615	<0.0005	<0.01	<0.0002	0.0035	9.29	<0.001	<0.0000019	0.0014	<0.001		0.565	0.00074	2.18	<0.00002	6.12	0.141	5.4	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/12/2021 16:30	ADU540	M	C159104	0.00146	<0.01	<0.0002	0.0581	41.9	<0.001	<0.0000019	0.0221	0.0016		6.23	0.0111	0.777	<0.00002	406	0.55	357	0.000027	<0.005	<0.005	0.00809	<0.005	<0.005	<0.0001	3.7
EarthfillDam-W-Sump	8/13/2021 11:20	ADU547	M	C159105	<0.0005	<0.01	<0.0002	0.0037	10.6	<0.001	<0.0000019	0.0013	<0.001		0.612	0.00072	2.24	<0.00002	6.70	0.153	8.7	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/14/2021 17:30	ADW202	M	C159435	<0.0005	<0.01	<0.0002	0.0042	11.2	<0.001	<0.0000019	0.0014	<0.001		0.663	0.00107	2.45	<0.00002	7.08	0.178	9.5	<0.00001	<0.005	<0.005	0.00061	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/15/2021 16:00	ADW429	M	C159489	<0.0005	<0.01	<0.0002	0.0039	11.2	<0.001	<0.0000019	0.0014	<0.001		0.652	0.00107	2.38	<0.00002	6.96	0.169	9.0	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.30
EarthfillDam-W-Sump	8/16/2021 16:30	ADY264	M	C159861	<0.0005	<0.01	<0.0002	0.0037	11.3	<0.001	<0.0000019	0.0014	<0.001		0.684	0.00102	2.41	<0.00002	7.11	0.182	10.6	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/17/2021 15:30	AED547	M	C160795	<0.0005	<0.01	<0.0002	0.0038	11.7	<0.001	<0.0000019	0.0014	<0.001		0.681	0.00117	2.43	<0.00002	7.38	0.173	10.3	<0.00001	<0.005	<0.005	0.00061	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/18/2021 16:30	AED518	M	C160793	<0.0005	<0.01	<0.0002	0.0038	11.6	<0.001	<0.0000019	0.0013	<0.001		0.672	0.00089	2.44	<0.00002	7.52	0.17	11.5	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/19/2021 18:00	AEF599	M	C161077	<0.0005	<0.01	<0.0002	0.0037	11.8	<0.001	<0.0000019	0.0013	<0.001		0.679	0.00102	2.43	<0.00002	7.69	0.174	9.9	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/20/2021 11:50	AEF524	M	C161059	<0.0005	<0.01	<0.0002	0.0039	11.9	<0.001	<0.0000019	0.0013	<0.001		0.687	0.00076	2.46	<0.00002	7.85	0.183	10.4	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/21/2021 17:20	AEI350	M	C161420	<0.0005	<0.01	<0.0002	0.0039	12.3	<0.001	<0.0000019	0.0013	<0.001		0.709	0.00108	2.49	<0.00002	8.30	0.182	11.6	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/22/2021 16:30	AEI412	M	C161433	<0.0005	<0.01	<0.0002	0.0038	11.8	<0.001	<0.0000019	0.0013	<0.001		0.691	0.00089	2.45	<0.00002	8.25	0.171	11.8	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/23/2021 14:00	AEL592	M	C161925	<0.0005	<0.01	<0.0002	0.0037	10.5	<0.001	<0.0000019	0.0012	<0.001		0.649	0.00109	2.32	<0.00002	7.09	0.175	10.8	<0.00001	<0.005	<0.005	0.00068	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/24/2021 14:30	AEN131	M	C162291	<0.0005	<0.01	<0.0002	0.0034	10.7	<0.001	<0.0000019	0.0015	<0.001		0.607	0.00125	2.32	<0.00002	5.04	0.15	8.9	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/25/2021 12:00	AEP242	M	C162703	<0.0005	<0.01	<0.0002	0.0038	12.2	<0.001	<0.0000019	0.0013	<0.001		0.705	0.00121	2.45	<0.00002	8.71	0.189	11.8	<0.00001	<0.005	<0.005	0.00072	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/26/2021 14:35	AER557	M	C163145	<0.0005	<0.01	<0.0002	0.003	9.27	<0.001	<0.0000019	0.0014	<0.001		0.620	0.00115	2.24	<0.00002	4.38	0.162	4.8	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/27/2021 11:15	AER548	M	C163144	<0.0005	<0.01	<0.0002	0.003	8.96	<0.001	<0.0000019	0.0014	<0.001		0.602	0.0012	2.2	<0.00002	4.24	0.155	14.1	<0.00001	<0.005	<0.005	0.00067	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/28/2021 14:20	AEV128	M	C163811	<0.0005	<0.01	<0.0002	0.0028	9.21	<0.001	<0.0000019	0.0013	<0.001		0.519	0.00134	1.99	<0.00002	4.54	0.133	4.8	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	0.14
EarthfillDam-W-Sump	8/29/2021 14:20	AEV012	M	C163786	<0.0005	<0.01	<0.0002	0.0034	9.38	<0.001	<0.0000019	0.0014	<0.001		0.639	0.00129	2.27	<0.00002	4.49	0.161	7.5	<0.00001	<0.005	<0.005	0.00068	<0.005	<0.005	<0.0001	0.18
EarthfillDam-W-Sump	8/30/2021 13:45	AEX833	M	C164176	<0.0005	<0.01	<0.0002	0.0031	9.54	<0.001	<0.0000019	0.0012	<0.001		0.531	0.00141	2.03	<0.00002	4.70	0.136	4.2	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	8/31/2021 13:35	AFA833	M	C164798	<0.0005	<0.01	<0.0002	0.0029	9.20	<0.001	<0.0000019	0.0012	<0.001		0.530	0.00142	2.01	<0.00002	4.47	0.136	4.3	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/1/2021 12:20	AFC992	M	C165103	<0.0005	<0.01	<0.0002	0.0039	10.5	<0.001	<0.0000019	0.001	<0.001		0.613	0.00083	2.27	<0.00002	8.06	0.167	5.8	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/2/2021 15:30	AFF608	M	C165563	<0.0005	<0.01	<0.0002	0.0034	10.7	<0.001	<0.0000019	0.0011	<0.001		0.582	0.00076	2.3	<0.00002	8.17	0.17	8.1	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/3/2021 11:40	AFF866	M	C165588	<0.0005	<0.01	<0.0002	0.0039	12.5	<0.001	<0.0000019	0.0012	<0.001		0.715	0.00079	2.4	<0.00002	9.18	0.186	15.5	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/4/2021 12:50	AFH290	M	C165785	<0.0005	<0.01	<0.0002	0.0036	11.8	<0.001	<0.0000019	0.0011	<0.001		0.654	0.00067	2.71	<0.00002	8.65	0.192	13.3	<0.00001	<0.005	<0.005	0.00078	<0.005	<0.005	<0.0001	0.15
EarthfillDam-W-Sump	9/5/2021 16:10	AFI821	M	C166081	<0.0005	<0.01	<0.0002	0.0033	10.3	<0.001	<0.0000019	0.0011	<0.001		0.565	0.00082	2.28	<0.00002	7.83	0.167	7.2	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.23
EarthfillDam-W-Sump	9/6/2021 10:40	AFI720	M	C166063	<0.0005	<0.01	<0.0002	0.0039	11.7	<0.001	<0.0000019	<0.001	<0.001		0.649	0.00062	2.26	<0.00002	8.70	0.172	9.0	<0.00001	<0.005	<0.005	0.00069	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/7/2021 14:40	AFL346	M	C166557	<0.0005	<0.01	<0.0002	0.0044	11.7	<0.001	<0.0000019	0.0014	<0.001		0.647	0.00057	2.38	<0.00002	8.70	0.172	9.1	<0.00001	<0.005	<0.005	0.00069	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/8/2021 14:30	AFO058	M	C167059	<0.0005	<0.01	<0.0002	0.0042	12.3	<0.001	<0.0000019	0.0011	<0.001		0.779	0.00033	2.72	<0.00002	9.33	0.207	16.4	<0.00001	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001	<0.10

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
EarthfillDam-W-Sump	9/9/2021 16:40	AFQ846	M	C167445	<0.0005	<0.01	<0.0002	0.0042	12.3	<0.001	<0.0000019	0.0011	<0.001		0.760	0.00039	2.67	<0.00002	9.31	0.205	12.7	<0.00001	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/10/2021 11:10	AFQ882	M	C167449	<0.0005	<0.01	<0.0002	0.0045	13.0	<0.001	<0.0000019	0.0011	<0.001		0.805	0.00048	2.69	<0.00002	9.77	0.215	14.4	<0.00001	<0.005	<0.005	0.00079	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/11/2021 4:30	AFV354	M	C168029	<0.0005	<0.01	<0.0002	0.0042	12.1	<0.001	<0.0000019	0.0011	<0.001		0.756	0.00071	2.61	<0.00002	9.08	0.207	15.0	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	0.21
EarthfillDam-W-Sump	9/12/2021 12:10	AFV418	M	C168037	<0.0005	<0.01	<0.0002	0.0042	11.9	<0.001	<0.0000019	0.0011	<0.001		0.756	0.00062	2.51	<0.00002	9.03	0.202	14.8	<0.00001	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/13/2021 6:00	AFV245	M	C168020	<0.0005	<0.01	<0.0002	0.0044	12.1	<0.001	<0.0000019	0.0011	<0.001		0.746	0.00063	2.52	<0.00002	9.21	0.199	16.0	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/16/2021 14:55	AGG331	M	C169805	<0.0005	<0.01	<0.0002	0.0032	10.6	<0.001	<0.0000019	0.0012	<0.001		0.570	0.00126	1.95	<0.00002	5.03	0.147	12.7	<0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/17/2021 11:45	AGG309	M	C169799	<0.0005	<0.01	<0.0002	0.0036	13.1	<0.001	<0.0000019	0.0014	<0.001		0.693	0.00164	2.26	<0.00002	6.56	0.17	12.7	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	<0.10
EarthfillDam-W-Sump	9/18/2021 15:45	AGJ636	M	C170329	<0.0005	<0.01	<0.0002	0.0034	12.4	<0.001	<0.0000019	0.0013	<0.001		0.675	0.0014	2.24	<0.00002	6.08	0.18	13.9	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	0.25
EarthfillDam-W-Sump	9/19/2021 13:15	AGJ666	M	C170331	<0.0005	<0.01	<0.0002	0.0044	13.1	0.0019	<0.0000019	0.0015	<0.001		0.838	0.00164	2.47	<0.00002	10.5	0.208	18.1	<0.00001	<0.005	<0.005	0.00093	<0.005	<0.005	<0.0001	1.4
EarthfillDam-W-Sump	9/20/2021 13:15	AGM225	M	C170680	<0.0005	<0.01	<0.0002	0.0027	8.32	<0.001	<0.0000019	0.0018	<0.001		0.797	0.00102	2.69	<0.00002	2.14	0.146	8.4	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	0.91
EarthfillDam-W-Sump	9/21/2021 14:10	AGO665	M	C171134	<0.0005	<0.01	<0.0002	0.0045	13.6	0.0013	<0.0000019	0.0014	<0.001		0.816	0.00171	2.52	<0.00002	10.9	0.217	18.0	<0.00001	<0.005	<0.005	0.00094	<0.005	<0.005	<0.0001	0.52
EarthfillDam-W-Sump	9/22/2021 14:20	AGR068	M	C171568	<0.0005	<0.01	<0.0002	0.0046	13.7	0.0011	<0.0000019	0.0014	<0.001		0.823	0.00179	2.47	<0.00002	12.3	0.219	20.6	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001	0.24
EarthfillDam-W-Sump	9/23/2021 14:10	AGT566	M	C171954	<0.0005	<0.01	<0.0002	0.0047	13.5	<0.001	<0.0000019	0.0012	<0.001		0.761	0.00154	2.45	<0.00002	11.1	0.192	17.9	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	<0.0001	0.22
EarthfillDam-W-Sump	9/24/2021 12:15	AGV851	M	C172263	<0.0005	<0.01	<0.0002	0.0043	14.1	<0.001	<0.0000019	0.0013	<0.001		0.743	0.00148	3.09	<0.00002	11.4	0.214	16.5	<0.00001	<0.005	<0.005	0.00098	<0.005	<0.005	<0.0001	0.87
EarthfillDam-W-Sump	9/25/2021 12:15	AGX497	M	C172580	<0.0005	<0.01	<0.0002	0.0043	15.4	<0.001	<0.0000019	0.0012	<0.001		0.833	0.00167	2.41	<0.00002	12.3	0.212	35.9	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001	0.59
EarthfillDam-W-Sump	9/26/2021 10:45	AGX365	M	C172552	<0.0005	<0.01	<0.0002	0.0043	15.9	<0.001	<0.0000019	0.0012	<0.001		0.853	0.0017	2.42	<0.00002	12.9	0.219	15.4	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001	0.30
EarthfillDam-W-Sump	9/27/2021 10:20	AGZ869	M	C172958	<0.0005	<0.01	<0.0002	0.0046	15.6	<0.001	<0.0000019	0.0014	<0.001		0.846	0.0016	2.54	<0.00002	13.4	0.226	17.6	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	0.26
EarthfillDam-W-Sump	9/28/2021 16:00	AHC017	M	C173431	<0.0005	<0.01	<0.0002	0.0054	19.1	<0.001	<0.0000019	0.0014	<0.001		1.09	0.00205	2.84	<0.00002	18.3	0.276	25.4	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	0.45
EarthfillDam-W-Sump	9/29/2021 16:30	AHF734	M	C174181	<0.0005	<0.01	<0.0002	0.0058	17.2	<0.001	<0.0000019	0.0015	<0.001		0.958	0.00236	2.92	<0.00002	17.3	0.248	21.2	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	0.31
EarthfillDam-W-Sump	9/30/2021 16:20	AHF784	M	C174188	<0.0005	<0.01	<0.0002	0.006	16.7	<0.001	<0.0000019	0.0015	<0.001		0.986	0.0021	2.78	<0.00002	18.1	0.241	24.2	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001	0.44
EarthfillDam-W-Sump	10/1/2021 13:00	AHF787	M	C174189	<0.0005	<0.01	<0.0002	0.0061	17.4	<0.001	<0.0000019	0.0016	<0.001		1.00	0.00233	2.95	<0.00002	18.7	0.249	22.5	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.52
EarthfillDam-W-Sump	10/2/2021 14:30	AHI564	M	C174687	<0.0005	<0.01	<0.0002	0.0062	17.6	<0.001	<0.0000019	0.0015	<0.001		1.08	0.00228	2.98	<0.00002	19.8	0.259	22.3	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	0.27
EarthfillDam-W-Sump	10/3/2021 15:00	AHI568	M	C174689	<0.0005	<0.01	<0.0002	0.0057	18.3	<0.001	<0.0000019	0.0014	<0.001		1.10	0.00242	3.07	<0.00002	20.6	0.271	23.5	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	0.38
EarthfillDam-W-Sump	10/4/2021 10:00	AHI555	M	C174685	<0.0005	<0.01	<0.0002	0.0063	17.0	<0.001	<0.0000019	0.0016	<0.001		1.07	0.00222	2.98	<0.00002	20.3	0.247	26.0	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	0.62
EarthfillDam-W-Sump	10/5/2021 11:40	AHO718	M	C175650	<0.0005	<0.01	<0.0002	0.0055	14.6	<0.001	<0.0000019	0.0014	<0.001		0.982	0.0022	2.69	<0.00002	18.3	0.215	21.2	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.23
EarthfillDam-W-Sump	10/6/2021 14:45	AHR786	M	C176098	<0.0005	<0.01	<0.0002	0.0045	12.2	<0.001	<0.0000019	0.0014	<0.001		0.946	0.002	2.41	<0.00002	16.4	0.2	12.3	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.20
EarthfillDam-W-Sump	10/7/2021 12:10	AHU811	M	C176559	<0.0005	<0.01	<0.0002	0.0045	11.8	<0.001	<0.0000019	0.0013	<0.001		0.928	0.00195	2.4	<0.00002	16.1	0.195	10.3	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	0.16
EarthfillDam-W-Sump	10/8/2021 11:30	AHU799	M	C176557	<0.0005	<0.01	<0.0002	0.0048	12.1	<0.001	<0.0000019	0.0013	<0.001		0.918	0.00207	2.4	<0.00002	16.6	0.195	11.1	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	0.16
EarthfillDam-W-Sump	10/9/2021 16:40	AHX006	M	C176838	<0.0005	<0.01	<0.0002	0.0054	13.3	<0.001	<0.0000019	0.0015	<0.001		0.921	0.00188	3.4	<0.00002	17.2	0.219	20.3	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	1.3
EarthfillDam-W-Sump	10/10/2021 15:00	AHX002	M	C176837	<0.0005	<0.01	<0.0002	0.0054	13.3	<0.001	<0.0000019	0.0014	<0.001		0.913	0.00188	3.3	<0.00002	17.9	0.217	20.5	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	0.16
EarthfillDam-W-Sump	10/11/2021 12:15	AHY661	M	C177084	<0.0005	<0.01	<0.0002	0.0047	11.9	<0.001	<0.0000019	0.0014	<0.001		0.998	0.00198	2.48	<0.00002	16.6	0.191	12.8	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	0.49
EarthfillDam-W-Sump	10/12/2021 11:25	AIB245	M	C177600	<0.0005	<0.01	<0.0002	0.0046	11.7	<0.001	<0.0000019	0.0013	<0.001		0.957	0.00207	2.47	<0.00002	17.3	0.192	11.4	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	0.15
EarthfillDam-W-Sump	10/13/2021 14:25	AIE375	M	C178189	<0.0005	<0.01	<0.0002	0.0053	12.1	<0.001	<0.0000019	0.0014	<0.001		1.04	0.00199	2.49	<0.00002	21.3	0.209	17.4	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	0.20
EarthfillDam-W-Sump	10/14/2021 13:50	AIG810	M	C178651	<0.0005	<0.01	<0.0002	0.0062	13.0	<0.001	<0.0000019	0.0013	<0.001		0.936	0.00197	2.38	<0.00002	18.2	0.189	9.5	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	0.25
EarthfillDam-W-Sump	10/15/2021 13:05	AII744	M	C178993	<0.0005	<0.01	<0.0002	0.0059	13.3	<0.001	<0.0000019	0.0014	<0.001		0.953	0.00188	3.37	<0.00002	18.6	0.223	21.6	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.17
EarthfillDam-W-Sump	10/16/2021 12:25	AIL332	M	C179338	<0.0005	<0.01	<0.0002	0.0059	12.8	<0.001	<0.0000019	0.0012	<0.001		0.908	0.00186	2.35	<0.00002	17.9	0.184	9.4	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	0.30
EarthfillDam-W-Sump	10/17/2021 23:35	AIL268	M	C179325	<0.0005	<0.01	<0.0002	0.0059	13.1	<0.001	<0.0000019	0.0012	<0.001		0.940	0.0018	2.39	<0.00002	21.9	0.184	16.4	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	0.19
EarthfillDam-W-Sump	10/19/2021 16:10	AIR753	M	C180384	<0.0005	<0.01	<0.0002	0.0062	13.5	<0.001	<0.0000019	0.0015	0.0018		0.997	0.00213	2.58	<0.00002	22.5	0.183	21.6	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	0.68
EarthfillDam-W-Sump	10/20/2021 17:00	AIT536	M	C180689	<0.0005	<0.01	<0.0002	0.0064	13.3	<0.001	<0.0000019	0.0029	<0.001		1.03	0.00189	3.31	<0.00002	19.5	0.203	21.2	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	0.54
EarthfillDam-W-Sump	10/21/2021 15:30	AIW014	M	C181069	<0.0005	<0.01	<0.0002	0.0063	13.0	<0.001	<0.0000019	0.0015	<0.001		1.00	0.00187	3.17	<0.00002	19.5	0.206	20.5	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	0.59
EarthfillDam-W-Sump	10/22/2021 12:00	AIW019	M	C181072	<0.0005	<0.01	<0.0002	0.006	12.8	<0.001	<0.0000019	0.0014	<0.001		0.978	0.00182	3.17	<0.00002	17.6	0.194	19.6	<0.00001	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001	0.48
EarthfillDam-W-Sump	10/23/2021 14:30	AIZ373	M	C181550	<0.0005	<0.01	<0.0002	0.0054	12.8	<0.001	<0.0000019	0.0015	0.0014		0.973	0.00185	3.21	<0.00002	17.5	0.191	20.0	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	0.61
EarthfillDam-W-Sump	10/24/2021 14:30	AIZ353	M	C181544	<0.0005	<0.01	<0.0002	0.0057	12.8	<0.001	<0.0000019	0.0014	<0.001		0.993	0.00178	3.32	<0.00002	18.0	0.192	19.9	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	0.30
EarthfillDam-W-Sump	10/25/2021 7:00	AIZ360	M	C181547	<0.0005	<0.01	<0.0002	0.0059	13.1	<0.001	<0.0000019	0.0015	<0.001		1.02	0.0017	3.39	<0.00002	18.7	0.194	20.2	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	0.32
Farmers-Pond-EOP	5/18/2021 10:30	ZV2804	M	C133850																								2.7
L3-DC-DS	3/19/2021 15:45	ZN1580	M	C118512																								2300
L3-DC-DS	3/28/2021 16:10	ZN9525	M	C120093																								24
L3-DC-DS	3/31/2021 18:20	ZO4120	M	C121130																								310
L3-DC-DS	4/1/2021 10:40	ZO4128	M	C121132																								65
L3-DC-DS	4/3/2021 10:20	ZO6456	M	C121575																								14
L3-DC-DS	4/5/2021 10:40	ZO7525	M	C121801																								17
L3-DC-DS	4/9/2021 15:55	ZP3596	M	C123204																								15
L3-DC-DS	4/14/2021 17:30	ZP9476	M	C124397																								18
L3-DC-DS	5/5/2021 17:30	ZT3128	M	C130491																								4.4
L3-DC-DS	5/6/2021 14:30	ZT3108	M	C130484																								4.2
L3-DC-DS	5/25/2021 16:10	ZW1246	M	C135423																								2.9
L3-DC-DS	5/27/2021 18:00	ZW4838	M	C136103																								3.5
L3-DC-DS	6/17/2021 12:30	AAC471	M	C142866																								1.3
L3-DC-DS	8/22/2021 17:40	AEI419	M	C161433																								120
L3-DC-US	3/19/2021 15:40	ZN1579	M	C118512																								2300
L3-DC-US	3/28/2021 16:00	ZN9524	M	C120093																								24
L3-DC-US	3/31/2021 18:15	ZO4119	M	C121130																								220
L3-DC-US	4/1/2021 10:30	ZO4127	M	C121132																								68
L3-DC-US	4/3/2021 10:10	ZO6455	M	C121575																								14
L3-DC-US	4/5/2021 10:30	ZO7524	M	C121801																								15
L3-DC-US	4/9/2021 15:45	ZP3595	M	C123204																								14
L3-DC-US	4/14/2021 17:45	ZP9475	M	C124397																								20
L3-DC-US	5/5/2021 17:40	ZT3127	M	C130491																								3.5
L3-DC-US	5/6/2021 14:20	ZT3107	M	C130484																								2.7

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
L3-DC-US	5/25/2021 16:00	ZW1245	M	C135423																								5.3
L3-DC-US	5/27/2021 17:50	ZW4839	M	C136103																								2.9
L3-DC-US	6/17/2021 13:00	AAC473	M	C142866																								3.9
L3-DC-US	8/22/2021 18:00	AEI420	M	C161433																								110
L3-E-DC-Sump	4/5/2021 10:20	ZO7523	M	C121801																								170
L3-W-DC-EOP	3/31/2021 17:30	ZO4118	M	C121130																								2900
L3-W-DC-EOP	4/1/2021 10:20	ZO4126	M	C121132																								120
L3-W-DC-EOP	4/5/2021 10:10	ZO7522	M	C121801																								87
L3-W-DC-EOP	5/2/2021 16:55	ZS6052	M	C129102																								210
L3-W-DC-EOP	5/4/2021 15:30	ZS9947	M	C129944																								87
L3-W-DC-EOP	5/5/2021 17:20	ZT3126	M	C130491																								64
L3-W-DC-EOP	5/6/2021 14:10	ZT3106	M	C130484																								17
L3-W-DC-EOP	5/18/2021 10:05	ZV2803	M	C133850																								100
L3-W-DC-EOP	5/21/2021 9:20	ZV5658	M	C134400																								10
L3-W-DC-EOP	5/25/2021 15:50	ZW1244	M	C135423																								41
L3-W-DC-EOP	5/27/2021 17:40	ZW4840	M	C136103																								3.0
L3-W-DC-EOP	6/7/2021 16:20	ZY3091	M	C139476																								8.7
L3-W-DC-EOP	6/17/2021 12:50	AAC472	M	C142866																								20
L3-W-DC-EOP	7/21/2021 18:40	ACH935	M	C152481																								320
L3-W-DC-EOP	7/22/2021 11:50	ACL557	M	C152988																								38
L3-W-DC-EOP	8/6/2021 10:00	ADK127	M	C157131																								18
L3-W-DC-EOP	8/7/2021 9:40	ADM464	M	C157545																								8.7
L3-W-DC-EOP	11/6/2021 9:55	AKD996	M	C186250																								17
L3-W-DC-Sump	3/19/2021 15:30	ZN1578	M	C118512																								110
L3-W-DC-Sump	5/15/2021 10:45	ZU7898	M	C132915																								4.4
L3-W-DC-Sump	7/20/2021 16:25	ACH820	M	C152456																								13
L3-W-DC-Sump	8/22/2021 17:30	AEI421	M	C161433																								120
LBCD-Sump-BT	3/30/2021 11:30	ZO2680	M	C120790	<0.0025	<0.05	<0.001	0.258	70.8	0.115	<0.0000019	0.0409	0.0104		10.9	0.00657	4.92	<0.0001	1420	1.06	847	<0.00005	<0.025	<0.025	0.00387	<0.025	<0.025	<0.0005	150
LBCD-Sump-BT	6/9/2021 11:10	ZY6851	M	C140198	<0.0005	<0.01	<0.0002	0.0489	32.9	0.0053	<0.0000019	0.0028	0.0021		2.99	0.0046	4.14	<0.00002	182	0.481	169	0.000018	<0.005	<0.005	0.00198	<0.005	<0.005	<0.0001	5.8
LBCD-Sump-BT	9/18/2021 16:00	AGJ638	M	C170329	<0.0005	<0.01	<0.0002	0.0038	11.4	0.0025	<0.0000019	0.0022	<0.001		0.995	0.00158	2.19	<0.00002	6.35	0.172	14.7	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	<0.0001	47
LBCD-Sump-BT	10/12/2021 11:00	AIB246	M	C177600	<0.0005	<0.01	<0.0002	0.0027	9.71	<0.001	<0.0000019	0.0015	<0.001		0.788	0.00153	2.01	<0.00002	5.17	0.146	8.4	<0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	0.14
LBEX_B1	3/19/2021 11:00	ZM8863	M	C118061	0.00455	<0.01	<0.0002	0.0069	28.7	0.018	<0.0000019	0.0048	0.0034		8.68	0.00276	2.06	<0.00002	17.1	0.347	51.8	0.000019	<0.005	<0.005	0.00311	<0.005	<0.005	<0.0001	130
LBEX_B1	4/6/2021 12:30	ZO9478	M	C122250	0.00156	<0.01	<0.0002	0.0101	40.7	0.0419	<0.0000019	0.0059	0.0027		4.44	0.00299	2.71	<0.00002	28.3	0.64	64.1	0.000017	<0.005	<0.005	0.00467	<0.005	<0.005	<0.0001	24
LBEX_B1	5/2/2021 11:05	ZS6045	M	C129102	0.00111	<0.01	<0.0002	0.0161	58.1	0.0173	<0.0000019	0.0063	0.0033		4.14	0.00291	2.52	<0.00002	45.1	1.31	105	0.000021	<0.005	<0.005	0.00641	<0.005	<0.005	<0.0001	23
LBEX_B1	5/13/2021 16:45	ZU4940	M	C132324	0.0011	<0.01	<0.0002	0.0296	73.8	0.0026	<0.0000019	0.0035	0.0029		5.38	0.00929	2.73	<0.00002	85.2	0.945	136	0.000025	<0.005	<0.005	0.00787	<0.005	<0.005	<0.0001	2.5
LBEX_B1	6/13/2021 9:50	ZZ1992	M	C141057	0.00143	<0.01	<0.0002	0.0435	87.4	0.0054	<0.0000019	0.0031	0.0028		6.44	0.00642	3.84	<0.00002	138	0.725	138	0.000026	<0.005	<0.005	0.0094	<0.005	<0.005	0.00014	3.1
LBEX_B1	7/19/2021 10:35	ACF038	M	C151946	0.00128	0.047	<0.0002	0.0386	73.8	0.0029	<0.0000019	0.0046	0.0023		6.39	0.00475	3.06	<0.00002	123	0.724	139	0.000023	<0.005	<0.005	0.00967	<0.005	<0.005	0.00027	3.0
LBEX_B1	8/28/2021 15:35	AEV127	M	C163811	0.00111	<0.01	<0.0002	0.0217	52.1	<0.001	<0.0000019	0.005	0.0016		5.59	0.00985	3.19	<0.00002	63.5	0.623	90.2	0.00002	<0.005	<0.005	0.00653	<0.005	<0.005	<0.0001	37
LBEX_B1	9/20/2021 15:10	AGM226	M	C170680	0.00117	<0.01	<0.0002	0.0521	103	0.0083	<0.0000019	0.0035	0.0031		6.78	0.00442	4.58	<0.00002	181	0.651	149	0.000016	<0.005	<0.005	0.011	<0.005	<0.005	0.00011	3.2
LBEX_B1	10/10/2021 15:55	AHX003	M	C176837	0.00092	<0.01	<0.0002	0.0445	86.4	0.0033	<0.0000019	0.0027	0.0024		5.95	0.00167	4.88	<0.00002	161	0.646	126	0.000015	<0.005	<0.005	0.00965	<0.005	<0.005	0.00014	0.82
LBEX_B1	11/7/2021 16:10	AKE005	M	C186252	0.00491	<0.01	<0.0002	0.0248	47.9	0.0624	<0.0000019	0.0051	0.0033		6.23	0.00625	2.06	<0.00002	55.3	0.505	75.5	0.000012	<0.005	<0.005	0.0056	<0.005	0.0079	<0.0001	21
LBEX_PAG_SUMP	8/7/2021 17:30	ADM463	M	C157545	0.127	8.72	<0.0002	0.203	93.7	5.91	<0.0000019	<0.001	0.99		9.84	0.0105	3.08	<0.00002	49.5	0.689	473	0.000102	<0.005	<0.005	0.0215	<0.005	2.29	<0.0001	210
LBEX_PAG_SUMP	9/16/2021 16:05	AGG333	M	C169805	0.00133	0.017	<0.0002	0.085	167	2.78	<0.0000019	0.0101	0.257		11.6	0.00917	2.9	<0.00002	193	0.836	570	0.000064	<0.005	<0.005	0.00446	<0.005	0.228	<0.0001	25
LBEX-B0	4/8/2021 16:05	ZP1744	M	C122796	<0.001	<0.02	<0.0004	0.107	128	1.91	<0.0000019	0.0089	0.0983		4.23	0.00405	4.3	<0.00004	207	1.1	461	0.00004	<0.01	<0.01	0.0268	<0.01	0.11	<0.0002	7.6
LBEX-B0	5/23/2021 10:05	ZV8623	M	C134923	<0.001	<0.02	<0.0004	0.122	120	0.394	<0.0000019	0.0099	0.023		4.97	0.0025	3.12	<0.00004	218	1.1	393	<0.00002	<0.01	<0.01	0.028	<0.01	<0.01	<0.0002	3.2
LBEX-B0	7/19/2021 10:55	ACF039	M	C151946	<0.0005	<0.01	<0.0002	0.117	156	<0.001	<0.0000019	0.0089	0.055		5.67	0.00154	3.54	<0.00002	187	1.38	448	0.000028	<0.005	<0.005	0.0368	<0.005	0.0353	<0.0001	1.5
LBEX-B0	9/16/2021 16:25	AGG334	M	C169805	0.00183	0.016	<0.0002	0.128	153	0.79	<0.0000019	0.0068	0.0569		5.35	0.00084	3.59	<0.00002	232	1.08	494	0.000036	<0.005	<0.005	0.0281	<0.005	0.0813	<0.0001	7.1
LBEX-B0	10/17/2021 10:20	AIL269	M	C179325	0.00071	<0.01	<0.0002	0.111	156	0.458	<0.0000019	0.0046	0.0294		4.27	0.00295	3	<0.00002	193	0.91	423	0.000016	<0.005	<0.005	0.0239	<0.005	0.0409	<0.0001	27
LBEX-B0	11/7/2021 16:30	AKE006	M	C186252	0.00154	<0.01	<0.0002	0.14	136	0.738	<0.0000019	0.0048	0.062		4.30	0.00094	3.66	<0.00002	213	0.994	480	0.000031	<0.005	<0.005	0.028	<0.005	0.118	<0.0001	18
LBGC-Debris-US	3/19/2021 11:45	ZM8868	M	C118061																								160
LBGC-Debris-US	3/28/2021 14:00	ZN9520	M	C120093																								260
LBGC-Debris-US	4/1/2021 12:05	ZO4129	M	C121132																								>4000
LBGC-Debris-US	4/6/2021 13:15	ZO9476	M	C122250																								3700
LBGC-Debris-US	4/29/2021 14:00	ZS2294	M	C128584																								>4000
LBGC-Debris-US	5/8/2021 11:40	ZT6591	M	C130995																								>40000
LBGC-Debris-US	5/12/2021 14:40	ZU2128	M	C131927																								>4000
LBGC-Debris-US	5/18/2021 11:20	ZV2805	M	C133850																								>4000
LBGC-Debris-US	5/27/2021 14:00	ZW4836	M	C136103																								>4000
LBGC-Debris-US	6/3/2021 14:15	ZX7155	M	C138404																								>4000
LBGC-Debris-US	6/12/2021 15:40	ZZ1990	M	C141056																								3100
LBGC-Debris-US	6/18/2021 13:00	AAC478	M	C142867																								>4000
LBGC-Debris-US	6/24/2021 10:25	AAQ178	M	C144970																								910
LBGC-Debris-US	7/3/2021 14:45	ABE029	M	C147272																								11
LBGC-Debris-US	7/10/2021 14:50	ABP531	M	C149429																								5.0
LBGC-Debris-US	7/17/2021 11:35	ACC248	M	C151542																								170
LBGC-Debris-US	7/22/2021 10:25	ACL555	M	C152988																								>4000
LBGC-Debris-US	8/7/2021 17:15	ADM466	M	C157545																								1800
LBGC-Debris-US	8/22/2021 17:00	AEI417	M	C161433																								>4000
LBGC-Debris-US	8/26/2021 16:15	AER562	M	C163145																								59

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
LBGC-Debris-US	9/12/2021 15:20	AFV420	M	C168037																									1.3
LBGC-Debris-US	9/17/2021 13:15	AGG312	M	C169799																									3.5
LBGC-Debris-US	10/24/2021 15:00	AIZ354	M	C181544																									1.6
LBGC-Debris-US	10/28/2021 10:20	AJL911	M	C183658																									2.2
LBGC-OUT	3/19/2021 12:20	ZM8869	M	C118061																									80
LBGC-OUT	3/28/2021 14:20	ZN9523	M	C120093																									350
LBGC-OUT	4/1/2021 12:15	ZO4130	M	C121132																									78
LBGC-OUT	4/6/2021 13:25	ZO9477	M	C122250																									34
LBGC-OUT	4/29/2021 14:10	ZS2295	M	C128584																									>4000
LBGC-OUT	5/8/2021 11:10	ZT6590	M	C130995																									>4000
LBGC-OUT	5/12/2021 14:00	ZU2127	M	C131927																									>4000
LBGC-OUT	5/18/2021 12:05	ZV2806	M	C133850																									>4000
LBGC-OUT	5/27/2021 14:20	ZW4837	M	C136103																									>4000
LBGC-OUT	6/3/2021 13:20	ZX7154	M	C138404																									>4000
LBGC-OUT	6/12/2021 15:50	ZZ1991	M	C141056																									2000
LBGC-OUT	6/18/2021 12:40	AAC477	M	C142867																									2200
LBGC-OUT	6/24/2021 11:30	AAQ179	M	C144970																									190
LBGC-OUT	7/3/2021 13:25	ABE028	M	C147272																									19
LBGC-OUT	7/10/2021 15:00	ABP532	M	C149429																									5.5
LBGC-OUT	7/17/2021 12:50	ACC249	M	C151542																									82
LBGC-OUT	7/22/2021 10:40	ACL556	M	C152988																									1200
LBGC-OUT	8/7/2021 16:05	ADM465	M	C157545																									>4000
LBGC-OUT	8/22/2021 16:50	AEI418	M	C161433																									>4000
LBGC-OUT	8/26/2021 14:55	AER561	M	C163145																									7.4
LBGC-OUT	9/12/2021 15:30	AFV421	M	C168037																									1.8
LBGC-OUT	9/17/2021 12:05	AGG311	M	C169799																									10
LBGC-OUT	10/24/2021 15:20	AIZ355	M	C181544																									1.7
LBGC-OUT	10/28/2021 10:55	AJL912	M	C183658																									0.81
MWTF-PAG-POND	1/6/2021 7:00	ZD0207	M	C100919	0.00073	<0.005(	<0.00020	0.0557	27.7	0.0477	<0.000050	0.0089	0.0059		3.14	0.00251	4.28	<0.000020	167	0.400	117	<0.000010	<0.0050	<0.0050	0.00239	<0.0050	<0.0050	0.00011	
MWTF-PAG-POND	1/13/2021 9:05	ZD7921	M	C102466	0.00093	<0.005(	<0.00020	0.0457	24.8	0.0147	<0.000050	0.0072	0.0039		3.12	0.00228	4.75	<0.000020	130	0.371	89.0	<0.000010	<0.0050	<0.0050	0.00268	<0.0050	<0.0050	0.00012	
MWTF-PAG-POND	1/16/2021 9:10	ZE4103	M	C103710	0.00092	<0.005(	<0.00020	0.0546	30.2	0.0690	<0.000050	0.0084	0.0069		3.60	0.00247	5.13	<0.000020	166	0.439	122	<0.000010	<0.0050	<0.0050	0.00253	<0.0050	<0.0050	0.00016	
MWTF-PAG-POND	2/10/2021 7:30	ZH5701	M	C108783	0.00143	<0.005(	<0.00020	0.0641	24.9	0.0106	<0.000050	0.0075	0.0025		3.81	0.00198	5.32	<0.000020	126	0.389	81.7	<0.000010	<0.0050	<0.0050	0.00295	<0.0050	<0.0050	0.00035	
MWTF-PAG-POND	2/17/2021 8:30	ZI2103	M	C110147	0.00102	<0.005(	<0.00020	0.0517	22.7	0.0035	<0.000050	0.0074	0.0020		3.73	0.00178	6.15	<0.000020	127	0.312	80.4	0.000013	<0.0050	<0.0050	0.00251	<0.0050	<0.0050	0.00021	
MWTF-PAG-POND	2/25/2021 9:00	ZJ5659	M	C112156	0.00196	<0.005(	<0.00020	0.0556	21.3	0.124	<0.000050	0.0116	0.0213		5.58	0.00403	5.01	<0.000020	169	0.344	116	<0.000010	<0.0050	<0.0050	0.00228	<0.0050	0.0123	<0.00010	
MWTF-PAG-POND	3/3/2021 9:00	ZK6879	M	C114008	0.00133	<0.005(	<0.00020	0.0471	22.7	0.0160	<0.000050	0.0117	0.0052		5.38	0.00287	5.03	<0.000020	139	0.322	88.0	0.000017	<0.0050	<0.0050	0.00251	<0.0050	<0.0050	0.00011	
MWTF-PAG-POND	3/10/2021 9:05	ZL6784	M	C115704	0.00140	<0.005(	<0.00020	0.0542	23.4	0.0415	<0.000050	0.0146	0.0202		5.99	0.00493	5.25	<0.000020	148	0.366	118	0.000012	<0.0050	<0.0050	0.00269	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	3/17/2021 9:05	ZM5401	M	C117370	0.00137	<0.005(	<0.00020	0.0459	21.5	0.0564	<0.000050	0.0143	0.0097		4.40	0.00403	4.43	<0.000020	150	0.341	103	<0.000010	<0.0050	<0.0050	0.00265	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	3/24/2021 9:00	ZN4130	M	C119033	0.00134	<0.005(	<0.00020	0.0515	17.1	0.0085	<0.000050	0.0176	0.0058		4.87	0.00433	4.05	<0.000020	161	0.372	113	<0.000010	<0.0050	<0.0050	0.00259	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	3/31/2021 7:00	ZO2644	M	C120786	0.00188	<0.005(	<0.00020	0.0641	17.6	0.0136	<0.000050	0.0222	0.0099		5.95	0.00516	4.29	<0.000020	197	0.309	140	0.000012	<0.0050	<0.0050	0.00256	<0.0050	<0.0050	0.00010	
MWTF-PAG-POND	4/7/2021 9:05	ZO9398	M	C122214	0.00471	0.421	0.00037	0.0779	22.7	0.155	<0.000050	0.0173	0.0361		4.68	0.00514	4.49	<0.000020	175	0.328	152	0.000019	<0.0050	0.0102	0.00275	<0.0050	0.0291	0.00059	
MWTF-PAG-POND	4/14/2021 9:05	ZP7263	M	C123955	0.00185	0.01	<0.00020	0.0862	24.2	0.0828	<0.000050	0.0160	0.0188		3.65	0.00518	4.89	<0.000020	233	0.388	170	0.000013	<0.0050	<0.0050	0.00320	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	4/21/2021 7:00	ZQ7688	M	C125899	0.00084	<0.005(	<0.00020	0.0839	17.8	0.0123	<0.000050	0.0180	0.0037		4.08	0.00555	3.60	<0.000020	250	0.398	151	0.000012	<0.0050	<0.0050	0.00348	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	4/28/2021 9:15	ZR8166	M	C127754	0.00114	<0.005(	<0.00020	0.0751	15.3	0.0030	<0.000050	0.0134	0.0031		3.51	0.00311	4.28	0.000030	182	0.276	101	0.000011	<0.0050	<0.0050	0.00235	<0.0050	<0.0050	0.00010	
MWTF-PAG-POND	5/5/2021 9:05	ZS8920	M	C129714	0.00114	<0.005(	<0.00020	0.0770	18.6	0.0211	<0.000050	0.0184	0.0043		3.76	0.00832	4.13	<0.000020	251	0.314	160	0.000013	<0.0050	<0.0050	0.00342	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	5/12/2021 9:05	ZU0684	M	C131710	0.00157	<0.005(	<0.00020	0.0509	17.2	0.0034	<0.000050	0.0212	0.0032		3.82	0.0105	4.22	<0.000020	293	0.315	188	0.000012	<0.0050	<0.0050	0.00499	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	5/19/2021 8:45	ZV2958	M	C133889	0.00142	0.006	<0.00020	0.0673	16.6	0.0067	<0.000050	0.0247	0.0052		6.16	0.00765	5.49	<0.000020	254	0.413	170	0.000013	<0.0050	<0.0050	0.00374	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	5/26/2021 8:45	ZW0042	M	C135196	0.00158	0.112	<0.00020	0.0783	23.0	0.0741	<0.000050	0.0228	0.0165		5.28	0.0167	6.16	<0.000020	265	0.580	197	0.000017	<0.0050	<0.0050	0.00436	<0.0050	<0.0050	0.00018	
MWTF-PAG-POND	6/1/2021 8:05	ZX2962	M	C137634	0.00121	<0.005(	<0.00020	0.0964	12.2	<0.0010	<0.000050	0.0224	0.0031		5.71	0.00740	8.27	<0.000020	324	0.278	197	0.000011	<0.0050	<0.0050	0.00292	0.0054	<0.0050	<0.00010	
MWTF-PAG-POND	6/9/2021 9:15	ZY5024	M	C139832	0.00130	<0.005(	<0.00020	0.116	21.3	0.0051	<0.000050	0.0206	0.0058		7.36	0.00426	7.23	<0.000020	300	0.379	196	0.000014	<0.0050	<0.0050	0.00273	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	6/16/2021 9:10	ZZ8821	M	C142309	0.00139	0.014	<0.00020	0.107	9.01	0.0039	<0.000050	0.0168	0.0033		6.77	0.00311	12.6	<0.000020	205	0.152	106	<0.000010	<0.0050	<0.0050	0.00151	0.0083	<0.0050	<0.00010	
MWTF-PAG-POND	6/23/2021 9:00	AAK290	M	C144096																									
MWTF-PAG-POND	6/30/2021 9:10	AAY996	M	C146526	0.00178	0.05	<0.00020	0.146	10.7	0.0013	<0.000050	0.0214	0.0013		6.39	0.00436	7.57	<0.000020	257	0.249	115	<0.000010	<0.0050	<0.0050	0.00321	0.0075	<0.0050	0.00024	
MWTF-PAG-POND	7/7/2021 9:10	ABJ035	M	C148208	0.00221	0.052	<0.00020	0.118	15.5	0.0026	<0.000050	0.0306	0.0025		6.57	0.00481	4.81	<0.000020	375	0.337	226	<0.000010	<0.0050	0.0109	0.00539	0.0062	<0.0050	0.00019	
MWTF-PAG-POND	7/14/2021 9:00	ABT742	M	C150153	0.00142	<0.005(	<0.00020	0.0996	8.42	0.0013	<0.000050	0.0243	0.0015		6.25	0.00424	6.44	<0.000020	257	0.211	108	<0.000010	<0.0050	<0.0050	0.00254	0.0085	<0.0050	0.00012	
MWTF-PAG-POND	7/14/2021 9:25	ACG114	M	C152141	0.00144	<0.005(	<0.00020	0.105	21.2	0.174	<0.000050	0.0168	0.0136		5.12	0.00963	3.33	<0.000020	223	0.447	148	0.000018	<0.0050	<0.0050	0.00401	<0.0050	<0.0050	0.00014	
MWTF-PAG-POND	7/28/2021 9:10	ACU801	M	C154587	0.00080	0.009	<0.00020	0.116	15.6	0.0158	<0.000050	0.0140	0.0110		5.32	0.00488	3.36	<0.000020	186	0.421	125	0.000020	<0.0050	<0.0050	0.00226	<0.0050	<0.0050	0.00021	
MWTF-PAG-POND	8/4/2021 9:10	ADE503	M	C156226	0.00108	0.007	<0.00020	0.0688	6.70	<0.0010	<0.000050	0.0168	<0.0010		7.32	0.00608	8.92	<0.000020	209	0.154	97.5	<0.000010	<0.0050	<0.0050	0.00163	0.0060	<0.0050	<0.00010	
MWTF-PAG-POND	8/11/2021 9:15	ADP908	M	C158213	0.00185	0.006	<0.00020	0.0756	15.6	<0.0010	<0.000050	0.0137	0.0019		5.52	0.00260	3.39	<0.000020	146	0.225	83.9	0.000012	<0.0050	<0.0050	0.00184	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	8/18/2021 9:00	ADZ879	M	C160258	0.00166	<0.005(	<0.00020	0.0796	15.7	0.0224	<0.000050	0.0098	0.0071		4.44	0.00237	3.41	<0.000020	145	0.300	85.0	0.000018	<0.0050	<0.0050	0.00196	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	8/25/2021 9:10	AEN303	M	C162336	0.00266	0.008	<0.00020	0.171	47.9	1.16	<0.000050	0.0078	0.236		4.69	0.00486	4.22	<0.000020	200	0.620	255	0.000032	<0.0050	<0.0050	0.00469	<0.0050	0.116	<0.00010	
MWTF-PAG-POND	9/1/2021 9:10	AFA893	M	C164810	0.00093	<0.005(	<0.00020	0.130	26.3	0.102	<0.000050	0.0074	0.0146		4.69	0.00261	4.01	<0.000020	206	0.350	113	0.000024	<0.0050	<0.0050	0.00223	<0.0050	0.0064	<0.00010	
MWTF-PAG-POND	9/8/2021 9:10	AFL367	M	C166567	0.00107	<0.005(	<0.00020	0.0821	22.0	0.0617	<0.000050	0.0093	0.0049		4.05	0.00200	3.59	<0.000020	171	0.335	98.1	<0.000010	<0.0050	<0.0050	0.00209	<0.0050	0.0171	<0.00010	
MWTF-PAG-POND	9/15/2021 9:10	AGA403	M	C168915	0.00068	<0.005(	<0.00020	0.0903	21.7	0.0057	<0.000050	0.0074	0.0023		4.01	0.00297	3.19	<0.000020	102	0.204	106	<0.000010	<0.0050	<0.0050	0.00176	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	9/22/2021 9:10	AGO150	M	C171030	0.00126	<0.005(	<0.00020	0.0588	14.4	0.0439	<0.000050	0.0043	0.0040		2.23	0.00132	2.82	<0.000020	90.4	0.240	50.2	<0.000010	<0.0050	<0.0050	0.00138	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	9/29/2021 9:05	AHB517	M	C173306	0.00145	0.011	<0.00020	0.0680	16.8	0.189	<0.000050	0.0036	0.0278		2.32	0.00093	2.79	<0.000020	96.6	0.253	74.9	0.000014	<0.0050	<0.0050	0.00140	<0.0050	0.0228	<0.00010	
MWTF-PAG-POND	10/13/2021 9:10	AIB250	M	C177602	0.00145	#####	<0.00020	0.0491	8.66	0.0029	<0.000050	0.0063	0.0030		3.21	0.00092	3.86	<0.000020	82.5	0.141	34.5	<0.000010	<0.0050	<0.0050	0.00098	<0.0050	0.0108	<0.00010	
MWTF-PAG-POND	10/20/2021 9:05	AIR351	M	C180292	0.00121	<0.005(	<0.00020	0.0658	11.9	0.0022	<0.000050	0.0059	0.0024		2.77	0.00090	3.78	<0.000020	111	0.165	38.6	<0.000010	<0.0050	<0.0050	0.00121	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	10/27/2021 9:05	AJF092	M	C182468	0.00095	<0.005(	<0.00020	0.0707	19.8	0.0236	<0.000050	0.0050	0.0035		2.79	0.00121	3.95	<0.000020	95.6	0.263	49.8	<0.000010	<0.0050	<0.0050	0.00215	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	11/3/2021 8:50	AJU897	M	C184917	0.00118	<0.005(	<0.00020	0.0597	17.8	0.0153	<0.000050	0.0052	0.0026		2.89	0.00078	3.54	<0.000020	93.2	0.180	38.0	<0.000010	<0.0050	<0.0050	0.00184	<0.0050	<0.0050	0.00011	

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
MWTF-PAG-POND	11/10/2021 9:00	AKL845	M	C187287	0.00152	<0.005(	<0.00020	0.0644	11.3	0.0127	<0.000050	0.0084	0.0046		3.42	0.00101	2.60	<0.000020	92.5	0.216	37.3	<0.000010	<0.0050	<0.0050	0.00169	<0.0050	0.0053	0.00011	
MWTF-PAG-POND	11/17/2021 8:50	AKV482	M	C188716	0.00180	<0.005(	<0.00020	0.0597	13.0	0.0155	<0.000050	0.0073	0.0030		2.84	0.00094	3.68	<0.000020	97.9	0.211	43.3	<0.000010	<0.0050	<0.0050	0.00160	<0.0050	<0.0050	0.00010	
MWTF-PAG-POND	11/24/2021 8:50	ALZ944	M	C194563	0.00213	0.008	<0.00020	0.0943	11.0	0.0184	<0.000050	0.0070	0.0031		2.40	0.00094	3.88	<0.000020	107	0.204	45.1	0.000011	<0.0050	<0.0050	0.00175	<0.0050	0.0146	<0.00010	
MWTF-PAG-POND	12/1/2021 9:00	ALV046	M	C193508	0.00148	0.01	<0.00020	0.0808	12.4	0.0956	<0.000050	0.0072	0.0112		3.21	0.00175	3.04	<0.000020	82.3	0.277	51.5	0.000010	<0.0050	<0.0050	0.00128	<0.0050	<0.0050	<0.00010	
MWTF-PAG-POND	12/8/2021 9:15	ALF842	M	C190633	0.00112	0.006	<0.00020	0.0750	18.7	0.0203	<0.000050	0.0071	0.0032		2.66	0.00280	3.60	<0.000020	94.8	0.247	36.3	<0.000010	<0.0050	<0.0050	0.00266	<0.0050	0.0121	<0.00010	
MWTF-PAG-POND	12/15/2021 9:00	ALX789	M	C194026	0.00305	0.006	<0.00020	0.0628	20.6	0.0114	<0.000050	0.0075	0.0034		3.91	0.00289	3.90	<0.000020	64.6	0.311	28.8	<0.000010	<0.0050	<0.0050	0.00323	<0.0050	0.0073	0.00012	
MWTF-PAG-POND	12/22/2021 8:50	AMM562	M	C196867	0.00163	<0.005(	<0.00020	0.0928	33.3	0.0458	<0.000050	0.0034	0.0049		3.42	0.00243	4.33	<0.000020	110	0.374	50.0	0.000025	<0.0050	<0.0050	0.00331	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	1/6/2021 7:10	ZD0208	M	C100919	0.00069	<0.005(	<0.00020	0.0504	26.5	0.0028	<0.000050	0.0077	0.0027		3.13	0.00261	4.28	<0.000020	167	0.195	116	<0.000010	<0.0050	<0.0050	0.00244	0.0068	<0.0050	<0.00010	
MWTF-CELL-3	1/13/2021 9:15	ZD7922	M	C102466	0.00064	<0.005(	<0.00020	0.0494	25.1	0.0013	<0.000050	0.0087	0.0022		3.29	0.00247	4.65	<0.000020	163	0.211	112	<0.000010	<0.0050	<0.0050	0.00254	0.0081	<0.0050	<0.00010	
MWTF-CELL-3	1/16/2021 9:15	ZE4104	M	C103710	0.00068	<0.005(	<0.00020	0.0607	29.6	0.0096	<0.000050	0.0092	0.0056		3.66	0.00267	4.80	<0.000020	173	0.262	132	<0.000010	<0.0050	<0.0050	0.00249	0.0064	<0.0050	<0.00010	
MWTF-CELL-3	2/10/2021 7:20	ZH5702	M	C108783	0.00115	<0.005(	<0.00020	0.0648	24.9	0.0019	<0.000050	0.0071	0.0019		3.71	0.00200	4.85	<0.000020	131	0.216	83.4	<0.000010	<0.0050	<0.0050	0.00280	0.0080	<0.0050	<0.00010	
MWTF-CELL-3	2/17/2021 8:20	ZI2104	M	C110147	0.00132	<0.005(	<0.00020	0.0547	25.0	0.0011	<0.000050	0.0071	0.0015		3.72	0.00181	5.58	<0.000020	140	0.175	84.3	<0.000010	<0.0050	<0.0050	0.00270	0.0086	<0.0050	<0.00010	
MWTF-CELL-3	2/25/2021 9:10	ZJ5660	M	C112156	0.00132	<0.005(	<0.00020	0.0600	22.8	0.0103	<0.000050	0.0105	0.0063		4.80	0.00304	5.76	<0.000020	158	0.250	105	<0.000010	<0.0050	<0.0050	0.00263	0.0064	<0.0050	<0.00010	
MWTF-CELL-3	3/3/2021 9:10	ZK6880	M	C114008	0.00103	<0.005(	<0.00020	0.0519	21.7	0.0022	<0.000050	0.0115	0.0058		5.60	0.00319	4.92	<0.000020	156	0.206	103	0.000012	<0.0050	<0.0050	0.00220	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	3/10/2021 9:15	ZL6785	M	C115704	0.00119	<0.005(	<0.00020	0.0535	23.3	0.0063	<0.000050	0.0127	0.0050		5.67	0.00425	5.32	<0.000020	168	0.247	123	<0.000010	<0.0050	<0.0050	0.00259	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	3/17/2021 9:15	ZM5402	M	C117370	0.00112	<0.005(	<0.00020	0.0466	21.4	0.0021	<0.000050	0.0141	0.0028		5.11	0.00381	5.45	<0.000020	159	0.213	111	<0.000010	<0.0050	<0.0050	0.00260	0.0057	<0.0050	<0.00010	
MWTF-CELL-3	3/24/2021 9:10	ZN4131	M	C119033	0.00134	<0.005(	<0.00020	0.0481	16.7	0.0030	<0.000050	0.0158	0.0075		4.92	0.00415	3.73	<0.000020	140	0.232	105	<0.000010	<0.0050	<0.0050	0.00226	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	3/31/2021 7:10	ZO2645	M	C120786	0.00145	<0.005(	<0.00020	0.0538	16.6	0.0018	<0.000050	0.0206	0.0043		5.79	0.00453	4.30	<0.000020	184	0.229	124	<0.000010	<0.0050	<0.0050	0.00249	0.0062	<0.0050	<0.00010	
MWTF-CELL-3	4/7/2021 9:15	ZO9399	M	C122214	0.00222	0.036	<0.00020	0.0601	18.1	0.0071	<0.000050	0.0198	0.0087		5.43	0.00481	4.40	<0.000020	161	0.266	135	0.000012	<0.0050	<0.0050	0.00207	0.0057	<0.0050	<0.00010	
MWTF-CELL-3	4/14/2021 9:15	ZP7264	M	C123955	0.00151	0.007	<0.00020	0.0822	22.9	0.0233	<0.000050	0.0162	0.0095		4.07	0.00532	6.11	<0.000020	195	0.324	152	<0.000010	<0.0050	<0.0050	0.00300	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	4/21/2021 7:10	ZQ7689	M	C125899	0.00118	<0.005(	<0.00020	0.0780	23.5	0.0063	<0.000050	0.0152	0.0049		3.74	0.00523	3.93	<0.000020	230	0.275	168	0.000011	<0.0050	<0.0050	0.00295	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	4/28/2021 9:30	ZR8167	M	C127754	0.00108	<0.005(	<0.00020	0.0766	17.1	0.0014	<0.000050	0.0169	0.0025		3.75	0.00460	3.69	<0.000020	223	0.252	136	0.000011	<0.0050	<0.0050	0.00316	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	5/5/2021 9:15	ZS8921	M	C129714	0.00094	<0.005(	<0.00020	0.0760	16.5	0.0016	<0.000050	0.0156	0.0018		4.01	0.00454	5.35	<0.000020	227	0.210	136	<0.000010	<0.0050	<0.0050	0.00276	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	5/12/2021 9:15	ZU0685	M	C131710	0.00125	<0.005(	<0.00020	0.0503	15.8	0.0010	<0.000050	0.0168	0.0016		3.82	0.00814	5.33	<0.000020	223	0.199	137	<0.000010	<0.0050	<0.0050	0.00342	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	5/19/2021 8:55	ZV2959	M	C133889	0.00108	<0.005(	<0.00020	0.0568	12.1	0.0023	<0.000050	0.0169	0.0012		4.14	0.00634	4.97	<0.000020	216	0.205	127	<0.000010	<0.0050	<0.0050	0.00311	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	5/26/2021 8:50	ZW0043	M	C135196	0.00114	<0.005(	<0.00020	0.0663	17.8	0.0061	<0.000050	0.0227	0.0028		5.10	0.00771	5.78	<0.000020	290	0.336	192	0.000013	<0.0050	<0.0050	0.00357	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	6/1/2021 8:10	ZX2963	M	C137634	0.00103	<0.005(	<0.00020	0.0810	17.9	0.0011	<0.000050	0.0235	0.0023		5.57	0.0108	6.87	<0.000020	293	0.343	205	0.000010	<0.0050	<0.0050	0.00398	0.0056	<0.0050	<0.00010	
MWTF-CELL-3	6/9/2021 9:05	ZY5025	M	C139832	0.00118	<0.005(	<0.00020	0.0772	14.4	0.0011	<0.000050	0.0263	0.0015		6.62	0.00915	6.25	<0.000020	333	0.329	214	0.000011	<0.0050	<0.0050	0.00331	0.0067	<0.0050	<0.00010	
MWTF-CELL-3	6/16/2021 9:15	ZZ8822	M	C142309	0.00133	0.009	<0.00020	0.110	13.5	0.0019	<0.000050	0.0204	0.0012		7.38	0.00665	6.61	<0.000020	332	0.226	211	0.000013	<0.0050	<0.0050	0.00227	0.0067	<0.0050	<0.00010	
MWTF-CELL-3	6/23/2021 9:10	AAK291	M	C144096	0.00119	0.007	<0.00020	0.115	15.7	0.0037	<0.000050	0.0180	0.0014		7.36	0.00771	5.75	<0.000020	291	0.238	164	0.000010	<0.0050	<0.0050	0.00146	0.0053	<0.0050	0.00014	
MWTF-CELL-3	6/30/2021 9:15	AAY997	M	C146526	0.00105	0.007	<0.00020	0.134	13.0	0.0017	<0.000050	0.0240	0.0010		8.48	0.00789	5.76	<0.000020	262	0.285	178	<0.000010	<0.0050	<0.0050	0.00163	0.0073	<0.0050	<0.00010	
MWTF-CELL-3	7/7/2021 9:15	ABJ036	M	C148208	0.00126	0.025	<0.00020	0.142	10.6	0.0031	<0.000050	0.0271	<0.0010		8.22	0.00605	6.70	<0.000020	271	0.189	159	<0.000010	<0.0050	<0.0050	0.00225	0.0091	<0.0050	<0.00010	
MWTF-CELL-3	7/14/2021 9:00	ACG115	M	C152141	0.00112	0.007	<0.00020	0.110	9.44	0.0034	<0.000050	0.0223	0.0035		6.65	0.00445	5.61	<0.000020	255	0.151	99.8	<0.000010	<0.0050	<0.0050	0.00170	0.0080	<0.0050	<0.00010	
MWTF-CELL-3	7/14/2021 9:30	ABT743	M	C150153	0.00161	0.013	<0.00020	0.109	10.2	0.0034	<0.000050	0.0259	<0.0010		7.87	0.00531	5.36	<0.000020	293	0.135	154	<0.000010	<0.0050	<0.0050	0.00203	0.0098	<0.0050	0.00012	
MWTF-CELL-3	7/28/2021 9:15	ACU802	M	C154587	0.00125	0.08	<0.00020	0.0955	14.0	0.0038	<0.000050	0.0151	0.0021		4.47	0.00434	3.43	<0.000020	184	0.238	93.4	0.000013	<0.0050	0.0082	0.00211	<0.0050	<0.0050	0.00026	
MWTF-CELL-3	8/4/2021 9:15	ADE504	M	C156226	0.00087	<0.005(	<0.00020	0.0970	18.7	0.0057	<0.000050	0.0144	0.0037		4.64	0.00644	4.28	<0.000020	193	0.321	148	0.000015	<0.0050	<0.0050	0.00295	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	8/11/2021 9:20	ADP909	M	C158213	0.00094	<0.005(	<0.00020	0.0967	21.9	0.0089	<0.000050	0.0132	0.0049		5.55	0.00568	3.56	<0.000020	165	0.311	125	0.000015	<0.0050	<0.0050	0.00163	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	8/18/2021 9:10	ADZ880	M	C160258	0.00109	<0.005(	<0.00020	0.0903	16.4	0.0112	<0.000050	0.0144	0.0018		6.35	0.00473	2.95	<0.000020	175	0.230	108	<0.000010	<0.0050	<0.0050	0.00178	<0.0050	0.0106	<0.00010	
MWTF-CELL-3	8/25/2021 9:15	AEN304	M	C162336	0.00098	<0.005(	<0.00020	0.145	31.8	0.0235	<0.000050	0.0086	0.0046		4.90	0.00381	2.89	<0.000020	163	0.492	211	0.000027	<0.0050	<0.0050	0.00097	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	9/1/2021 9:15	AFA894	M	C164810	0.00060	<0.005(	<0.00020	0.154	28.1	0.0153	<0.000050	0.0078	0.0043		5.75	0.00418	2.82	<0.000020	182	0.512	186	0.000033	<0.0050	<0.0050	0.00096	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	9/8/2021 9:10	AFL368	M	C166567	0.00072	<0.005(	<0.00020	0.125	23.0	0.0124	<0.000050	0.0069	0.0021		5.72	0.00269	3.18	<0.000020	186	0.276	128	0.000020	<0.0050	<0.0050	0.00138	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	9/15/2021 9:00	AGA404	M	C168915	0.00097	<0.005(	<0.00020	0.100	23.0	0.0057	<0.000050	0.0077	0.0023		4.11	0.00304	3.25	<0.000020	168	0.209	109	0.000011	<0.0050	<0.0050	0.00168	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	9/22/2021 9:15	AGO151	M	C171030	0.00074	<0.005(	<0.00020	0.0508	14.8	0.0092	<0.000050	0.0039	0.0045		2.08	0.00164	2.99	<0.000020	81.9	0.176	51.4	<0.000010	<0.0050	<0.0050	0.00137	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	9/29/2021 9:15	AHB518	M	C173306	0.00202	0.007	<0.00020	0.0674	13.8	0.0107	<0.000050	0.0041	0.0040		2.45	0.00080	2.91	<0.000020	96.7	0.144	55.9	<0.000010	<0.0050	<0.0050	0.00143	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	10/6/2021 8:25	AHO703	M	C175648	0.00091	<0.005(	<0.00020	0.0642	12.7	0.0061	<0.000050	0.0085	0.0019		3.78	0.00109	2.98	<0.000020	116	0.133	56.2	<0.000010	<0.0050	<0.0050	0.00121	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	10/13/2021 9:00	AIB251	M	C177602	0.00083	<0.005(	<0.00020	0.0500	8.10	0.0015	<0.000050	0.0067	0.0011		3.40	0.00101	3.10	<0.000020	89.3	0.108	40.4	<0.000010	<0.0050	<0.0050	0.00066	<0.0050	0.0072	<0.00010	
MWTF-CELL-3	10/20/2021 9:15	AIR352	M	C180292	0.00082	<0.005(	<0.00020	0.0674	8.12	0.0012	<0.000050	0.0052	<0.0010		2.87	0.00081	3.60	<0.000020	110	0.1	35.0	<0.000010	<0.0050	<0.0050	0.00062	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	10/27/2021 9:15	AJF093	M	C182468	0.00082	<0.005(	<0.00020	0.0638	13.3	0.0012	<0.000050	0.0066	0.0015		3.29	0.00094	5.99	<0.000020	96.7	0.126	48.6	<0.000010	<0.0050	<0.0050	0.00135	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	11/3/2021 8:55	AJU898	M	C184917	0.00079	<0.005(	<0.00020	0.0713	15.3	0.0014	<0.000050	0.0068	0.0016		3.39	0.00126	3.45	<0.000020	111	0.112	57.5	<0.000010	<0.0050	<0.0050	0.00130	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	11/10/2021 9:00	AKL846	M	C187287	0.00128	#####	<0.00020	0.0634	11.6	0.0036	<0.000050	0.0070	0.0032		3.73	0.00107	3.26	<0.000020	101	0.111	49.1	<0.000010	<0.0050	<0.0050	0.00154	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	11/17/2021 8:55	AKV483	M	C188716	0.00142	<0.005(	<0.00020	0.0645	13.5	0.0055	<0.000050	0.0088	0.0030		3.52	0.00118	3.50	<0.000020	109	0.141	54.5	<0.000010	<0.0050	<0.0050	0.00174	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	11/24/2021 8:55	ALZ945	M	C194563	0.00140	<0.005(	<0.00020	0.0703	14.6	0.0038	<0.000050	0.0073	0.0022		2.95	0.00105	3.86	<0.000020	128	0.122	46.0	<0.000010	<0.0050	<0.0050	0.00166	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	12/1/2021 9:20	ALV047	M	C193508	0.00118	<0.005(	<0.00020	0.0755	9.64	0.0073	<0.000050	0.0064	0.0047		2.67	0.00119	2.78	<0.000020	76.5	0.138	31.3	0.000010	<0.0050	<0.0050	0.00163	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	12/8/2021 9:10	ALF841	M	C190633	0.00127	0.007	<0.00020	0.0857	16.4	0.0220	<0.000050	0.0071	0.0067		3.11	0.00183	3.97	<0.000020	102	0.161	47.5	<0.000010	<0.0050	<0.0050	0.00167	<0.0050	0.0063	<0.00010	
MWTF-CELL-3	12/15/2021 9:10	ALX791	M	C194026	0.00129	0.009	<0.00020	0.0884	16.5	0.0197	<0.000050	0.0090	0.0057		3.49	0.00213	3.34	<0.000020	94.3	0.185	42.9	<0.000010	<0.0050	<0.0050	0.00207	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	12/22/2021 8:55	AMM563	M	C196867	0.00092	0.005	<0.00020	0.0564	22.6	0.0014	<0.000050	0.0069	0.0012		4.82	0.00265	5.64	<0.000020	76.5	0.121	44.9	<0.000010	<0.0050	<0.0050	0.00252	<0.0050	<0.0050	<0.00010	
MWTF-CELL-3	12/29/2021 8:30	AMO192	M	C197186	0.00097	<0.005(	<0.00020	0.0526	21.8	0.0013	<0.000050	0.0052	0.0010		3.60	0.00185	4.35	<0.000020	63.5	0.116	28.3	<0.000010	<0.0050	<0.0050	0.00226	<0.0050	0.0068	<0.00010	
MWTF-CELL-1-PIPE	1/6/2021 7:05	ZD0209	M	C100919																								
MWTF-CELL-1-PIPE	1/13/2021 9:10	ZD7923	M	C102466																								
MWTF-CELL-1-PIPE	1/16/2021 9:05	ZE4105	M	C103710																								
MWTF-CELL-1-PIPE	2/10/2021 7:35	ZH5703	M	C108783																								
MWTF-CELL-1-PIPE	2/17/2021 8:40	ZI2105	M	C110147																								
MWTF-CELL-1-PIPE	2/25/2021 9:05	ZJ5661	M	C112156																								
MWTF-CELL-1-PIPE	3/3/2021 9:05	ZK6881	M	C114008																								
MWTF-CELL-1-PIPE	3/10/2021 9:10	ZL6786	M	C115704																								
MWTF-CELL-1-PIPE	3/17/2021 9:10	ZM5403	M	C117370																								
MWTF-CELL-1-PIPE	3/24/2021 9:05	ZN4132	M	C119033																								
MWTF-CELL-1-PIPE	3/31/2021 7:05	ZO2646	M	C120786																								
MWTF-CELL-1-PIPE	4/7/2021 9:10	ZO9400	M	C122214																								

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu mg/L	D-Fe mg/L	D-Pb mg/L	D-Li mg/L	D-Mg mg/L	D-Mn mg/L	D-Hg mg/L	D-Mo mg/L	D-Ni mg/L	D-P mg/L	D-K mg/L	D-Se mg/L	D-Si mg/L	D-Ag mg/L	D-Na mg/L	D-Sr mg/L	D-S mg/L	D-Tl mg/L	D-Sn mg/L	D-Ti mg/L	D-U mg/L	D-V mg/L	D-Zn mg/L	D-Zr mg/L	Turbidity-lab NTU
MWTF-CELL-1-PIPE	4/14/2021 9:10	ZP7265	M	C123955																									
MWTF-CELL-1-PIPE	4/21/2021 7:05	ZQ7690	M	C125899																									
MWTF-CELL-1-PIPE	4/28/2021 9:20	ZR8168	M	C127754																									
MWTF-CELL-1-PIPE	5/5/2021 9:10	ZS8922	M	C129714																									
MWTF-CELL-1-PIPE	5/12/2021 9:10	ZU0686	M	C131710																									
MWTF-CELL-1-PIPE	5/19/2021 8:50	ZV2960	M	C133889																									
MWTF-CELL-1-PIPE	5/26/2021 8:55	ZW0044	M	C135196																									
MWTF-CELL-1-PIPE	6/1/2021 8:15	ZX2964	M	C137634																									
MWTF-CELL-1-PIPE	6/9/2021 9:10	ZY5026	M	C139832																									
MWTF-CELL-1-PIPE	6/16/2021 9:05	ZZ8823	M	C142309																									
MWTF-CELL-1-PIPE	6/23/2021 9:15	AAK292	M	C144096																									
MWTF-CELL-1-PIPE	6/30/2021 9:05	AAY998	M	C146526																									
MWTF-CELL-1-PIPE	7/7/2021 9:05	ABJ037	M	C148208																									
MWTF-CELL-1-PIPE	7/14/2021 9:15	ABT744	M	C150153																									
MWTF-CELL-1-PIPE	7/14/2021 9:30	ACG116	M	C152141																									
MWTF-CELL-1-PIPE	7/28/2021 9:05	ACU803	M	C154587																									
MWTF-CELL-1-PIPE	8/4/2021 9:05	ADE505	M	C156226																									
MWTF-CELL-1-PIPE	8/11/2021 9:20	ADP910	M	C158213																									
MWTF-CELL-1-PIPE	8/18/2021 9:05	ADZ881	M	C160258																									
MWTF-CELL-1-PIPE	8/25/2021 9:05	AEN305	M	C162336																									
MWTF-CELL-1-PIPE	9/1/2021 9:05	AFA895	M	C164810																									
MWTF-CELL-1-PIPE	9/8/2021 9:10	AFL369	M	C166567																									
MWTF-CELL-1-PIPE	9/15/2021 9:15	AGA405	M	C168915																									
MWTF-CELL-1-PIPE	9/22/2021 9:05	AGO152	M	C171030																									
MWTF-CELL-1-PIPE	9/29/2021 9:10	AHB519	M	C173306																									
MWTF-CELL-1-PIPE	10/13/2021 9:00	AIB252	M	C177602																									
MWTF-CELL-1-PIPE	10/20/2021 9:10	AIR353	M	C180292																									
MWTF-CELL-1-PIPE	10/27/2021 9:10	AJF094	M	C182468																									
MWTF-CELL-1-PIPE	11/3/2021 8:45	AJU899	M	C184917																									
MWTF-CELL-1-PIPE	11/10/2021 9:00	AKL847	M	C187287																									
MWTF-CELL-1-PIPE	11/17/2021 8:45	AKV484	M	C188716																									
MWTF-CELL-1-PIPE	11/24/2021 8:45	ALZ947	M	C194563																									
MWTF-CELL-1-PIPE	12/1/2021 9:30	ALV048	M	C193508																									
MWTF-CELL-1-PIPE	12/8/2021 10:00	ALF843	M	C190633																									
MWTF-CELL-1-PIPE	12/15/2021 9:05	ALX790	M	C194026																									
MWTF-CELL-1-PIPE	12/22/2021 8:45	AMM561	M	C196867																									
PR-IDZ	1/10/2021 15:45	ZD6082	M	C102115																									2.3
PR-IDZ	1/14/2021 9:10	ZD9467	M	C102853																									0.94
PR-IDZ	1/16/2021 16:20	ZE3034	M	C103544																									1.2
PR-IDZ	1/22/2021 1:20	ZE9297	M	C104704																									0.92
PR-IDZ	1/28/2021 13:55	ZF8631	M	C106327																									2.5
PR-IDZ	2/6/2021 12:00	ZH3140	M	C108285																									3.4
PR-IDZ	2/14/2021 10:39	ZI0122	M	C109675																									2.1
PR-IDZ	2/18/2021 14:40	ZI6457	M	C110759																									1.1
PR-IDZ	2/26/2021 13:30	ZJ8526	M	C112618																									1.2
PR-IDZ	3/6/2021 11:30	ZL3538	M	C115040	0.00058	<0.01	<0.0002	<0.002	6.29	<0.001	<0.0000019	<0.001	<0.001		0.431	0.00033	2.15	<0.00002	1.34	0.112	5.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	1.3
PR-IDZ	3/13/2021 14:45	ZM2424	M	C116756																									1.0
PR-IDZ	3/20/2021 16:45	ZN1537	M	C118497																									2.0
PR-IDZ	3/25/2021 16:10	ZN6327	M	C119610																									1.3
PR-IDZ	4/3/2021 14:25	ZO6453	M	C121575	0.00053	<0.01	<0.0002	<0.002	6.24	0.0012	<0.0000019	<0.001	<0.001		0.492	0.00029	2.26	<0.00002	1.50	0.116	5.4	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	1.8
PR-IDZ	4/5/2021 14:40	ZO7520	M	C121801	0.00057	<0.01	<0.0002	<0.002	6.36	0.0012	<0.0000019	<0.001	<0.001		0.496	0.00027	2.17	<0.00002	1.36	0.11	5.3	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	3.8
PR-IDZ	4/6/2021 15:30	ZO9479	M	C122250	0.00056	<0.01	<0.0002	<0.002	6.63	0.0012	<0.0000019	<0.001	<0.001		0.460	0.00027	2.29	<0.00002	1.38	0.112	5.6	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	2.7
PR-IDZ	4/7/2021 15:45	ZP0885	M	C122580	0.00057	<0.01	<0.0002	<0.002	6.42	0.0014	<0.0000019	<0.001	<0.001		0.458	0.00026	2.21	<0.00002	1.35	0.117	5.4	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	2.9
PR-IDZ	4/16/2021 12:10	ZQ1484	M	C124799																									9.8
PR-IDZ	4/22/2021 11:15	ZR1316	M	C126529																									19
PR-IDZ	5/3/2021 11:15	ZS6024	M	C129096																									50
PR-IDZ	5/8/2021 15:40	ZT6589	M	C130995																									81
PR-IDZ	5/14/2021 11:05	ZU4956	M	C132327																									37
PR-IDZ	5/21/2021 11:30	ZV5662	M	C134400																									45
PR-IDZ	5/27/2021 12:20	ZW4851	M	C136103																									140
PR-IDZ	6/3/2021 12:10	ZX7153	M	C138404																									160
PR-IDZ	6/9/2021 14:45	ZY6857	M	C140198																									120
PR-IDZ	6/17/2021 13:50	AAC470	M	C142866																									39
PR-IDZ	6/24/2021 15:50	AAQ181	M	C144970																									17
PR-IDZ	6/30/2021 11:55	AAZ004	M	C146528	0.00083	0.079	<0.0002	<0.002	7.20	0.0058	<0.0000019	<0.001	<0.001		0.470	0.0003	2.28	<0.00002	1.28	0.12	6.4	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	13
PR-IDZ	7/7/2021 12:30	ABK533	M	C148516	0.0005	0.046	<0.0002	<0.002	7.15	<0.001	<0.0000019	0.001	<0.001		0.500	0.00039	2.29	<0.00002	1.46	0.144	5.9	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	0.00012	6.3
PR-IDZ	7/8/2021 12:30	ABM763	M	C148925																									4.7
PR-IDZ	7/14/2021 15:05	ABX616	M	C150851	0.00054	0.026	<0.0002	<0.002	6.69	0.0011	<0.0000019	<0.001	<0.001		0.487	0.00034	2.09	<0.00002	1.34	0.138	6.0	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	4.1
PR-IDZ	7/15/2021 16:55	ABY393	M	C150960																									3.0

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
PR-IDZ	7/21/2021 16:40	ACH924	M	C152478	0.00061	0.097	<0.0002	<0.002	7.18	0.0029	<0.0000019	<0.001	<0.001		0.590	0.00032	2.29	<0.00002	1.67	0.149	5.1	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	0.00036	13
PR-IDZ	7/27/2021 12:00	ACT045	M	C154246	0.00058	0.089	<0.0002	<0.002	5.83	0.0025	0.0000024	<0.001	<0.001		0.420	0.0003	1.79	<0.00002	1.65	0.095	<3.0	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	3.2
PR-IDZ	7/31/2021 13:40	ADA376	M	C155508																									1.2
PR-IDZ	8/11/2021 14:00	ADR992	M	C158615	0.00058	<0.01	<0.0002	<0.002	6.37	<0.001	<0.0000019	0.0012	<0.001		0.493	0.00033	1.69	<0.00002	1.65	0.111	<3.0	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	1.8
PR-IDZ	8/18/2021 17:00	AED521	M	C160793	0.00067	<0.01	<0.0002	<0.002	7.09	<0.001	<0.0000019	<0.001	<0.001		0.510	0.00055	1.79	<0.00002	1.54	0.116	8.1	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	<0.0001	2.0
PR-IDZ	8/25/2021 16:00	AEP247	M	C162703	0.00086	0.038	<0.0002	0.0023	7.50	0.0025	<0.0000019	0.0012	0.0012		0.527	0.00047	1.84	<0.00002	1.91	0.12	6.4	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	23
PR-IDZ	9/1/2021 14:40	AFC998	M	C165103	<0.0005	<0.01	<0.0002	<0.002	6.01	<0.001	<0.0000019	0.001	<0.001		0.377	0.00038	1.71	<0.00002	1.51	0.111	<3.0	<0.00001	<0.005	<0.005	0.00039	<0.005	<0.005	<0.0001	3.4
PR-IDZ	9/8/2021 12:20	AFO062	M	C167059	0.00056	<0.01	<0.0002	<0.002	6.61	<0.001	<0.0000019	<0.001	<0.001		0.435	0.00035	1.77	<0.00002	1.33	0.106	8.0	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	1.9
PR-IDZ	9/15/2021 11:45	AGD170	M	C169361	0.0006	<0.01	<0.0002	<0.002	6.60	<0.001	<0.0000019	<0.001	<0.001		0.458	0.0003	1.74	<0.00002	1.53	0.105	5.1	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	1.9
PR-IDZ	9/19/2021 14:55	AGJ669	M	C170331	0.00055	<0.01	<0.0002	<0.002	6.61	<0.001	<0.0000019	<0.001	<0.001		0.450	0.00032	1.81	<0.00002	1.39	0.117	5.8	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	<0.0001	2.7
PR-IDZ	9/22/2021 12:15	AGR069	M	C171568	0.00055	<0.01	<0.0002	<0.002	6.61	<0.001	<0.0000019	<0.001	<0.001		0.448	0.00024	1.8	<0.00002	1.33	0.116	5.9	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	2.5
PR-IDZ	9/29/2021 13:50	AHF735	M	C174181	0.00074	0.012	<0.0002	<0.002	8.02	<0.001	<0.0000019	0.0011	0.0011		0.482	0.00035	1.97	<0.00002	1.74	0.123	3.2	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	3.5
PR-IDZ	10/6/2021 12:50	AHR788	M	C176098	0.0006	<0.01	<0.0002	<0.002	5.56	<0.001	<0.0000019	0.0017	<0.001		0.708	0.0003	1.57	<0.00002	1.50	0.102	<3.0	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	2.9
PR-IDZ	10/13/2021 12:25	AIE378	M	C178189	0.00055	<0.01	<0.0002	<0.002	5.36	<0.001	<0.0000019	<0.001	<0.001		0.442	0.00037	2.08	<0.00002	1.14	0.101	<3.0	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	<0.0001	4.4
PR-IDZ	10/20/2021 14:00	AIT537	M	C180689	0.00053	<0.01	<0.0002	<0.002	5.98	<0.001	<0.0000019	<0.001	<0.001		0.439	0.00025	2	<0.00002	1.36	0.106	4.2	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	2.3
PR-IDZ	10/27/2021 14:05	AJH728	M	C182990																									3.0
PR-IDZ	11/6/2021 12:25	AKD995	M	C186250	0.0006	<0.01	<0.0002	<0.002	5.83	<0.001	<0.0000019	<0.001	<0.001		0.406	0.0003	1.56	<0.00002	1.30	0.105	<3.0	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	4.7
PR-IDZ	11/10/2021 16:00	AKN276	M	C187468	0.00059	<0.01	<0.0002	<0.002	5.26	<0.001	<0.0000019	<0.001	<0.001		0.389	0.00025	1.46	<0.00002	1.26	0.1	<3.0	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	4.1
PR-IDZ	11/17/2021 12:50	AKY312	M	C189131																									3.9
PR-IDZ	11/25/2021	FJ2101334-004	M	FJ2101334	0.00063	<0.010	<0.000050	0.0013	6.28	0.00068	<0.0000050	0.000778	0.0006	<0.050	0.458	0.000263	2.11	<0.000010	1.26	0.111	5.16	<0.000010	<0.00010	<0.00030	0.000458	<0.00050	<0.0010	<0.00020	1.71
PR-IDZ	12/2/2021 13:30	FJ2101375-004	M	FJ2101375	0.00064	<0.010	<0.000050	0.0013	6.60	0.00043	<0.0000050	0.000810	0.0008	<0.050	0.440	0.000302	2.15	<0.000010	1.33	0.116	4.76	<0.000010	<0.00010	<0.00030	0.000465	<0.00050	<0.0010	<0.00020	1.45
PR-IDZ	12/7/2021 12:40	FJ2101420-003	M	FJ2101420	0.00055	<0.010	<0.000050	0.0013	6.17	0.00061	<0.0000050	0.000826	0.0007	<0.050	0.439	0.000317	2.18	<0.000010	1.16	0.107	4.75	<0.000010	<0.00010	<0.00030	0.000456	<0.00050	<0.0010	<0.00020	4.56
PR-IDZ	12/15/2021 15:30	FJ2101472-004	M	FJ2101472	0.00085	<0.010	<0.000050	0.0012	6.65	0.00064	<0.0000050	0.000850	0.00090	<0.050	0.443	0.000243	2.36	<0.000010	1.22	0.112	4.88	<0.000010	<0.00010	<0.00030	0.000425	<0.00050	0.0021	<0.00020	2.06
PR-IDZ	12/23/2021 14:15	FJ2101512-003	M	FJ2101512	0.00062	<0.010	<0.000050	0.0012	6.20	0.00084	<0.0000050	0.000887	0.0007	<0.050	0.426	0.000304	2.25	<0.000010	1.20	0.113	5.25	<0.000010	<0.00010	<0.00030	0.000424	<0.00050	<0.0010	<0.00020	6.12
PR-IDZ	12/30/2021 14:45	FJ2200029-002	M	FJ2200029	0.00060	<0.010	<0.000050	0.0012	6.74	0.00057	<0.0000050	0.000901	0.0008	<0.050	0.430	0.000316	2.43	<0.000010	1.22	0.108	5.18	<0.000010	<0.00010	<0.00030	0.000462	<0.00050	0.0036	<0.00020	2.28
PR-Isolation-Zone	1/12/2021 9:00	ZD9466	M	C102853																									3.7
PR-Isolation-Zone	1/16/2021 16:15	ZE3033	M	C103544																									3.7
PR-Isolation-Zone	1/22/2021 13:30	ZE9300	M	C104704																									2.2
PR-Isolation-Zone	1/28/2021 13:40	ZF8630	M	C106327																									2.7
PR-Isolation-Zone	2/6/2021 11:50	ZH3139	M	C108285																									10
PR-Isolation-Zone	2/14/2021 10:45	ZI0123	M	C109675																									29
PR-Isolation-Zone	2/18/2021 14:30	ZI6456	M	C110759																									12
PR-Isolation-Zone	2/26/2021 12:50	ZJ8525	M	C112618																									19
PR-Isolation-Zone	3/6/2021 12:15	ZL3539	M	C115040																									7.0
PR-Isolation-Zone	3/13/2021 14:30	ZM2423	M	C116756																									4.0
PR-Isolation-Zone	3/20/2021 16:20	ZN1536	M	C118497																									9.5
PR-Isolation-Zone	3/25/2021 17:00	ZN6326	M	C119610																									4.3
PR-Isolation-Zone	4/4/2021 12:10	ZO6465	M	C121580	<0.0005	<0.01	<0.0002	0.0035	9.39	0.0737	<0.0000019	0.0015	<0.001		0.790	0.00041	2.58	<0.00002	18.7	0.143	16.9	<0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	5.9
PR-Isolation-Zone	4/6/2021 15:05	ZO9473	M	C122250	<0.0005	<0.01	<0.0002	0.0025	7.44	0.0119	<0.0000019	0.0015	<0.001		0.560	0.00046	2.54	<0.00002	4.05	0.114	8.6	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	2.4
PR-Isolation-Zone	4/7/2021 15:25	ZP0884	M	C122580	<0.0005	<0.01	<0.0002	0.0021	7.38	<0.001	<0.0000019	0.0016	<0.001		0.500	0.00045	2.24	<0.00002	2.23	0.116	6.7	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	3.8
PR-Isolation-Zone	4/16/2021 11:50	ZQ1483	M	C124799																									4.0
PR-Isolation-Zone	4/22/2021 11:00	ZR1317	M	C126529																									1.8
PR-Isolation-Zone	5/3/2021 11:00	ZS6023	M	C129096																									1.5
PR-Isolation-Zone	5/8/2021 15:20	ZT6588	M	C130995																									1.2
PR-Isolation-Zone	5/14/2021 10:45	ZU4955	M	C132327																									0.69
PR-Isolation-Zone	5/21/2021 10:30	ZV5661	M	C134400																									0.34
PR-Isolation-Zone	5/27/2021 12:00	ZW4843	M	C136103																									1.2
PR-Isolation-Zone	6/3/2021 11:00	ZX7152	M	C138404																									1.4
PR-Isolation-Zone	6/9/2021 14:30	ZY6856	M	C140198																									0.34
PR-Isolation-Zone	6/17/2021 13:30	AAC469	M	C142866																									0.72
PR-Isolation-Zone	6/24/2021 15:35	AAQ180	M	C144970																									1.5
PR-Isolation-Zone	6/30/2021 11:45	AAZ009	M	C146528																									2.5
PR-Isolation-Zone	7/8/2021 13:00	ABM764	M	C148925																									0.53
PR-Isolation-Zone	7/15/2021 16:30	ABY392	M	C150960																									0.58
PR-Isolation-Zone	7/21/2021 16:15	ACH934	M	C152481																									16
PR-Isolation-Zone	7/31/2021 13:20	ADA375	M	C155508																									7.1
PR-Isolation-Zone	8/11/2021 13:30	ADR993	M	C158615																									3.6
PR-Isolation-Zone	8/18/2021 12:20	AED523	M	C160793																									1.7
PR-Isolation-Zone	8/25/2021 17:35	AEP249	M	C162703																									1.4
PR-Isolation-Zone	9/1/2021 16:45	AFD000	M	C165103																									1.2
PR-Isolation-Zone	9/8/2021 11:50	AFO063	M	C167059																									0.97
PR-Isolation-Zone	9/15/2021 11:05	AGD166	M	C169361																									0.92
PR-Isolation-Zone	9/22/2021 11:20	AGR071	M	C171568																									0.92
PR-Isolation-Zone	9/29/2021 13:00	AHI613	M	C174181																									1.3
PR-Isolation-Zone	10/6/2021 13:10	AHR790	M	C176098																									0.93
PR-Isolation-Zone	10/13/2021 12:40	AIE381	M	C178189																									1.0
PR-Isolation-Zone	10/20/2021 13:00	AIT540	M	C180689																									1.5
PR-Isolation-Zone	10/27/2021 15:00	AJH729	M	C182990																									1.1
PR-Isolation-Zone	11/3/2021 12:55	AJX287	M	C185315																									1.3

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
PR-Isolation-Zone	11/10/2021 13:00	AKN279	M	C187468																									1.7
PR-US-R5A	5/11/2021 13:55	ZU0126	M	C131574	0.00121	0.022	<0.0002	0.0022	8.25	0.0036	<0.0000019	<0.001	0.0014		0.775	0.00031	1.98	<0.00002	1.98	0.096	5.2	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	220
PR-US-R5A	5/12/2021 13:25	ZU2105	M	C131920	0.00126	0.018	<0.0002	0.0027	8.94	0.0011	<0.0000019	<0.001	0.0014		0.872	0.00033	2	<0.00002	2.17	0.098	4.8	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	0.00015	220
PR-US-R5A	5/13/2021 13:25	ZU4965	M	C132331	0.00121	0.036	<0.0002	0.0031	8.51	0.0089	<0.0000019	<0.001	0.0014		0.804	0.00028	1.86	<0.00002	2.04	0.084	4.6	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	0.00012	190
PR-US-R5A	7/27/2021 13:20	ACT047	M	C154246	<0.0005	0.028	<0.0002	<0.002	5.56	0.0033	0.0000025	<0.001	<0.001		0.410	0.00029	1.76	<0.00002	1.26	0.092	<3.0	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	2.5
PR-US-R5A	8/11/2021 14:50	ADR991	M	C158615	0.00063	<0.01	<0.0002	0.0069	13.9	0.0173	<0.0000019	0.0011	0.0011		1.04	0.00038	2.3	<0.00002	14.5	0.242	33.2	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001	1.9
PR-US-R5A	6/30/2021 13:30	AAZ008	M	C146528	0.00073	0.067	<0.0002	<0.002	6.20	0.005	<0.0000019	<0.001	<0.001		0.399	0.00034	2.04	<0.00002	1.24	0.099	5.9	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	5.4
PR-US-R5A	7/7/2021 14:00	ABK534	M	C148516	0.00052	0.037	<0.0002	<0.002	6.89	<0.001	<0.0000019	<0.001	<0.001		0.549	0.00036	2.29	<0.00002	1.40	0.14	5.0	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	3.0
PR-US-R5A	7/14/2021 11:05	ABX617	M	C150851	0.00051	0.021	<0.0002	<0.002	6.82	<0.001	<0.0000019	<0.001	<0.001		0.534	0.00028	2.08	<0.00002	1.35	0.143	5.1	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	2.7
PR-US-R5A	7/21/2021 12:50	ACH923	M	C152478	0.0006	0.083	<0.0002	<0.002	6.37	0.0025	<0.0000019	<0.001	<0.001		0.495	0.00039	2.2	<0.00002	1.29	0.123	6.3	<0.00001	<0.005	<0.005	0.00041	<0.005	<0.005	0.00014	8.1
PR-US-R5A	8/18/2021 13:10	AED522	M	C160793	0.0006	0.011	<0.0002	0.003	8.74	0.0057	<0.0000019	<0.001	<0.001		0.574	0.00055	1.76	<0.00002	4.26	0.133	12.6	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	1.9
PR-US-R5A	8/25/2021 13:20	AEP246	M	C162703	0.00078	0.024	<0.0002	0.0041	9.27	0.0059	<0.0000019	0.001	0.0013		0.652	0.00037	1.96	<0.00002	7.02	0.157	14.7	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	14
PR-US-R5A	9/1/2021 13:30	AFC997	M	C165103	<0.0005	<0.01	<0.0002	0.0033	7.97	0.0045	<0.0000019	<0.001	<0.001		0.527	0.00041	1.72	<0.00002	5.47	0.134	6.4	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	2.5
PR-US-R5A	9/8/2021 13:20	AFO061	M	C167059	0.00058	<0.01	<0.0002	<0.002	6.58	<0.001	<0.0000019	<0.001	<0.001		0.438	0.00035	1.69	<0.00002	1.51	0.104	7.7	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	1.8
PR-US-R5A	9/15/2021 13:50	AGD169	M	C169361	<0.0005	<0.01	<0.0002	0.0066	12.2	0.0038	<0.0000019	<0.001	<0.001		0.819	0.00031	2.23	<0.00002	13.1	0.203	27.6	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	1.1
PR-US-R5A	9/19/2021 12:35	AGJ668	M	C170331	0.00062	<0.01	<0.0002	<0.002	6.90	<0.001	<0.0000019	<0.001	<0.001		0.439	0.00023	1.72	<0.00002	1.55	0.101	5.6	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	3.0
PR-US-R5A	9/22/2021 13:25	AGR070	M	C171568	0.00058	<0.01	<0.0002	<0.002	6.66	0.002	<0.0000019	<0.001	<0.001		0.461	0.00036	1.8	<0.00002	1.87	0.117	8.3	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	4.7
PR-US-R5A	9/29/2021 15:40	AHF736	M	C174181	0.00068	<0.01	<0.0002	<0.002	7.61	<0.001	0.0000021	<0.001	<0.001		0.475	0.00039	1.96	<0.00002	1.52	0.12	6.3	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	4.0
PR-US-R5A	10/6/2021 14:55	AHR787	M	C176098	0.00053	<0.01	<0.0002	<0.002	5.37	<0.001	<0.0000019	<0.001	<0.001		0.423	0.00026	1.58	<0.00002	1.30	0.095	<3.0	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	5.5
PR-US-R5A	10/13/2021 14:00	AIE380	M	C178189	0.00067	<0.01	<0.0002	<0.002	5.24	<0.001	<0.0000019	<0.001	<0.001		0.459	0.00031	2.1	<0.00002	4.12	0.1	<3.0	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	<0.0001	5.1
PR-US-R5A	10/20/2021 15:50	AIT538	M	C180689	0.00054	<0.01	<0.0002	<0.002	6.01	<0.001	<0.0000019	<0.001	<0.001		0.430	0.00025	2.07	<0.00002	1.19	0.104	4.4	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	2.3
PR-US-R5A	11/10/2021 15:00	AKN277	M	C187468	0.00062	<0.01	<0.0002	<0.002	5.24	<0.001	<0.0000019	<0.001	<0.001		0.395	0.00027	1.46	<0.00002	1.17	0.099	<3.0	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	5.7
PR-US-R5A	11/25/2021	FJ2101334-006	M	FJ2101334	0.00070	<0.010	<0.000050	0.0012	6.61	0.00067	<0.0000050	0.000785	0.0006	<0.050	0.462	0.000268	2.12	<0.000010	1.24	0.105	4.97	<0.000010	<0.00010	<0.00030	0.000448	<0.00050	<0.0010	<0.00020	2.16
PR-US-R5A	12/2/2021 16:00	FJ2101375-005	M	FJ2101375	0.00045	<0.010	<0.000050	0.0052	11.1	0.00622	<0.0000050	0.000794	0.0007	<0.050	0.722	0.000379	2.83	<0.000010	9.48	0.199	19.6	<0.000010	<0.00010	<0.00030	0.000842	<0.00050	<0.0010	<0.00020	2.20
PR-US-R5A	12/23/2021 15:00	FJ2101512-004	M	FJ2101512	0.00068	<0.010	<0.000050	0.0012	6.35	0.00189	<0.0000050	0.000871	0.00080	<0.050	0.460	0.000343	2.28	<0.000010	1.22	0.114	5.16	<0.000010	<0.00010	<0.00030	0.000434	<0.00050	0.0031	<0.00020	10.5
R5a_MOB_US	7/27/2021 13:00	ACT046	M	C154246	0.00097	0.133	0.00025	0.004	8.22	0.0125	0.0000043	<0.001	0.0029		0.687	0.00026	1.34	<0.00002	2.21	0.078	<3.0	<0.00001	<0.005	<0.005	0.00026	<0.005	0.0079	<0.0001	32
RBAC-Sump-BT	5/2/2021 14:25	ZS6049	M	C129102	0.00072	<0.01	<0.0002	0.177	13.6	0.0233	<0.0000019	0.0066	0.0043		3.00	0.00253	3.65	<0.00002	229	0.224	80.7	0.000016	<0.005	<0.005	0.00244	<0.005	<0.005	<0.0001	58
RBAC-Sump-BT	7/24/2021 13:30	ACO404	M	C153513	0.00083	<0.01	<0.0002	0.237	13.6	0.0105	<0.0000019	0.0029	0.0032		3.19	0.0012	4.29	<0.00002	136	0.175	13.1	0.000012	0.0071	<0.005	0.00226	<0.005	<0.005	<0.0001	180
RBAC-Sump-BT	9/4/2021 14:40	AFH293	M	C165785	<0.0005	<0.01	<0.0002	0.212	15.0	0.0027	<0.0000019	0.002	0.0011		2.85	0.00103	5.24	<0.00002	114	0.18	12.1	0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	3.3
RBAC-Sump-BT	10/12/2021 13:50	AIB247	M	C177600	0.00103	0.015	<0.0002	0.0261	7.19	0.0222	<0.0000019	0.0016	0.0044		1.19	0.00038	1.9	<0.00002	51.2	0.133	22.4	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	5.0
RBDT-Sump	6/29/2021 16:00	AAY931	M	C146501	0.00304	<0.01	<0.0002	0.137	10.7	<0.001	<0.0000019	0.0041	0.0015		5.51	0.00085	5.06	<0.00002	318	0.203	94.0	0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	0.00012	21
RSEM-L5E-P2-EOP	6/30/2021 0:40	AAZ005	M	C146528	0.00202	0.027	<0.0002	0.0327	42.8	0.0023	<0.0000019	0.0129	0.0016		5.81	0.0079	0.323	<0.00002	179	0.5	196	0.000021	<0.005	<0.005	0.00594	<0.005	<0.005	0.00022	1.7
RSEM-L5E-P2-EOP	7/1/2021 12:15	ABB247	M	C146903	0.00181	0.024	<0.0002	0.0392	38.6	0.0032	0.0000025	0.0154	0.0017		5.75	0.00802	0.505	<0.00002	215	0.528	226	0.000022	<0.005	<0.005	0.00656	<0.005	<0.005	<0.0001	2.1
RSEM-L5E-P2-EOP	7/2/2021 11:10	ABB256	M	C146905	0.00219	0.063	<0.0002	0.0538	41.9	0.0063	0.0000019	0.0179	0.0019		5.77	0.00885	0.672	<0.00002	276	0.471	242	<0.00001	<0.005	<0.005	0.00752	<0.005	<0.005	<0.0001	2.0
RSEM-L5E-P2-EOP	7/9/2021 12:30	ABM750	M	C148923	0.00143	0.042	<0.0002	0.0486	37.5	0.0019	<0.0000019	0.0196	0.0016		5.96	0.00919	0.662	<0.00002	336	0.569	280	0.000031	<0.005	<0.005	0.00728	<0.005	<0.005	0.00017	1.7
RSEM-L5E-P2-EOP	7/10/2021 14:00	ABP529	M	C149429	0.00152	0.053	<0.0002	0.0514	36.6	0.002	<0.0000019	0.0205	0.0017		6.02	0.00983	0.8	<0.00002	308	0.587	248	0.000027	<0.005	<0.005	0.00725	<0.005	<0.005	0.00023	2.1
RSEM-L5E-P2-EOP	7/11/2021 12:00	ABP675	M	C149459	0.00147	0.057	<0.0002	0.0563	35.9	0.0019	<0.0000019	0.0218	0.0018		5.99	0.00933	0.96	<0.00002	331	0.585	261	0.000027	<0.005	<0.005	0.00747	<0.005	<0.005	0.00019	2.2
RSEM-L5E-P2-EOP	7/12/2021 6:30	ABP855	M	C149486	0.00136	0.052	<0.0002	0.0553	35.7	0.0014	0.0000024	0.0218	0.0018		5.87	0.00959	0.919	<0.00002	357	0.577	281	0.000028	<0.005	<0.005	0.00761	<0.005	<0.005	0.00025	1.9
RSEM-L5E-P2-EOP	7/13/2021 11:00	ABU092	M	C150243	0.00129	0.046	<0.0002	0.0612	36.9	0.0011	<0.0000019	0.0229	0.0019		6.06	0.0092	0.931	<0.00002	367	0.588	353	0.000026	<0.005	<0.005	0.0078	<0.005	<0.005	0.00019	1.5
RSEM-L5E-P2-EOP	7/14/2021 12:20	ABX612	M	C150851	0.00137	0.047	<0.0002	0.0629	35.0	0.0011	<0.0000019	0.0244	0.002		6.09	0.00864	0.979	<0.00002	379	0.588	320	0.00003	<0.005	<0.005	0.00871	<0.005	<0.005	0.00022	1.3
RSEM-L5E-P2-EOP	7/14/2021 12:30	ABX613	D	C150851	0.0013	0.053	<0.0002	0.0616	33.6	0.0013	<0.0000019	0.0236	0.002		6.03	0.00947	0.981	<0.00002	384	0.578	325	0.000029	<0.005	<0.005	0.00871	<0.005	<0.005	0.00021	1.8
RSEM-L5E-P2-EOP	7/15/2021 12:25	ABY389	M	C150960	0.00122	0.054	<0.0002	0.0629	31.8	0.002	<0.0000019	0.0242	0.002		5.86	0.00907	1.02	<0.00002	427	0.593	325	0.000027	<0.005	<0.005	0.00912	<0.005	<0.005	0.00018	2.0
RSEM-L5E-P2-EOP	7/16/2021 10:35	ABZ188	M	C151029	0.00126	0.052	<0.0002	0.0592	31.5	0.0015	<0.0000019	0.0244	0.0021		5.87	0.009	0.998	<0.00002	437	0.573	327	0.00003	<0.005	<0.005	0.00918	<0.005	<0.005	0.00019	1.9
RSEM-L5E-P2-EOP	7/17/2021 12:20	ACC244	M	C151542	0.00117	0.057	<0.0002	0.0653	31.2	0.0017	<0.0000019	0.0248	0.002		5.78	0.0092	1.16	<0.00002	416	0.563	411	0.000029	<0.005	<0.005	0.00904	<0.005	<0.005	0.0002	2.8
RSEM-L5E-P2-EOP	7/18/2021 15:50	ACC420	M	C151549	0.0012	0.057	<0.0002	0.064	30.7	0.0018	<0.0000019	0.0251	0.002		5.76	0.00884	1.17	<0.00002	427	0.56	401	0.00003	<0.005	<0.005	0.00916	<0.005	<0.005	0.00028	2.1
RSEM-L5E-P2-EOP	7/19/2021 11:55	ACF040	M	C151946	0.00118	0.065	<0.0002	0.0598	30.7	0.0023	<0.0000019	0.0252	0.0021		5.69	0.00913	1.21	<0.00002	471	0.551	343	0.000027	<0.005	<0.005	0.00885	<0.005	<0.005	0.0003	2.1
RSEM-L5E-P2-EOP	7/20/2021 10:45	ACH819	M	C152456	0.0014	0.017	<0.0002	0.066	31.4	<0.001	<0.0000019	0.0205	0.0026		5.47	0.00824	0.862	<0.00002	406	0.407	264	0.000025	<0.005	<0.005	0.00744	<0.005	<0.005	0.00015	2.3
RSEM-L5E-P2-EOP	7/21/2021 11:20	ACH930	M	C152481	0.00119	0.017	<0.0002	0.0666	32.4	<0.001	<0.0000019	0.0209	0.0021		5.73	0.00617	0.867	<0.00002	408	0.421	357	0.000026	<0.005	<0.005	0.00765	<0.005	<0.005	<0.0001	3.4
RSEM-L5E-P2-EOP	7/22/2021 12:35	ACL550	M	C152988	0.00162	0.226	<0.0002	0.0572	32.2	0.0067	<0.0000019	0.0202	0.0022		5.87	0.00762	1.05	<0.00002	431	0.452	346	0.000027	<0.005	<0.005	0.0072	<0.005	<0.005	0.00013	29
RSEM-L5E-P2-EOP	7/23/2021 12:30	ACL703	M	C153012	0.00161	0.158	<0.0002	0.0594	33.0	0.0057	<0.0000019	0.0197	0.0022		5.76	0.00779	0.983	<0.00002	387	0.457	321	0.000027	<0.005	<0.005	0.00731	<0.005	<0.005	0.00014	9.7
RSEM-L5E-P2-EOP	8/23/2021 13:00	AEL593	M	C161925	0.00178	<0.01	<0.0002	0.0513	40.3	0.217	<0.0000019	0.018	0.0106		5.68	0.0123	0.667	<0.00002	404	0.52	365	0.000025	<0.005	<0.005	0.00688	<0.005	<0.005	<0.0001	6.4
RSEM-L5E-P2-EOP	8/24/2021 13:25	AEN132	M	C162291	0.00173	<0.01	<0.0002	0.0559	45.5	0.222	<0.0000019	0.0185	0.0114		5.90	0.011	0.697	<0.00002	297	0.54	316	0.000025	<0.005	<0.005	0.0072	<0.005	<0.005	<0.0001	3.8
RSEM-L5E-P2-EOP	8/24/2021 13:35	AEN133	D	C162291	0.0017	<0.01	<0.0002	0.0568	44.8	0.22	<0.0000019	0.0193	0.0112		5.85	0.0114	0.711	<0.00002	332	0.528	326	0.000027	<0.005	<0.005	0.00748	<0.005	<0.005	<0.0001	4.0
RSEM-L5E-P2-EOP	8/25/2021 11:00	AEP243	M	C162703	0.00144	<0.01	<0.0002	0.0512	40.8	0.197	<0.0000019	0.018	0.0106		4.95	0.0112	0.672	<0.00002	279	0.464	290	0.000022	<0.005	<0.005	0.00714	<0.005	<0.005	<0.0001	3.5
RSEM-L5E-P2-EOP	8/26/2021 15:45	AER559	M	C163145	<0.0025	<0.05	<0.001	0.053	41.4	0.207	<0.0000019	0.0169	0.0124		5.90	0.00966	0.687	<0.0001	289	0.543	286	<0.00005	<0.025	<0.025	0.00675	<0.025	<0.025	<0.0005	2.0
RSEM-L5E-P2-EOP	9/5/2021 10:55	AFI822	M	C166081	0.00136	<0.01	<0.0002	0.0571	39.4	0.155	<0.0000019	0.0151	0.0126		5.34	0.00945	0.622	<0.00002	397	0.521	198	0.000023	<0.005	<0.005	0.00609	<0.005	<0.005	0.00013	1.2
RSEM-L5E-P2-EOP	9/6/2021 10:05	AFI721	M	C166063	0.00105	<0.01	<0.0002	0.0554	40.3	0.13	<0.0000019	0.0123	0.0119		5.76	0.00781	0.57	<0.00002	373	0.496	327	0.000022	<0.005	<0.005	0.00607	<0.005	<0.005	<0.0001	1.0
RSEM-L5E-P2-EOP	9/7/2021 15:30	AFL347	M	C166557	0.00136	<0.005	<0.0002	0.055	40.6	0.119	<0.0000019	0.0123	0.0118		5.79	0.00743	0.543	<0.00002	357	0.502	192	0.000022	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001	1.2
RSEM-L5E-P2-EOP	9/8/2021 15:40	AFO059	M	C167059	<0.0025	<0.05	<0.001	0.064	45.1	0.134	<0.0000019	0.0173	0.0131		5.89	0.00964	0.554	<0.0001	363	0.494	343	<0.00005	<0.025	<0.025	0.00719	<0.025	<0.025	<0.0005	1.1
RSEM-L5E-P2-EOP	9/9/2021 16:20	AFQ847	M	C167445	<0.0025	<0.05	<0.001	0.062	45.0	0.128	<0.0000019	0.0157	0.0122		6.25	0.00853	0.629	<0.0001	355	0.555	296	<0.00005	<0.025	<0.025	0.00671	<0.025	<0.025	<0.0005	1.1
RSEM-L5E-P2-EOP	9/10/2021 12:20	AFQ883	M	C167449	<0.0025	<0.05	<0.001	0.057	42.9	0.112	<0.0000019	0.0147	0.0116		5.93	0.00795	0.538	<0.0001	338	0.523	285	<0.00005	<0.025	<0.025	0.00631	<0.025	<0.025	<0.0005	1.3
RSEM-L5E-P2-EOP	9/11/2021 16:00	AFV355	M	C168029	<0.0025	<0.05	<0.001	0.061	45.4	0.111	<0.0000019	0.0154	0.012		6.59	0.00956	0.506	<0.0001	341	0.566	292	<0.00005	<0.025	<0.025	0.00655	<0.025	<0.025	<0.0005	1.2
RSEM-L5E-P2-EOP	9/12/2021 10:30	AFV419	M	C168037	<0.0025	<0.05	<0.001	0.06	44.5	0.102	<0.0000019	0.0148	0.0119		6.16	0.00932	<0.5	<0.0001	335	0.558	294	<0.00005	<0.025	<0.025	0.0064	<0.025	<0.025	<0.0005	1.5
RSEM-L5E-P2-EOP	9/13/2021 6:20	AFV246	M	C168020	<0.0025	<0.05	<0.001	0.058	44.3	0.0967	<0.0000019	0.0146	0.0115		6.04	0.00888	<0.5	<0.0001	317	0.548	287	<0.00005	<0.025	<0.025	0.00617	<0.025	<0.025	<0.0005	0.81
RSEM-L5E-P2-EOP	9/14/2021 12:05	AGB019	M	C169017	0.00137	0.007	<0.0002	0.0599	49.1	0.0799	<0.0000019	0.0163	0.0115		6.34	0.0118	0.439	<0.00002	319	0.668	345	0.00002	<0.005	<0.005	0.00755	<0.005	<0.005	<0.0001	1.1
RSEM-L5E-P2-EOP	9/15/2021 14:50	AGD167	M	C169361	<0.0025	<0.05	<0.001	0.07	52.8	0.0464	<0.0000019	0.0189	0.0111		6.31	0.00746	<0.5	<0.0001	446	0.565	425	<0.00005	<0.025	<0.025	0.00828	<0.025	<0.025	<0.0005	1.5
RSEM-L5E-P2-EOP	9/16/2021 15:30	AGG332	M	C169805	0.00138	<0.01	<0.0002	0.0701	46.7	0.0321	<0.0000019	0.0193	0.0093		6.37	0.011	0.382	<0.00002	490	0.564	443	0.000022	<0.005	<0.005	0.00831	<0.005	<0.005	<0.0001	1.9
RSEM-L5E-P2-EOP	9/17/2021 12:30	AGG310	M	C169799	<0.0025	<0.05	<0.001	0.078	49.8	0.0216	0.0000021	0.02	0.0083		6.23	0.00762	<0.5	<0.0001	491	0.619	421	<0.00005	<0.025	<0.025	0.00892	<0.025	<0.025	<0.0005	2.9
RSEM-L5E-P2-EOP	9/18/2021 16:30	AGJ637	M	C170329	0.00123	<0.01	<0.0002	0.0783	44.5	0.0079	<0.0000019	0.0209	0.0065		6.35	0.00918	0.395	<0.00002	557	0.627	435	0.000022	<0.005	<0.005	0.00861	<0.005	<0.005	<0.0001	1.8

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-L5E-P2-EOP	9/19/2021 11:55	AGJ667	M	C170331	0.00113	<0.01	<0.0002	0.0817	43.4	0.0057	<0.0000019	0.0214	0.0059		6.27	0.00874	0.402	<0.00002	549	0.632	409	0.000024	<0.005	<0.005	0.0087	<0.005	<0.005	<0.0001	1.6
RSEM-L5E-P2-EOP	9/20/2021 14:10	AGM223	M	C170680	0.00119	<0.01	<0.0002	0.081	44.3	0.0057	<0.0000019	0.0215	0.0058		6.42	0.00874	0.379	<0.00002	581	0.636	457	0.000021	<0.005	<0.005	0.00886	<0.005	<0.005	<0.0001	1.6
RSEM-L5E-P2-EOP	9/22/2021 14:45	AGR067	M	C171568	0.00116	<0.01	<0.0002	0.0815	43.6	0.0044	<0.0000019	0.0213	0.0049		6.25	0.00943	0.39	<0.00002	599	0.63	462	0.00002	<0.005	<0.005	0.00877	<0.005	<0.005	<0.0001	2.1
RSEM-L5E-P2-EOP	9/23/2021 13:30	AGT567	M	C171954	0.00121	<0.01	<0.0002	0.0825	46.5	0.0038	<0.0000019	0.0199	0.0046		6.30	0.00643	0.44	<0.00002	511	0.581	386	0.00002	<0.005	<0.005	0.00893	<0.005	<0.005	<0.0001	2.2
RSEM-L5E-P2-EOP	9/24/2021 11:40	AGV852	M	C172263	0.0011	<0.02	<0.0004	0.0767	44.5	0.0093	<0.0000019	0.0199	0.0041		6.18	0.00558	0.551	<0.00004	553	0.592	442	0.000021	<0.01	<0.01	0.00934	<0.01	<0.01	<0.0002	2.3
RSEM-L5E-P2-EOP	9/24/2021 11:50	AGV853	D	C172263	0.0011	<0.02	<0.0004	0.0792	45.3	0.0097	<0.0000019	0.0203	0.0043		6.24	0.00557	0.538	<0.00004	559	0.601	445	0.000021	<0.01	<0.01	0.00927	<0.01	<0.01	<0.0002	2.6
RSEM-L5E-P2-EOP	9/25/2021 11:35	AGX498	M	C172580	0.00097	<0.01	<0.0002	0.0828	49.2	0.0012	<0.0000019	0.0178	0.0037		6.32	0.00564	0.469	<0.00002	635	0.489	458	0.000025	<0.005	<0.005	0.00827	<0.005	<0.005	<0.0001	7.8
RSEM-L5E-P2-SP	4/5/2021 16:15	ZO7521	M	C121801	0.00287	<0.01	<0.0002	0.0069	25.1	0.0532	<0.0000019	0.0041	0.0027		5.35	0.00378	1.38	<0.00002	22.6	0.275	63.1	0.000015	<0.005	<0.005	0.00271	<0.005	<0.005	<0.0001	12
RSEM-L5E-P2-SP	4/28/2021 15:50	ZS0317	M	C128230	0.00269	<0.01	<0.0002	0.0082	29.3	0.0065	<0.0000019	0.005	0.0026		5.51	0.00417	1.16	<0.00002	29.4	0.323	75.9	0.000014	<0.005	<0.005	0.00343	<0.005	<0.005	<0.0001	0.84
RSEM-L5E-P2-SP	5/4/2021 14:30	ZS9944	M	C129944	0.002	<0.01	<0.0002	0.0104	29.6	0.0024	0.0000028	0.0057	0.002		5.23	0.00498	0.998	<0.00002	45.6	0.331	87.9	0.000014	<0.005	<0.005	0.00372	<0.005	<0.005	<0.0001	2.4
RSEM-L5E-P2-SP	5/6/2021 12:40	ZT3105	M	C130484	0.00224	<0.01	<0.0002	0.0104	31.5	<0.001	<0.0000019	0.0059	0.0022		5.46	0.00517	0.924	<0.00002	47.2	0.348	91.0	0.000016	<0.005	<0.005	0.00379	<0.005	<0.005	<0.0001	2.2
RSEM-L5E-P2-SP	5/13/2021 14:25	ZU4939	M	C132324	0.00205	<0.01	<0.0002	0.0112	35.0	<0.001	<0.0000019	0.0062	0.0021		5.77	0.00528	0.624	<0.00002	48.7	0.381	98.6	0.000016	<0.005	<0.005	0.00397	<0.005	<0.005	<0.0001	1.3
RSEM-L5E-P2-SP	5/20/2021 14:45	ZV5701	M	C134406	0.00185	<0.01	<0.0002	0.0123	33.9	<0.001	<0.0000019	0.007	0.0019		5.61	0.00573	0.405	<0.00002	71.2	0.384	110	0.000017	<0.005	<0.005	0.00423	<0.005	<0.005	<0.0001	1.3
RSEM-L5E-P2-SP	5/29/2021 12:50	ZW9129	M	C136816	0.00178	<0.01	<0.0002	0.0139	37.3	<0.001	<0.0000019	0.007	0.0019		5.82	0.00538	0.218	<0.00002	69.1	0.407	117	<0.00001	<0.005	<0.005	0.00449	<0.005	<0.005	<0.0001	1.4
RSEM-L5E-P2-SP	6/5/2021 15:30	ZY0224	M	C138844	0.0017	<0.01	<0.0002	0.0143	38.1	<0.001	<0.0000019	0.0067	0.0016		5.54	0.00513	0.122	<0.00002	66.5	0.406	114	0.000017	<0.005	<0.005	0.00451	<0.005	<0.005	<0.0001	0.98
RSEM-L5E-P2-SP	6/10/2021 10:25	ZY8798	M	C140527	0.00156	<0.01	<0.0002	0.0185	35.2	<0.001	<0.0000019	0.0095	0.0016		5.37	0.00578	0.231	<0.00002	110	0.431	141	0.000017	<0.005	<0.005	0.00483	<0.005	<0.005	<0.0001	0.83
RSEM-L5E-P2-SP	6/14/2021 9:45	ZZ2008	M	C141059	0.00191	<0.01	<0.0002	0.0224	35.5	<0.001	<0.0000019	0.0123	0.0017		5.63	0.00642	0.28	<0.00002	148	0.456	165	0.00002	<0.005	<0.005	0.00534	<0.005	<0.005	<0.0001	0.74
RSEM-L5E-P2-SP	6/20/2021 12:00	AAF491	M	C143330	0.00149	<0.01	<0.0002	0.0268	35.4	<0.001	<0.0000019	0.0101	0.0014		5.34	0.00818	0.188	<0.00002	178	0.372	135	0.000016	<0.005	<0.005	0.00479	<0.005	<0.005	<0.0001	2.3
RSEM-L5E-P2-SP	6/22/2021 10:40	AAL814	M	C144319	0.00146	<0.01	<0.0002	0.0253	33.1	<0.001	<0.0000019	0.0104	0.0014		5.59	0.00574	0.169	<0.00002	165	0.404	151	0.000019	<0.005	<0.005	0.00519	<0.005	<0.005	<0.0001	2.2
RSEM-L5E-P2-SP	6/23/2021 11:40	AAO116	M	C144722	0.00163	<0.01	<0.0002	0.0359	39.2	<0.001	<0.0000019	0.0128	0.0017		5.83	0.0083	0.201	<0.00002	190	0.439	216	0.000022	<0.005	<0.005	0.00598	<0.005	<0.005	<0.0001	2.9
RSEM-L5E-P2-SP	6/24/2021 11:10	AAQ174	M	C144970	0.00155	<0.01	<0.0002	0.0298	31.5	<0.001	0.0000034	0.0108	0.0015		5.25	0.00708	0.157	<0.00002	151	0.382	118	0.000019	<0.005	<0.005	0.00594	<0.005	<0.005	<0.0001	3.4
RSEM-L5E-P2-SP	6/25/2021 11:20	AAP484	M	C144894	0.00159	<0.01	<0.0002	0.0302	32.7	<0.001	<0.0000019	0.0107	0.0015		5.33	0.0071	0.178	<0.00002	150	0.394	113	0.00002	<0.005	<0.005	0.00596	<0.005	<0.005	<0.0001	3.3
RSEM-L5E-P2-SP	6/26/2021 13:30	AAU429	M	C145599	0.00187	<0.01	<0.0002	0.0358	41.7	<0.001	0.0000023	0.0131	0.0018		6.20	0.00797	0.224	<0.00002	187	0.474	241	0.000023	<0.005	<0.005	0.00635	<0.005	<0.005	<0.0001	3.7
RSEM-L5E-P2-SP	6/27/2021 10:40	AAU316	M	C145583	0.00254	<0.01	<0.0002	0.0358	42.3	<0.001	0.0000044	0.0136	0.0018		6.39	0.00843	0.225	<0.00002	189	0.488	181	0.000026	<0.005	<0.005	0.00657	<0.005	<0.005	<0.0001	3.0
RSEM-L5E-P2-SP	6/28/2021 10:45	AAX133	M	C146134	0.00214	<0.01	<0.0002	0.0329	39.8	<0.001	<0.0000019	0.0125	0.0017		5.88	0.00819	0.212	<0.00002	175	0.454	171	0.000021	<0.005	<0.005	0.00626	<0.005	<0.005	<0.0001	2.5
RSEM-L5E-P2-SP	6/29/2021 11:45	AAZ024	M	C146532	0.00204	0.028	<0.0002	0.0328	40.9	0.0023	<0.0000019	0.0126	0.0015		5.89	0.00764	0.318	<0.00002	167	0.517	196	0.000022	<0.005	<0.005	0.00594	<0.005	<0.005	<0.0001	4.3
RSEM-L5E-P2-SP	7/3/2021 13:55	ABE026	M	C147272	0.0021	0.042	<0.0002	0.0486	40.4	0.005	<0.0000019	0.0174	0.0018		5.70	0.00822	0.653	<0.00002	281	0.45	244	<0.00001	<0.005	<0.005	0.00709	<0.005	0.0078	<0.0001	1.7
RSEM-L5E-P2-SP	7/4/2021 10:00	ABD988	M	C147267	0.00226	0.066	<0.0002	0.0614	46.4	0.0046	0.0000025	0.0192	0.0025		6.42	0.00957	0.736	<0.00002	315	0.531	288	<0.00001	<0.005	<0.005	0.00765	<0.005	<0.005	<0.0001	1.5
RSEM-L5E-P2-SP	7/5/2021 11:40	ABG202	M	C147674	0.00199	0.071	<0.0002	0.06	39.7	0.0046	0.0000022	0.0201	0.0027		5.36	0.00906	0.706	<0.00002	281	0.451	241	<0.00001	<0.005	<0.005	0.00806	<0.005	<0.005	<0.0001	1.7
RSEM-L5E-P2-SP	7/6/2021 15:20	ABJ181	M	C148228	0.00138	0.035	<0.0002	0.0464	38.1	0.0018	<0.0000019	0.019	0.0016		5.92	0.00923	0.689	<0.00002	332	0.571	279	0.000027	<0.005	<0.005	0.00702	<0.005	<0.005	0.00011	1.9
RSEM-L5E-P2-SP	7/7/2021 15:30	ABK535	M	C148516	0.0014	0.036	<0.0002	0.0485	37.6	0.0014	<0.0000019	0.0193	0.0017		6.04	0.00924	0.657	<0.00002	298	0.579	275	0.000025	<0.005	<0.005	0.00719	<0.005	<0.005	<0.0001	1.6
RSEM-L5E-P2-SP	7/8/2021 17:00	ABM765	M	C148925	0.00158	0.035	<0.0002	0.0482	38.0	0.0018	<0.0000019	0.0193	0.0017		6.24	0.00939	0.619	<0.00002	327	0.581	272	0.000024	<0.005	<0.005	0.00723	<0.005	<0.005	0.00025	1.4
RSEM-L5E-P2-SP	7/24/2021 10:35	ACO402	M	C153513	0.00143	0.056	<0.0002	0.0557	31.4	0.003	<0.0000019	0.0208	0.0019		5.41	0.00875	1.14	<0.00002	447	0.473	344	0.000026	<0.005	<0.005	0.0076	<0.005	<0.005	0.00021	9.1
RSEM-L5E-P2-SP	7/25/2021 11:00	ACO185	M	C153467	0.00145	0.051	<0.0002	0.0565	33.1	0.0033	<0.0000019	0.0206	0.0019		5.58	0.009	1.1	<0.00002	402	0.487	371	0.00003	<0.005	0.0051	0.0079	<0.005	<0.005	0.0002	5.3
RSEM-L5E-P2-SP	7/26/2021 11:30	ACN522	M	C153324	0.00169	0.02	<0.0002	0.0598	38.0	0.0042	<0.0000019	0.0224	<0.001		5.65	0.0111	1.01	<0.00002	445	0.538	347	<0.00001	<0.005	<0.005	0.00802	<0.005	<0.005	<0.0001	5.2
RSEM-L5E-P2-SP	7/27/2021 15:40	ACT048	M	C154246	0.00139	<0.01	<0.0002	0.0571	34.2	<0.001	0.000003	0.0186	0.0022		5.61	0.00881	0.938	<0.00002	428	0.434	335	0.000024	<0.005	<0.005	0.00752	<0.005	<0.005	0.00012	4.7
RSEM-L5E-P2-SP	7/28/2021 16:00	ACV592	M	C154699	<0.0025	<0.05	<0.001	0.055	36.8	<0.005	<0.0000019	0.022	<0.005		5.77	0.0103	1.19	<0.0001	383	0.505	318	<0.00005	<0.025	<0.025	0.00816	<0.025	<0.025	<0.0005	5.1
RSEM-L5E-P2-SP	7/30/2021 11:40	ACY656	M	C155288	<0.0025	<0.05	<0.001	0.062	39.3	<0.005	<0.0000019	0.0217	<0.005		5.92	0.0107	0.966	<0.0001	406	0.502	320	<0.00005	<0.025	<0.025	0.00791	<0.025	<0.025	<0.0005	4.2
RSEM-L5E-P2-SP	8/1/2021 14:00	ADC694	M	C155924	<0.0025	<0.05	<0.001	0.059	36.4	<0.005	<0.0000019	0.021	<0.005		5.53	0.00997	0.847	<0.0001	374	0.458	294	<0.00005	<0.025	<0.025	0.00764	<0.025	<0.025	<0.0005	2.2
RSEM-L5E-P2-SP	8/5/2021 15:30	ADK138	M	C157133	0.00189	<0.01	<0.0002	0.0629	54.4	<0.001	<0.0000019	0.023	0.002		6.76	0.0126	0.919	<0.00002	462	0.562	361	0.000036	<0.005	<0.005	0.00793	<0.005	0.0069	<0.0001	2.8
RSEM-L5E-P2-SP	8/6/2021 10:40	ADK125	M	C157131	<0.0025	<0.05	<0.001	0.058	40.4	<0.005	<0.0000019	0.0216	<0.005		5.81	0.00699	0.808	<0.0001	391	0.53	313	<0.00005	<0.025	<0.025	0.00808	<0.025	<0.025	<0.0005	6.7
RSEM-L5E-P2-SP	8/7/2021 16:20	ADM460	M	C157545	<0.0025	<0.05	<0.001	0.05	36.3	<0.005	<0.0000019	0.0212	<0.005		5.59	0.00705	0.756	<0.0001	351	0.442	372	<0.00005	<0.025	<0.025	0.00718	<0.025	<0.025	<0.0005	4.7
RSEM-L5E-P2-SP	8/8/2021 10:45	ADN230	M	C157651	<0.0025	<0.05	<0.001	0.051	37.3	<0.005	<0.0000019	0.0219	<0.005		5.74	0.00709	0.724	<0.0001	358	0.448	354	<0.00005	<0.025	<0.025	0.00743	<0.025	<0.025	<0.0005	5.5
RSEM-L5E-P2-SP	8/9/2021 10:15	ADM370	M	C157523	0.00133	<0.01	<0.0002	0.0528	36.9	<0.001	<0.0000019	0.0221	0.0017		5.74	0.00924	0.753	<0.00002	405	0.537	340	0.000025	<0.005	<0.005	0.00778	<0.005	<0.005	<0.0001	3.4
RSEM-L5E-P2-SP	8/10/2021 15:30	ADP902	M	C158211	<0.0025	<0.05	<0.001	0.054	39.3	<0.005	<0.0000019	0.0219	<0.005		5.57	0.00703	0.674	<0.0001	370	0.457	365	<0.00005	<0.025	<0.025	0.00773	<0.025	<0.025	<0.0005	4.3
RSEM-L5E-P2-SP	8/12/2021 15:30	ADU541	M	C159104	<0.0025	<0.05	<0.001	<0.01	11.9	<0.005	<0.0000019	<0.005	<0.005		0.65	0.00085	2.48	<0.0001	7.61	0.162	16	<0.00005	<0.025	<0.025	0.00063	<0.025	<0.025	<0.0005	<0.10
RSEM-L5E-P2-SP	8/14/2021 15:30	ADW203	M	C159435	0.00169	<0.01	<0.0002	0.0609	41.9	0.0015	<0.0000019	0.0231	0.0015		6.57	0.00927	0.729	<0.00002	421	0.588	345	0.000026	<0.005	<0.005	0.0085	<0.005	<0.005	<0.0001	3.0
RSEM-L5E-P2-SP	8/16/2021 15:20	ADY265	M	C159861	0.00138	<0.01	<0.0002	0.0593	40.9	0.0013	<0.0000019	0.0239	0.0013		6.35	0.0102	0.677	<0.00002	395	0.59	350	0.000027	<0.005	<0.005	0.00871	<0.005	<0.005	<0.0001	3.3
RSEM-L5E-P2-SP	8/18/2021 15:20	AED519	M	C160793	0.00157	<0.01	<0.0002	0.0554	42.7	<0.001	<0.0000019	0.0224	0.0014		6.36	0.0104	0.626	<0.00002	360	0.519	348	0.000026	<0.005	<0.005	0.00784	<0.005	<0.005	<0.0001	2.1
RSEM-L5E-P2-SP	8/20/2021 12:20	AEF525	M	C161059	0.00168	<0.01	<0.0002	0.0557	42.4	<0.001	<0.0000019	0.0209	0.0015		6.33	0.00984	0.59	<0.00002	406	0.525	349	0.000023	<0.005	<0.005	0.00759	<0.005	<0.005	<0.0001	3.4
RSEM-L5E-P2-SP	8/21/2021 16:20	AEI351	M	C161420	0.0022	<0.01	<0.0002	0.0538	44.1	0.0024	<0.0000019	0.0222	0.0015		6.58	0.0122	0.567	<0.00002	360	0.509	351	0.000027	<0.005	<0.005	0.00771	<0.005	<0.005	<0.0001	3.2
RSEM-L5E-P2-SP	8/22/2021 9:40	AEI413	M	C161433	0.00151	<0.01	<0.0002	0.0523	43.2	0.0678	<0.0000019	0.0203	0.0038		6.01	0.0123	0.575	<0.00002	344	0.499	330	0.000024	<0.005	<0.005	0.00719	<0.005	<0.005	<0.0001	9.3
RSEM-L5E-P2-SP	8/27/2021 12:10	AER549	M	C163144	<0.0025	<0.05	<0.001	0.053	40.1	0.23	<0.0000019	0.0166	0.014		5.54	0.0102	0.669	<0.0001	256	0.549	248	<0.00005	<0.025	<0.025	0.00675	<0.025	<0.025	<0.0005	1.9
RSEM-L5E-P2-SP	8/28/2021 14:55	AEV125	M	C163811	0.00148	<0.01	<0.0002	0.0525	41.6	0.24	<0.0000019	0.014	0.0143		5.35	0.00813	0.655	<0.00002	302	0.479	290	0.000022	<0.005	<0.005	0.00558	<0.005	<0.005	<0.0001	2.1
RSEM-L5E-P2-SP	8/29/2021 14:50	AEV013	M	C163786	<0.0025	<0.05	<0.001	0.055	43.2	0.229	<0.0000019	0.0167	0.0154		6.12	0.00945	0.78	<0.0001	299	0.525	289	<0.00005	<0.025	<0.025	0.00694	<0.025	<0.025	<0.0005	2.0
RSEM-L5E-P2-SP	8/30/2021 14:20	AEX830	M	C164176	0.00138	<0.01	<0.0002	0.0569	40.6	0.193	<0.0000019	0.0148	0.0127		5.46	0.00748	0.673	<0.00002	372	0.482	325	0.000024	<0.005	<0.005	0.00607	<0.005	<0.005	<0.0001	1.6
RSEM-L5E-P2-SP	8/31/2021 12:20	AFA834	M	C164798	0.00149	<0.01	<0.0002	0.0586	39.3	0.173	<0.0000019	0.0149	0.0118		5.24	0.00872	0.671	<0.00002	398	0.472	336	0.000024	<0.005	<0.005	0.00612	<0.005	<0.005	<0.0001	1.3
RSEM-L5E-P2-SP	9/1/2021 11:40	AFC993	M	C165103	0.00126	<0.01	<0.0002	0.0597	40.6	0.173	<0.0000019	0.0154	0.0122		5.33	0.00879	0.655	<0.00002	408	0.489	334	0.000025	<0.005	<0.005	0.00639	<0.005	<0.005	<0.0001	1.1
RSEM-L5E-P2-SP	9/2/2021 16:10	AFF609	M	C165563	0.00137	<0.01	<0.0002	0.0569	41.1	0.17	<0.0000019	0.0153	0.013		5.38	0.00915	0.664	<0.00002	394	0.506	208	0.000023	<0.005	<0.005	0.00623	<0.005	<0.005	<0.0001	1.6
RSEM-L5E-P2-SP	9/3/2021 12:10	AFF867	M	C165588	<0.0025	<0.05	<0.001	0.057	46.0	0.178	<0.0000019	0.017	0.0143		6.04	0.00962	0.67	<0.0001	369	0.534	351	<0.00005	<0.025	<0.025	0.00705	<0.025	<0.025	<0.0005	1.2
RSEM-L5E-P2-SP	9/4/2021 12:05	AFH291	M	C165785	0.0014	<0.02	<0.0004	0.0524	43.6	0.17	<0.0000019	0.0171	0.0136		5.57	0.00751	0.734	<0.00004	346	0.549	332	0.000024	<0.01	<0.01	0.00748	<0.01	<0.01	<0.0002	0.95
RSEM-L5E-P2-SP	9/21/2021 10:10	AGO666	M	C171134	0.00117	<0.01	<0.0002	0.0826	43.9	0.0053	<0.0000019	0.0215	0.0059		6.40	0.00879	0.37	<0.00002	568	0.635	437	0.000024	<0.005	<0.005	0.00877	<0.005	<0.005	<0.0001	1.4
RSEM-L5W-P2-EOP	8/25/2021 11:25	AEP244	M	C162703	0.00124	<0.01	<0.0002	0.076	36.2	<0.001	<0.0000019	0.0248	0.0043		5.87	0.0126	0.791	<0.00002	534	0.541	405	0.000027	<0.005	<0.005	0.00931	<0.005	<0.005	<0.0001	3.0
RSEM-L5W-P2-EOP	8/26/2021 15:20	AER558	M	C163145	0.00106	<0.01	<0.0002	0.0798	32.2	<0.001	<0.0000019	0.0242	0.0039		5.96	0.00884	0.756	<0.00002	600	0.59	419	0.000024	<0.005	<0.005	0.00895	<0.005	<0.005	<0.0001	2.4
RSEM-L5W-P2-EOP	8/27/2021 12:25	AER550	M	C163144	0.00109	<0.01	<0.0002	0.0813	32.4	<0.001	<0.0000019	0.0244	0.004		6.06	0.0091	0.742	<0.00002	511	0.591	434	0.000023	<0.005	<0.005	0.00904	<0.005	<0.005	<0.0001	2.3
RSEM-L5W-P2-EOP	8/28/2021 15:10	AEV126	M	C163811	0.00109	<0.01	<0.0002	0.0826	33.7	<0.001	<0.0000019	0.0216	0.0041		5.24	0.00603	0.709	<0.00002	583	0.451	390	0.000023	<0.005	<0.005	0.00802	<0.005	<0.005	<0.0001	2.9
RSEM-L5W-P2-EOP	8/29/2021 15:05	AEV014	M	C163786	0.00117	<0.01	<0.0002	0.08	33.4	<0.001	<0.0000019	0.0217	0.0043		5.32	0.00848	0.683	<0.00002	543	0.475	247	0.000022	<0.005	<0.005	0.00788	<0.005	<0.005	<0.0001	2.2
RSEM-L5W-P2-EOP	8/30/2021 14:40	AEX831	M	C164176	0.00117	<0.01	<0.0002	0.0812	32.8	<0.001	<0.0000019	0.0216	0.0044		5.91	0.00624	0.688	<0.00002	585	0.455	385	0.000021	<0.005	<0.005	0.00776	<0.005	<0.005	<0.0001	2.5
RSEM-L5W-P2-EOP	8/31/2021 12:35	AFA835	M	C164798	0.00105	<0.01	<0.0002	0.0814	33.7	<0.001	<0.0000019	0.0213	0.0045		5.72	0.00782	0.652	<0.00002	633	0.463	418	0.000025	<0.005	<0.005	0.00797	<0.005	<0.005	<0.0001	1.9

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-L5W-P2-EOP	9/1/2021 11:50	AFC994	M	C165103	0.00103	<0.01	<0.0002	0.0803	33.5	<0.001	<0.0000019	0.0211	0.0046		5.74	0.00797	0.627	<0.00002	642	0.469	420	0.000024	<0.005	<0.005	0.00805	<0.005	<0.005	<0.0001	1.7
RSEM-L5W-P2-EOP	9/2/2021 16:20	AFF610	M	C165563	0.00116	<0.01	<0.0002	0.0753	33.4	<0.001	<0.0000019	0.0216	0.0048		5.38	0.00774	0.603	<0.00002	629	0.5	242	0.000022	<0.005	<0.005	0.00772	<0.005	<0.005	0.00014	1.6
RSEM-L5W-P2-EOP	9/3/2021 12:25	AFF868	M	C165588	<0.0025	<0.05	<0.001	0.085	36.6	<0.005	<0.0000019	0.0229	0.0055		5.60	0.00887	0.661	<0.0001	549	0.485	419	<0.00005	<0.025	<0.025	0.00899	<0.025	<0.025	<0.0005	1.2
RSEM-L5W-P2-EOP	9/4/2021 12:25	AFH292	M	C165785	0.0011	<0.02	<0.0004	0.0746	35.9	<0.002	<0.0000019	0.0232	0.0055		5.70	0.00624	0.678	<0.00004	554	0.535	408	0.000029	<0.01	<0.01	0.00935	<0.01	<0.01	<0.0002	1.1
RSEM-L5W-P2-EOP	9/5/2021 11:15	AFI823	M	C166081	0.00112	<0.01	<0.0002	0.0755	33.8	0.0012	<0.0000019	0.0213	0.0051		5.47	0.00853	0.558	<0.00002	630	0.51	249	0.000024	<0.005	<0.005	0.00773	<0.005	<0.005	0.00013	1.2
RSEM-L5W-P2-EOP	9/6/2021 10:20	AFI722	M	C166063	0.00096	<0.01	<0.0002	0.0787	36.6	0.0017	<0.0000019	0.0176	0.0056		6.20	0.00725	0.528	<0.00002	579	0.509	398	0.000027	<0.005	<0.005	0.00798	<0.005	<0.005	<0.0001	1.6
RSEM-L5W-P2-SP	4/28/2021 16:00	ZS0318	M	C128230	0.00158	<0.01	<0.0002	0.0293	22.8	<0.001	<0.0000019	0.0195	0.0032		3.74	0.0187	1.99	<0.00002	227	0.326	211	0.000013	<0.005	<0.005	0.00503	<0.005	<0.005	<0.0001	5.2
RSEM-L5W-P2-SP	5/20/2021 14:55	ZV5702	M	C134406	0.00103	<0.01	<0.0002	0.0775	21.8	<0.001	<0.0000019	0.0305	0.0048		4.69	0.013	1.88	<0.00002	448	0.449	345	0.000014	<0.005	<0.005	0.00769	<0.005	<0.005	<0.0001	7.9
RSEM-L5W-P2-SP	5/29/2021 13:00	ZW9130	M	C136816	0.0013	<0.02	<0.0004	0.0673	25.9	<0.002	<0.0000019	0.0269	0.0046		5.03	0.0118	1.64	<0.00004	428	0.43	325	<0.00002	<0.01	<0.01	0.00769	<0.01	<0.01	<0.0002	7.6
RSEM-L5W-P2-SP	6/5/2021 15:40	ZY0225	M	C138844	0.0014	<0.02	<0.0004	0.0771	24.9	<0.002	<0.0000019	0.0311	0.0049		5.01	0.0116	1.67	<0.00004	508	0.451	357	<0.00002	<0.01	<0.01	0.00859	<0.01	<0.01	<0.0002	6.0
RSEM-L5W-P2-SP	6/10/2021 10:40	ZY8801	M	C140527	0.0012	<0.02	<0.0004	0.073	21.5	0.002	<0.0000019	0.0322	0.0049		4.65	0.0116	1.63	<0.00004	495	0.433	349	<0.00002	<0.01	<0.01	0.00776	<0.01	<0.01	<0.0002	0.38
RSEM-L5W-P2-SP	6/14/2021 10:00	ZZ2011	M	C141059	0.0017	<0.02	<0.0004	0.0815	22.4	0.0023	<0.0000019	0.0323	0.0048		4.74	0.0105	1.64	<0.00004	533	0.458	372	<0.00002	<0.01	<0.01	0.00788	<0.01	<0.01	<0.0002	3.6
RSEM-L5W-P2-SP	6/20/2021 12:20	AAF492	M	C143330	0.00123	<0.01	<0.0002	0.0818	23.7	0.0022	<0.0000019	0.0278	0.0048		4.83	0.0108	1.51	<0.00002	586	0.381	328	0.000014	<0.005	<0.005	0.00762	<0.005	<0.005	0.00014	2.9
RSEM-L5W-P2-SP	6/23/2021 11:55	AAO117	M	C144722	0.00122	0.024	<0.0002	0.105	25.0	0.0029	<0.0000019	0.0328	0.0052		5.03	0.0127	1.72	<0.00002	567	0.418	472	0.000022	<0.005	<0.005	0.00911	<0.005	<0.005	0.00014	8.0
RSEM-L5W-P2-SP	6/25/2021 11:35	AAP485	M	C144894	0.0015	0.024	<0.0002	0.102	25.3	0.0022	<0.0000019	0.0326	0.0051		5.19	0.0118	1.7	<0.00002	567	0.422	498	0.000024	<0.005	<0.005	0.00914	<0.005	<0.005	0.00015	6.7
RSEM-L5W-P2-SP	6/26/2021 13:40	AAU430	M	C145599	0.00135	<0.01	<0.0002	0.0971	26.1	0.0017	0.0000048	0.0327	0.0048		5.40	0.0102	1.62	<0.00002	531	0.436	584	0.000022	<0.005	<0.005	0.00923	<0.005	<0.005	<0.0001	5.6
RSEM-L5W-P2-SP	6/28/2021 10:55	AAX134	M	C146134	0.00165	<0.01	<0.0002	0.0895	28.1	<0.001	<0.0000019	0.0332	0.0047		5.60	0.0119	1.66	<0.00002	537	0.455	461	0.000025	<0.005	<0.005	0.00959	<0.005	<0.005	<0.0001	2.8
RSEM-L5W-P2-SP	6/29/2021 11:55	AAZ025	M	C146532	0.00133	0.021	<0.0002	0.0888	24.5	0.0016	<0.0000019	0.0314	0.0042		5.03	0.00999	1.78	<0.00002	479	0.47	365	0.000022	<0.005	<0.005	0.00852	<0.005	<0.005	<0.0001	3.2
RSEM-L5W-P2-SP	6/30/2021 0:50	AAZ006	M	C146528	0.00155	0.033	<0.0002	0.0543	32.8	0.0037	<0.0000019	0.021	0.0027		5.42	0.00877	1.43	<0.00002	323	0.458	271	0.000023	<0.005	<0.005	0.00683	<0.005	<0.005	<0.0001	1.2
RSEM-L5W-P2-SP	7/1/2021 12:30	ABB248	M	C146903	0.00146	0.039	<0.0002	0.0645	31.5	0.0033	<0.0000019	0.0229	0.0028		5.44	0.00887	1.55	<0.00002	350	0.491	296	0.000023	<0.005	<0.005	0.00737	<0.005	<0.005	0.00013	3.3
RSEM-L5W-P2-SP	7/3/2021 14:05	ABE027	M	C147272	0.00169	0.085	<0.0002	0.0811	31.9	0.0079	0.0000021	0.0278	0.0042		5.48	0.00914	1.74	<0.00002	473	0.443	341	<0.00001	<0.005	<0.005	0.00864	<0.005	<0.005	0.00011	3.4
RSEM-L5W-P2-SP	7/4/2021 10:15	ABD989	M	C147267	0.00171	0.133	<0.0002	0.0975	31.4	0.0102	<0.0000019	0.0295	0.005		5.60	0.00863	2.04	<0.00002	500	0.469	368	<0.00001	<0.005	<0.005	0.00894	<0.005	<0.005	<0.0001	4.5
RSEM-L5W-P2-SP	7/5/2021 11:55	ABG203	M	C147674	0.00171	0.152	<0.0002	0.0969	28.4	0.0143	<0.0000019	0.0305	0.0062		5.23	0.0089	1.99	0.000023	540	0.445	373	<0.00001	<0.005	<0.005	0.00909	<0.005	0.0066	<0.0001	7.2
RSEM-L5W-P2-SP	7/6/2021 15:00	ABJ182	M	C148228	0.0009	0.06	<0.0002	0.0893	25.5	0.0037	<0.0000019	0.0312	0.0039		5.37	0.0094	2.1	<0.00002	505	0.546	384	0.000025	<0.005	<0.005	0.00911	<0.005	<0.005	0.0003	4.5
RSEM-L5W-P2-SP	7/7/2021 16:00	ABK536	M	C148516	0.00092	0.06	<0.0002	0.0818	26.3	0.0033	<0.0000019	0.0305	0.0037		5.48	0.00969	1.97	<0.00002	536	0.56	401	0.000028	<0.005	<0.005	0.00877	<0.005	<0.005	0.00027	3.7
RSEM-L5W-P2-SP	7/8/2021 17:20	ABM766	M	C148925	0.00091	0.04	<0.0002	0.0727	28.4	<0.001	<0.0000019	0.0277	0.003		5.55	0.00922	1.71	<0.00002	491	0.559	346	0.000024	<0.005	<0.005	0.0083	<0.005	<0.005	0.00018	2.4
RSEM-L5W-P2-SP	7/9/2021 12:00	ABM749	M	C148923	0.00099	0.036	<0.0002	0.0633	31.7	<0.001	<0.0000019	0.0243	0.0024		5.75	0.00951	1.45	<0.00002	441	0.566	326	0.000027	<0.005	<0.005	0.00784	<0.005	<0.005	0.00015	2.6
RSEM-L5W-P2-SP	7/10/2021 14:30	ABP530	M	C149429	0.00094	0.065	<0.0002	0.0775	27.3	0.002	<0.0000019	0.0286	0.0033		5.50	0.00943	1.86	<0.00002	533	0.563	364	0.000028	<0.005	<0.005	0.00854	<0.005	<0.005	0.00021	2.2
RSEM-L5W-P2-SP	7/11/2021 12:30	ABP676	M	C149459	0.00104	0.069	<0.0002	0.069	30.8	0.0022	<0.0000019	0.0264	0.0027		5.74	0.0093	1.63	<0.00002	453	0.567	327	0.000025	<0.005	<0.005	0.0083	<0.005	<0.005	0.00027	2.1
RSEM-L5W-P2-SP	7/13/2021 11:10	ABU093	M	C150243	0.00094	0.058	<0.0002	0.0781	31.1	0.0018	<0.0000019	0.0286	0.003		5.81	0.00944	1.64	<0.00002	508	0.571	426	0.000027	<0.005	<0.005	0.00859	<0.005	<0.005	0.00024	3.0
RSEM-L5W-P2-SP	7/15/2021 12:40	ABY390	M	C150960	0.00091	0.041	<0.0002	0.0738	28.1	0.0014	<0.0000019	0.0273	0.0029		5.62	0.00871	1.4	<0.00002	500	0.574	365	0.000026	<0.005	<0.005	0.00969	<0.005	<0.005	0.00028	2.3
RSEM-L5W-P2-SP	7/17/2021 12:35	ACC245	M	C151542	0.00097	0.031	<0.0002	0.0642	30.7	0.0014	<0.0000019	0.0249	0.0015		5.67	0.00869	1.19	<0.00002	415	0.56	397	0.000024	<0.005	<0.005	0.00935	<0.005	<0.005	<0.0001	2.1
RSEM-L5W-P2-SP	7/19/2021 12:05	ACF041	M	C151946	0.00101	0.054	<0.0002	0.0646	29.1	0.0014	<0.0000019	0.026	0.0025		5.57	0.0088	1.37	<0.00002	507	0.555	359	0.000027	<0.005	<0.005	0.00917	<0.005	<0.005	0.00023	2.1
RSEM-L5W-P2-SP	7/21/2021 11:30	ACH931	M	C152481	0.0011	<0.01	<0.0002	0.0717	33.6	<0.001	<0.0000019	0.0222	0.0029		6.18	0.00565	0.992	<0.00002	431	0.451	369	0.000028	<0.005	<0.005	0.00843	<0.005	<0.005	<0.0001	3.1
RSEM-L5W-P2-SP	7/23/2021 12:40	ACL704	M	C153012	0.00112	0.021	<0.0002	0.0635	31.8	0.0012	<0.0000019	0.0186	0.002		5.37	0.00822	1.06	<0.00002	398	0.416	278	0.000023	<0.005	<0.005	0.00734	<0.005	<0.005	<0.0001	4.8
RSEM-L5W-P2-SP	7/24/2021 10:45	ACO403	M	C153513	0.00114	0.059	<0.0002	0.0674	30.3	0.0032	<0.0000019	0.0222	0.0029		5.30	0.00771	1.23	<0.00002	523	0.452	370	0.000025	<0.005	<0.005	0.00818	<0.005	<0.005	0.00021	5.9
RSEM-L5W-P2-SP	7/25/2021 11:10	ACO186	M	C153467	0.00126	0.047	<0.0002	0.0616	34.0	0.0027	<0.0000019	0.0217	0.0027		5.40	0.00806	1.18	<0.00002	465	0.456	345	0.000021	<0.005	<0.005	0.00787	<0.005	<0.005	0.00031	3.4
RSEM-L5W-P2-SP	7/26/2021 11:45	ACN523	M	C153324		0.048	<0.0002	0.0646	29.9		<0.0000019	0.0216	0.003		5.26			<0.00002	529	0.46	383	0.000027	<0.005	<0.005	0.00792	<0.005	<0.005	0.0002	2.7
RSEM-L5W-P2-SP	7/27/2021 16:00	ACT049	M	C154246	0.00116	<0.01	<0.0002	0.0673	32.0	<0.001	0.0000028	0.0193	0.0026		5.56	0.00815	1.01	<0.00002	552	0.412	398	0.000025	<0.005	<0.005	0.00775	<0.005	<0.005	0.00012	2.6
RSEM-L5W-P2-SP	7/28/2021 16:20	ACV593	M	C154699	0.00113	<0.01	<0.0002	0.066	32.2	<0.001	<0.0000019	0.0238	0.0027		5.55	0.00944	0.998	<0.00002	445	0.538	347	0.000024	<0.005	<0.005	0.00816	<0.005	<0.005	<0.0001	2.7
RSEM-L5W-P2-SP	7/30/2021 12:00	ACY657	M	C155288	<0.0025	<0.05	<0.001	0.08	36.6	<0.005	<0.0000019	0.0242	<0.005		5.80	0.0105	1.03	<0.0001	519	0.49	363	<0.00005	<0.025	<0.025	0.00866	<0.025	<0.025	<0.0005	3.7
RSEM-L5W-P2-SP	8/1/2021 14:30	ADC695	M	C155924	<0.0025	<0.05	<0.001	0.076	33.9	<0.005	<0.0000019	0.0234	<0.005		5.44	0.0103	0.954	<0.0001	496	0.458	363	<0.00005	<0.025	<0.025	0.00837	<0.025	<0.025	<0.0005	1.4
RSEM-L5W-P2-SP	8/5/2021 15:50	ADK139	M	C157133	<0.0025	<0.05	<0.001	0.082	34.5	<0.005	<0.0000019	0.024	<0.005		5.65	0.00615	0.914	<0.0001	508	0.51	371	<0.00005	<0.025	<0.025	0.00863	<0.025	<0.025	<0.0005	1.1
RSEM-L5W-P2-SP	8/6/2021 10:50	ADK126	M	C157131	<0.0025	<0.05	<0.001	0.078	36.2	<0.005	<0.0000019	0.0245	<0.005		5.55	0.00606	0.85	<0.0001	521	0.526	372	<0.00005	<0.025	<0.025	0.00884	<0.025	<0.025	<0.0005	3.7
RSEM-L5W-P2-SP	8/7/2021 16:40	ADM461	M	C157545	<0.0025	<0.05	<0.001	0.069	32.2	<0.005	<0.0000019	0.0242	<0.005		5.41	0.00616	0.855	<0.0001	481	0.424	431	<0.00005	<0.025	<0.025	0.00788	<0.025	<0.025	<0.0005	2.6
RSEM-L5W-P2-SP	8/8/2021 10:55	ADN231	M	C157651	<0.0025	<0.05	<0.001	0.072	34.2	<0.005	<0.0000019	0.0245	<0.005		5.51	0.00624	0.777	<0.0001	505	0.441	442	<0.00005	<0.025	<0.025	0.00814	<0.025	<0.025	<0.0005	2.6
RSEM-L5W-P2-SP	8/9/2021 10:30	ADM371	M	C157523	0.00119	<0.01	<0.0002	0.0804	34.5	<0.001	0.0000022	0.0263	0.0041		5.84	0.00863	0.885	<0.00002	564	0.554	409	0.000026	<0.005	<0.005	0.009	<0.005	<0.005	<0.0001	2.2
RSEM-L5W-P2-SP	8/10/2021 15:50	ADP903	M	C158211	<0.0025	<0.05	<0.001	0.077	35.1	<0.005	<0.0000019	0.025	<0.005		5.49	0.0064	0.723	<0.0001	521	0.454	461	<0.00005	<0.025	<0.025	0.00854	<0.025	<0.025	<0.0005	2.5
RSEM-L5W-P2-SP	8/12/2021 15:50	ADU542	M	C159104	<0.0025	<0.05	<0.001	0.088	39.5	<0.005	<0.0000019	0.0261	<0.005		6.29	0.00625	0.88	<0.0001	626	0.522	421	<0.00005	<0.025	<0.025	0.0092	<0.025	<0.025	<0.0005	2.1
RSEM-L5W-P2-SP	8/14/2021 15:50	ADW204	M	C159435	0.00131	<0.01	<0.0002	0.0949	36.8	<0.001	<0.0000019	0.0281	0.0042		6.44	0.00829	0.812	<0.00002	516	0.613	367	0.000028	<0.005	<0.005	0.0098	<0.005	<0.005	<0.0001	1.6
RSEM-L5W-P2-SP	8/16/2021 15:50	ADY266	M	C159861	0.00142	<0.01	<0.0002	0.0817	37.2	<0.001	<0.0000019	0.0263	0.0046		6.05	0.0116	0.705	<0.00002	591	0.546	455	0.000025	<0.005	<0.005	0.00918	<0.005	<0.005	<0.0001	1.7
RSEM-L5W-P2-SP	8/18/2021 15:40	AED520	M	C160793	0.00135	<0.01	<0.0002	0.0812	36.1	<0.001	<0.0000019	0.0264	0.0044		6.08	0.0086	0.645	<0.00002	525	0.529	435	0.000027	<0.005	<0.005	0.00912	<0.005	<0.005	<0.0001	1.3
RSEM-L5W-P2-SP	8/20/2021 12:40	AEF526	M	C161059	0.00145	<0.01	<0.0002	0.0876	38.6	<0.001	<0.0000019	0.0274	0.0049		6.56	0.0107	0.641	<0.00002	504	0.568	420	0.000028	<0.005	<0.005	0.00965	<0.005	<0.005	<0.0001	1.6
RSEM-L5W-P2-SP	8/21/2021 16:40	AEI352	M	C161420	0.00144	<0.01	<0.0002	0.0846	37.9	<0.001	<0.0000019	0.0268	0.0048		6.36	0.0111	0.618	<0.00002	548	0.547	459	0.000026	<0.005	<0.005	0.00913	<0.005	<0.005	<0.0001	1.4
RSEM-L5W-P2-SP	8/22/2021 10:00	AEI414	M	C161433	0.00128	<0.01	<0.0002	0.0779	37.8	<0.001	<0.0000019	0.0257	0.0044		6.17	0.0104	0.625	<0.00002	531	0.53	432	0.000026	<0.005	<0.005	0.00876	<0.005	<0.005	<0.0001	3.5
RSEM-L5W-P2-SP	8/23/2021 13:30	AEL594	M	C161925	<0.0025	<0.05	<0.001	0.078	41.4	<0.005	<0.0000019	0.0241	<0.005		6.44	0.0111	0.697	<0.0001	548	0.564	425	<0.00005	<0.025	<0.025	0.00869	<0.025	<0.025	<0.0005	3.6
RSEM-L5W-P2-SP	8/24/2021 13:45	AEN134	M	C162291	0.00124	<0.01	<0.0002	0.0839	35.4	<0.001	<0.0000019	0.0253	0.0041		5.75	0.0108	0.734	<0.00002	506	0.517	387	0.000026	<0.005	<0.005	0.00927	<0.005	<0.005	<0.0001	3.3
RSEM-L5W-P2-SP	9/7/2021 16:00	AFL348	M	C166557	0.00128	<0.005	<0.0002	0.0789	33.9	<0.001	<0.0000019	0.0168	0.0054		5.92	0.00665	0.484	<0.00002	536	0.493	228	0.000022	<0.005	<0.005	0.00761	<0.005	<0.005	<0.0001	1.5
RSEM-L5W-P2-SP	9/8/2021 16:00	AFO060	M	C167059	<0.0025	<0.05	<0.001	0.088	39.4	<0.005	<0.0000019	0.0234	0.0059		6.21	0.00918	0.524	<0.0001	596	0.505	439	<0.00005	<0.025	<0.025	0.00876	<0.025	<0.025	<0.0005	1.2
RSEM-L5W-P2-SP	9/9/2021 15:50	AFQ848	M	C167445	<0.0025	<0.05	<0.001	0.085	38.0	<0.005	<0.0000019	0.0217	0.006		6.41	0.00757	0.567	<0.0001	562	0.548	377	<0.00005	<0.025	<0.025	0.00824	<0.025	<0.025	<0.0005	1.4
RSEM-L5W-P2-SP	9/10/2021 12:00	AFQ884	M	C167449	<0.0025	<0.05	<0.001	0.081	37.2	<0.005	<0.0000019	0.0202	0.0056		6.24	0.00811	0.518	<0.0001	554	0.53	372	<0.00005	<0.025	<0.025	0.00777	<0.025	<0.025	<0.0005	1.2
RSEM-L5W-P2-SP	9/11/2021 15:30	AFV356	M	C168029	<0.0025	<0.05	<0.001	0.088	37.2	<0.005	<0.0000019	0.0216	0.0057		6.40	0.00914	<0.5	<0.0001	559	0.557	370	<0.00005	<0.025	<0.025	0.00833	<0.025	<0.025	<0.0005	0.94
RSEM-L5W-P2-SP	9/15/2021 15:10	AGD168	M	C169361	<0.0025	<0.05	<0.001	0.092	45.7	<0.005	<0.0000019	0.0227	0.0057		6.35	0.00669	<0.5	<0.0001	618	0.569	465	<0.00005	<0.025	<0.025	0.00966	<0.025	<0.025	<0.0005	1.7
RSEM-L6-EOP	4/30/2021 7:00	ZS2246	M	C128573	0.0007	<0.01	<0.0002	0.0138	19.6	<0.001	<0.0000019	0.0059	0.0021		3.23	0.00106	0.331	<0.00002	60.9	0.311	80.4	<0.00001	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001	46
RSEM-L6-SP	4/14/2021 13:00	ZP9472	M	C124397	0.00082	<0.01	<0.0002	0.0079	11.8	0.063	<0.0000019	0.0051	0.0022		2.59	0.00088	1.28	<0.00002	42.2	0.231	50.7	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	1.5
RSEM-L6-SP	4/29/2021 16:00	ZS2245	M	C128573	0.00056	<0.01	<0.0002	0.0078	16.5	0.0024	0.0000021	0.0035	0.0014		2.11	0.00064	1.71	<0.00002	31.0	0.224	46.0	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	24
RSEM-L6-SP	8/25/2021 17:10	AEP248	M	C162703	0.00151	<0.01	<0.0002	0.0205	34.4	0.0133	<0.0000019	0.0085	0.0016		4.62	0.0037	0.866	<0.00002	62.6	0.655	138	<0.00001	<0.005	<0.005	0.00195	<0.005	<0.005	<0.0001	3.2
RSEM-L6-SP	8/26/2021 17:00	AER560	M	C163145	0.00148	<0.01	<0.0002	0.0266	33.0	0.0086	<0.0000019	0.0087	0.0015		4.84	0.00273	0.837	<0.00002	59.7	0.638	126	0.00001	<0.005	<0.005	0.00205	<0.005	<0.005	<0.0001	8.6
RSEM-L6-SP	8/27/2021 9:45	AER551	M	C163144	0.00135	<0.01	<0.0002	0.0218	32.1	0.009	<0.0000019	0.0087	0.0015		4.75	0.00262	0.756	<0.00002	58.4	0.682	122	<0.00001	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001	1.2

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-L6-SP	10/27/2021 15:50	AJH727	M	C182990	0.00105	<0.01	<0.0002	0.0241	38.9	0.0022	<0.0000019	0.0092	0.0017		4.79	0.00179	<0.1	<0.00002	71.2	0.734	154	<0.00001	<0.005	<0.005	0.00228	<0.005	<0.005	<0.0001	1.1
RSEM-L6-SP	11/9/2021 12:30	AKJ864	M	C187047	0.00128	<0.01	<0.0002	0.0264	36.8	0.0045	<0.0000019	0.0082	0.0017		5.12	0.00218	<0.1	<0.00002	65.4	0.709	107	<0.00001	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001	6.3
RSEM-R5A-P2-A-SP	5/5/2021 14:40	ZT3124	M	C130491	<0.0005	<0.01	<0.0002	0.0079	13.2	<0.001	0.0000021	0.0189	<0.001		2.90	0.0104	2.6	<0.00002	53.5	0.189	64.1	<0.00001	<0.005	<0.005	0.00324	<0.005	<0.005	<0.0001	4.7
RSEM-R5A-P2-B-SP	5/5/2021 15:00	ZT3125	M	C130491	0.00063	<0.01	<0.0002	0.0098	10.8	<0.001	<0.0000019	0.0233	0.001		3.17	0.0115	1.86	<0.00002	61.7	0.211	63.9	0.000013	<0.005	<0.005	0.00399	<0.005	<0.005	<0.0001	14
RSEM-R5A-P2-C-SP	5/14/2021 11:50	ZU4953	M	C132327	0.00075	<0.01	<0.0002	0.0113	10.9	0.0049	<0.0000019	0.0248	0.0014		3.40	0.0106	2.12	<0.00002	70.5	0.22	67.8	0.000016	<0.005	<0.005	0.00441	<0.005	<0.005	<0.0001	52
RSEM-R5A-P2-C-SP	5/19/2021 15:15	ZV3577	M	C134016	0.00063	<0.01	<0.0002	0.0104	11.2	<0.001	<0.0000019	0.0253	0.0011		3.43	0.0106	1.93	<0.00002	72.5	0.212	68.5	<0.00001	<0.005	<0.005	0.0043	<0.005	<0.005	<0.0001	19
RSEM-R5A-P2-D-SP	5/14/2021 12:05	ZU4954	M	C132327	0.00062	<0.01	<0.0002	0.0101	11.0	<0.001	<0.0000019	0.0231	<0.001		3.18	0.0117	2.05	<0.00002	63.2	0.2	66.0	<0.00001	<0.005	<0.005	0.00394	<0.005	<0.005	<0.0001	5.9
RSEM-R5A-P2-D-SP	5/19/2021 15:25	ZV3578	M	C134016	0.00057	<0.01	<0.0002	0.0091	10.9	<0.001	<0.0000019	0.023	<0.001		3.07	0.011	1.24	<0.00002	63.1	0.19	64.3	<0.00001	<0.005	<0.005	0.00376	<0.005	<0.005	<0.0001	9.3
RSEM-R5A-P2-D-SP	8/26/2021 13:30	AER556	M	C163145	0.00105	<0.01	<0.0002	0.0417	25.9	0.0247	<0.0000019	0.0137	0.0095		5.98	0.0239	1.64	<0.00002	172	0.5	221	0.000024	<0.005	<0.005	0.0033	<0.005	<0.005	<0.0001	8.6
RSEM-R5B-P2-Sump	5/2/2021 15:05	ZS6050	M	C129102	<0.0005	<0.01	<0.0002	0.0284	34.1	0.0012	<0.0000019	0.0046	0.0062		3.65	0.0283	3.26	<0.00002	47.0	0.397	64.5	0.000012	<0.005	<0.005	0.00664	<0.005	<0.005	<0.0001	7.4
RSEM-R5B-P2-Sump	5/12/2021 12:30	ZU2126	M	C131927	<0.0005	<0.01	<0.0002	0.0249	38.0	<0.001	<0.0000019	0.0047	0.0057		4.09	0.0253	3.15	<0.00002	50.0	0.4	68.2	0.000012	<0.005	<0.005	0.00659	<0.005	<0.005	<0.0001	5.7
RSEM-R5B-P2-Sump	5/18/2021 12:30	ZV2800	M	C133850	<0.0005	<0.01	<0.0002	0.0252	35.7	<0.001	<0.0000019	0.0042	0.0047		3.69	0.0205	2.36	<0.00002	46.1	0.374	60.7	0.000011	<0.005	<0.005	0.00608	<0.005	<0.005	<0.0001	5.0
RSEM-R5B-P2-Sump	6/2/2021 14:30	ZX5272	M	C138096	0.00078	<0.01	<0.0002	0.0298	36.6	0.0012	<0.0000019	0.0044	0.004		4.27	0.0148	1.87	<0.00002	53.5	0.447	70.7	0.000015	<0.005	<0.005	0.00617	<0.005	<0.005	<0.0001	11
RSEM-R5B-P2-Sump	6/10/2021 13:30	ZY8802	M	C140527	0.00097	<0.01	<0.0002	0.0329	39.8	0.0014	<0.0000019	0.0051	0.0048		4.14	0.0126	1.67	<0.00002	60.2	0.452	73.8	0.000015	<0.005	<0.005	0.00656	<0.005	<0.005	<0.0001	12
RSEM-R5B-P2-Sump	6/23/2021 13:15	AAO118	M	C144722	0.0009	<0.01	<0.0002	0.0386	36.7	<0.001	<0.0000019	0.0052	0.0037		3.96	0.0171	1.32	<0.00002	59.9	0.413	55.4	0.000017	<0.005	<0.005	0.00589	<0.005	<0.005	<0.0001	11
RSEM-R5B-P2-Sump	7/11/2021 13:30	ABP677	M	C149459	0.00063	0.033	<0.0002	0.0432	46.8	0.006	0.0000021	0.0073	0.0015		5.71	0.0116	3.76	<0.00002	65.2	0.613	88.3	0.000019	<0.005	<0.005	0.00634	<0.005	<0.005	0.00019	3.0
RSEM-R5B-P2-Sump	7/15/2021 13:50	ABY391	M	C150960	0.00072	0.019	<0.0002	0.0434	44.4	<0.001	<0.0000019	0.0076	0.0014		5.89	0.00946	3.3	<0.00002	61.7	0.616	92.9	0.000021	<0.005	<0.005	0.00737	<0.005	<0.005	0.00012	3.1
RSEM-R5B-P2-Sump	7/22/2021 13:25	ACL551	M	C152988	0.00075	0.028	<0.0002	0.0499	41.5	0.0032	<0.0000019	0.0054	0.0053		5.44	0.00857	2.56	<0.00002	76.4	0.482	74.3	0.000016	<0.005	<0.005	0.00543	<0.005	<0.005	<0.0001	40
RSEM-R5B-P2-Sump	7/28/2021 15:00	ACV591	M	C154699	0.00066	<0.01	<0.0002	0.0441	46.3	<0.001	<0.0000019	0.006	0.0034		5.24	0.0142	2.09	<0.00002	73.3	0.554	97.7	0.000019	<0.005	<0.005	0.00579	<0.005	<0.005	<0.0001	7.3
RSEM-R5B-P2-Sump	8/12/2021 14:30	ADU543	M	C159104	0.00073	<0.01	<0.0002	0.0573	52.7	<0.001	<0.0000019	0.0063	0.0048		6.33	0.00427	1.74	<0.00002	82.8	0.851	109	0.000025	<0.005	<0.005	0.00599	<0.005	0.0159	<0.0001	3.8
RSEM-R5B-P2-Sump	8/18/2021 14:30	AED524	M	C160793	0.00079	<0.01	<0.0002	0.049	52.4	0.0012	<0.0000019	0.0057	0.0038		5.98	0.0109	1.6	<0.00002	77.6	0.775	101	0.000023	<0.005	<0.005	0.00539	<0.005	<0.005	<0.0001	3.2
RSEM-R5B-P2-Sump	8/25/2021 12:50	AEP245	M	C162703	0.00143	<0.01	<0.0002	0.0632	52.7	0.195	<0.0000019	0.0051	0.043		5.83	0.0115	1.52	<0.00002	83.9	0.917	133	0.000024	<0.005	<0.005	0.00582	<0.005	0.0129	<0.0001	2.3
RSEM-R5B-P2-Sump	9/1/2021 12:55	AFC996	M	C165103	0.00091	<0.01	<0.0002	0.062	48.0	0.0619	<0.0000019	0.0043	0.0182		5.13	0.00587	1.09	<0.00002	73.8	0.818	99.9	0.00002	<0.005	<0.005	0.005	<0.005	<0.005	<0.0001	5.3
RSEM-R5B-P2-Sump	9/8/2021 14:00	AFO064	M	C167059	0.00098	<0.01	<0.0002	0.0577	51.8	0.0106	<0.0000019	0.0043	0.0095		5.63	0.00255	0.973	<0.00002	73.0	0.845	100	0.000011	<0.005	<0.005	0.00489	<0.005	<0.005	<0.0001	3.0
RSEM-R5B-P2-Sump	9/14/2021 14:05	AGB020	M	C169017	0.00097	<0.005	<0.0002	0.0541	51.4	0.0036	<0.0000019	0.0044	0.0063		5.53	0.00849	0.545	<0.00002	70.6	0.833	118	0.000017	<0.005	<0.005	0.00525	<0.005	<0.005	<0.0001	5.5
RSEM-R5B-P2-Sump	9/23/2021 14:35	AGT569	M	C171954	0.00083	<0.01	<0.0002	0.0494	50.9	<0.001	<0.0000019	0.0038	0.004		4.93	0.00244	0.727	<0.00002	63.5	0.623	97.6	0.000011	<0.005	<0.005	0.00478	<0.005	<0.005	<0.0001	11
RSEM-R5B-P2-Sump	10/7/2021 12:40	AHU814	M	C176559	0.00077	<0.01	<0.0002	0.0301	40.6	<0.001	<0.0000019	0.0032	0.0033		4.40	0.00176	0.922	<0.00002	46.9	0.532	66.1	0.000012	<0.005	<0.005	0.00441	<0.005	<0.005	<0.0001	15
RSEM-R5B-P2-Sump	10/14/2021 12:35	AIG811	M	C178651	0.00062	<0.01	<0.0002	0.0365	44.5	<0.001	<0.0000019	0.0028	0.0029		3.88	0.00517	1.24	<0.00002	44.9	0.468	46.8	0.000011	<0.005	<0.005	0.00433	<0.005	<0.005	<0.0001	6.3
RSEM-R5B-P2-Sump	10/20/2021 16:20	AIT539	M	C180689	<0.0005	<0.01	<0.0002	0.0325	42.7	<0.001	<0.0000019	0.0037	0.0026		3.67	0.00252	2.18	<0.00002	40.3	0.461	56.9	0.000011	<0.005	<0.005	0.00422	<0.005	<0.005	<0.0001	6.3
RSEM-R5B-P2-Sump	10/27/2021 11:10	AJH726	M	C182990	0.00061	<0.01	<0.0002	0.0281	40.7	<0.001	0.0000019	0.0034	0.0026		3.79	0.00261	1.44	<0.00002	40.5	0.481	60.7	0.000012	<0.005	<0.005	0.00428	<0.005	<0.005	<0.0001	5.8
RSEM-R5B-P2-Sump	11/2/2021 11:35	AJU791	M	C184881	<0.0005	<0.01	<0.0002	0.0308	43.9	0.0269	<0.0000019	0.0031	0.004		3.73	0.0065	2.84	<0.00002	39.7	0.442	39.3	0.00001	<0.005	<0.005	0.00403	<0.005	<0.005	<0.0001	160
RSEM-R5B-P2-Sump	11/14/2021 14:00	AKS794	M	C188243	<0.0005	<0.01	<0.0002	0.0278	39.2	0.0205	<0.0000019	0.0035	0.0069		4.00	0.00424	3.8	<0.00002	39.0	0.437	59.3	0.000014	<0.005	<0.005	0.00556	<0.005	<0.005	<0.0001	110
RSEM-R5B-P2-Sump	11/16/2021 11:20	AKV422	M	C188704	<0.0005	<0.01	<0.0002	0.0292	40.8	0.0239	<0.0000019	0.0029	0.0064		4.12	0.00367	3.72	<0.00002	39.2	0.438	48.5	0.000013	<0.005	<0.005	0.0053	<0.005	<0.005	<0.0001	74
RSEM-R6E-EOP	1/1/2021 15:00	ZC6627	M	C100093	0.00077	<0.01	<0.0002	0.0179	25.8	0.0493	<0.0000019	0.0049	0.0086		3.46	0.00123	4.39	<0.00002	45.2	0.42	44.6	<0.00001	<0.005	<0.005	0.00207	<0.005	0.0077	<0.0001	0.88
RSEM-R6E-EOP	1/2/2021 16:05	ZC7219	M	C100230	0.00068	<0.01	<0.0002	0.0187	24.5	0.0475	<0.0000019	0.0044	0.0082		3.36	0.00122	4.31	<0.00002	44.3	0.406	44.4	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0073	<0.0001	1.4
RSEM-R6E-EOP	1/3/2021 8:45	ZC7222	M	C100232	0.00067	<0.01	<0.0002	0.0185	24.8	0.0464	<0.0000019	0.0044	0.008		3.30	0.0012	4.39	<0.00002	43.5	0.416	44.3	<0.00001	<0.005	<0.005	0.00198	<0.005	0.0072	<0.0001	0.98
RSEM-R6E-EOP	1/4/2021 18:10	ZC8853	M	C100618	0.00066	<0.01	<0.0002	0.0187	24.1	0.0524	<0.0000019	0.0042	0.0078		3.36	0.00117	4.37	<0.00002	42.5	0.418	44.9	<0.00001	<0.005	<0.005	0.00194	<0.005	0.0072	<0.0001	1.1
RSEM-R6E-EOP	1/5/2021 11:35	ZC8847	M	C100616	0.00062	<0.01	<0.0002	0.0188	24.5	0.052	<0.0000019	0.0042	0.0075		3.37	0.00123	4.25	<0.00002	43.6	0.418	44.6	<0.00001	<0.005	<0.005	0.00197	<0.005	0.0071	<0.0001	0.63
RSEM-R6E-EOP	1/5/2021 11:45	ZC8848	D	C100616	0.0006	<0.01	<0.0002	0.0192	24.5	0.0523	<0.0000019	0.0043	0.0076		3.42	0.0012	4.43	<0.00002	43.7	0.417	43.5	<0.00001	<0.005	<0.005	0.00198	<0.005	0.0068	<0.0001	0.78
RSEM-R6E-EOP	1/6/2021 13:30	ZD1294	M	C101203	0.00066	<0.01	<0.0002	0.0193	25.0	0.0838	<0.0000019	0.0045	0.0072		3.41	0.00121	4.16	<0.00002	48.9	0.423	44.7	<0.00001	<0.005	<0.005	0.00209	<0.005	0.0072	<0.0001	1.2
RSEM-R6E-EOP	1/7/2021 12:50	ZD2458	M	C101487	0.0006	<0.01	<0.0002	0.0194	25.7	0.0895	<0.0000019	0.0047	0.0069		3.57	0.00115	4.42	<0.00002	50.7	0.43	45.6	<0.00001	<0.005	<0.005	0.00227	<0.005	0.007	<0.0001	0.97
RSEM-R6E-EOP	1/7/2021 13:00	ZD2459	D	C101487	0.00059	<0.01	<0.0002	0.0188	25.6	0.0901	<0.0000019	0.0047	0.007		3.51	0.00116	4.47	<0.00002	50.8	0.417	46.0	<0.00001	<0.005	<0.005	0.00227	<0.005	0.007	<0.0001	1.1
RSEM-R6E-EOP	1/8/2021 13:10	ZD2449	M	C101485	0.00077	<0.01	<0.0002	0.0191	25.4	0.0731	<0.0000019	0.0048	0.0062		3.44	0.00121	4.47	<0.00002	52.1	0.408	45.0	<0.00001	<0.005	<0.005	0.00229	<0.005	0.0069	<0.0001	1.4
RSEM-R6E-EOP	1/9/2021 14:10	ZD4126	M	C101792	0.00054	<0.01	<0.0002	0.0207	25.4	0.0783	<0.0000019	0.0046	0.0059		3.40	0.00114	4.71	<0.00002	52.4	0.398	44.1	<0.00001	<0.005	<0.005	0.00233	<0.005	0.0067	<0.0001	1.9
RSEM-R6E-EOP	1/10/2021 12:40	ZD4122	M	C101791	0.00052	<0.01	<0.0002	0.0216	25.4	0.08	<0.0000019	0.0046	0.0056		3.35	0.00112	4.7	<0.00002	53.1	0.4	43.6	<0.00001	<0.005	<0.005	0.00233	<0.005	0.0065	<0.0001	2.3
RSEM-R6E-EOP	1/10/2021 12:50	ZD4123	D	C101791	0.00053	<0.01	<0.0002	0.0208	25.6	0.0805	<0.0000019	0.0045	0.0056		3.44	0.00111	4.66	<0.00002	53.6	0.396	42.9	<0.00001	<0.005	<0.005	0.00235	<0.005	0.0066	<0.0001	1.9
RSEM-R6E-EOP	1/11/2021 14:10	ZD5674	M	C102082	0.00055	<0.01	<0.0002	0.0201	24.3	0.073	<0.0000019	0.0045	0.0052		3.18	0.00125	4.41	<0.00002	50.5	0.368	41.4	<0.00001	<0.005	<0.005	0.0022	<0.005	0.0062	<0.0001	1.8
RSEM-R6E-EOP	1/12/2021 13:00	ZD8125	M	C102522	0.0006	<0.01	<0.0002	0.019	23.4	0.0791	<0.0000019	0.0044	0.0053		3.09	0.00116	4.32	<0.00002	50.0	0.345	38.3	<0.00001	<0.005	<0.005	0.00237	<0.005	0.0064	<0.0001	1.6
RSEM-R6E-EOP	1/12/2021 13:10	ZD8126	D	C102522	0.0006	<0.01	<0.0002	0.0196	24.2	0.0823	<0.0000019	0.0043	0.0053		3.20	0.00112	4.32	<0.00002	52.7	0.347	40.0	<0.00001	<0.005	<0.005	0.00233	<0.005	0.0065	<0.0001	1.7
RSEM-R6E-EOP	1/13/2021 13:40	ZD9241	M	C102779	0.00054	<0.01	<0.0002	0.0204	25.3	0.076	<0.0000019	0.0044	0.0049		3.10	0.00111	4.67	<0.00002	51.2	0.362	42.0	<0.00001	<0.005	<0.005	0.00236	<0.005	0.0062	<0.0001	1.6
RSEM-R6E-EOP	1/14/2021 10:10	ZD9430	M	C102840	0.00052	<0.01	<0.0002	0.0203	24.7	0.0656	<0.0000019	0.0043	0.0046		3.14	0.00106	4.67	<0.00002	50.7	0.37	40.6	<0.00001	<0.005	<0.005	0.00231	<0.005	0.0059	0.00011	1.5
RSEM-R6E-EOP	1/14/2021 10:20	ZD9432	D	C102840	0.00051	<0.01	<0.0002	0.0202	24.6	0.0646	0.0000021	0.0042	0.0046		3.11	0.00105	4.71	<0.00002	50.3	0.36	42.5	<0.00001	<0.005	<0.005	0.00234	<0.005	0.0057	<0.0001	1.5
RSEM-R6E-EOP	1/15/2021 13:05	ZE0828	M	C103125	0.00056	<0.01	<0.0002	0.0194	23.8	0.0706	<0.0000019	0.0041	0.0044		3.04	0.00107	4.56	<0.00002	49.8	0.342	39.3	<0.00001	<0.005	<0.005	0.00219	<0.005	0.0056	<0.0001	1.2
RSEM-R6E-EOP	1/16/2021 10:55	ZE2983	M	C103538	<0.0005	<0.01	<0.0002	0.0183	22.7	0.0676	<0.0000019	0.004	0.0042		2.93	0.00107	4.59	<0.00002	47.6	0.331	37.8	<0.00001	<0.005	<0.005	0.00214	<0.005	0.0056	<0.0001	1.3
RSEM-R6E-EOP	1/17/2021 13:20	ZE3021	M	C103542	0.00051	<0.01	<0.0002	0.0178	22.0	0.0634	<0.0000019	0.004	0.0038		2.87	0.00104	4.52	<0.00002	46.6	0.327	35.7	<0.00001	<0.005	<0.005	0.00217	<0.005	0.0056	<0.0001	1.2
RSEM-R6E-EOP	1/17/2021 13:30	ZE3022	D	C103542	<0.0005	<0.01	<0.0002	0.0177	22.5	0.0641	<0.0000019	0.0041	0.0039		2.87	0.001	4.5	<0.00002	47.2	0.328	37.1	<0.00001	<0.005	<0.005	0.00213	<0.005	0.0056	<0.0001	1.4
RSEM-R6E-EOP	1/18/2021 10:20	ZE2900	M	C103523	<0.0005	<0.01	<0.0002	0.0168	22.7	0.0654	<0.0000019	0.004	0.0039		2.88	0.00107	4.4	<0.00002	47.1	0.322	36.7	<0.00001	<0.005	<0.005	0.00208	<0.005	0.0055	0.00011	1.2
RSEM-R6E-EOP	1/19/2021 12:20	ZE5958	M	C104146	0.00051	<0.01	<0.0002	0.0166	22.5	0.0575	<0.0000019	0.0038	0.004		2.92	0.00095	4.54	<0.00002	46.3	0.326	36.4	<0.00001	<0.005	<0.005	0.00206	<0.005	0.0054	<0.0001	2.0
RSEM-R6E-EOP	1/20/2021 12:15	ZE6017	M	C104156	0.00054	<0.01	<0.0002	0.016	23.3	0.0595	<0.0000019	0.0039	0.0039		2.96	0.00097	4.53	<0.00002	48.2	0.325	36.4	<0.00001	<0.005	<0.005	0.00209	<0.005	0.0053	<0.0001	1.3
RSEM-R6E-EOP	1/21/2021 15:10	ZE9301	M	C104705	0.00054	<0.01	<0.0002	0.017	22.0	0.0467	<0.0000019	0.0037	0.0039		2.77	0.00089	3.91	<0.00002	46.6	0.277	33.0	<0.00001	<0.005	<0.005	0.00197	<0.005	0.0053	<0.0001	0.69
RSEM-R6E-EOP	1/21/2021 15:20	ZE9303	D	C104705	0.00054	<0.01	<0.0002	0.0172	21.6	0.0462	<0.0000019	0.0037	0.0036		2.65	0.00088	3.89	<0.00002	46.6	0.275	32.5	<0.00001	<0.005	<0.005	0.00191	<0.005	0.0054	<0.0001	0.69
RSEM-R6E-EOP	1/22/2021 13:00	ZE9298	M	C104704	0.00055	<0.01	<0.0002	0.0166	21.8	0.0428	<0.0000019	0.0038	0.0035		2.72	0.00092	3.92	<0.00002	46.2	0.282	34.8	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0052	<0.0001	0.78
RSEM-R6E-EOP	1/23/2021 15:45	ZF1596	M	C105086	0.00054	<0.01	<0.0002	0.0166	21.7	0.0412	<0.0000019	0.0037	0.0032		2.71	0.0009	4.22	<0.00002	45.7	0.294	35.1	<0.00001	<0.005	<0.005	0.00188	<0.005	0.0052	<0.0001	1.4
RSEM-R6E-EOP	1/24/2021 13:45	ZF1581	M	C105082	0.00055	<0.01	<0.0002	0.0166	22.5	0.0382	<0.0000019	0.0038	0.0033		2.77	0.00093	4.35	<0.00002	46.8	0.299	35.7	<0.00001	<0.005	<0.005	0.00194	<0.005	0.0051	<0.0001	0.85
RSEM-R6E-EOP	1/25/2021 9:50	ZF1640	M	C105090	0.00058	<0.01	<0.0002	0.0165	22.7	0.0373	<0.0000019	0.0039	0.0034		2.78	0.00093	4.29	<0.00002	47.7	0.296	35.0	<0.00001	<0.005	<0.005	0.00192	<0.005	0.0054	<0.0001	1.7
RSEM-R6E-EOP	1/26/2021 13:20	ZF4771	M	C105637	0.00065	<0.01	<0.0002	0.0167	23.0	0.0521	<0.0000019	0.0039	0.0033		2.84	0.00094	4.46	<0.00002	49.9	0.301	35.3	<0.00001	<0.005	<0.005	0.00204	<0.005	0.0056	<0.0001	1.1
RSEM-R6E-EOP	1/26/2021 13:30	ZF4772	D	C105637	0.00054	<0.01	<0.0002	0.017	22.8	0.0513	<0.0000019	0.0039	0.0033		2.87	0.00093	4.36	<0.00002	49.9	0.301	36.1	<0.00001	<0.005	<0.005	0.00202	<0.005	0.0055	<0.0001	0.99
RSEM-R6E-EOP	1/27/2021 15:30	ZF6161	M	C105925	0.00059	<0.01	<0.0002	0.0172	22.6	0.0561	<0.0000019	0.004	0.0035		2.88	0.00093	4.4	<0.00002	49.5	0.294	37.0	0.00001	<0.005	<0.005	0.00207	<0.005	0.0059	<0.0001	1.1
RSEM-R6E-EOP	1/28/2021 15:30	ZF8627	M	C106327	0.00057	<0.01	<0.0002	0.0172	21.9	0.0592	<0.0000019	0.0042	0.0035		2.93	0.00097	4.49	<0.00002	49.6	0.307	35.7	<0.00001	<0.005	<0.005	0.00203	<0.005	0.0062	<0.0001	1.1

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6E-EOP	1/28/2021 15:40	ZF8628	D	C106327	0.00055	<0.01	<0.0002	0.0171	21.7	0.0597	<0.0000019	0.0043	0.0035		2.95	0.00094	4.49	<0.00002	49.2	0.306	36.2	<0.00001	<0.005	<0.005	0.00202	<0.005	0.0061	<0.0001	1.2
RSEM-R6E-EOP	1/29/2021 13:05	ZF8823	M	C106336	0.00059	<0.01	<0.0002	0.0175	22.1	0.0544	<0.0000019	0.0044	0.0034		3.06	0.00095	4.56	<0.00002	50.8	0.306	36.4	<0.00001	<0.005	<0.005	0.00206	<0.005	0.0061	<0.0001	1.4
RSEM-R6E-EOP	1/30/2021 13:45	ZG1727	M	C106702	0.00059	<0.01	<0.0002	0.0181	22.1	0.0562	<0.0000019	0.0047	0.0035		2.97	0.00093	4.14	<0.00002	52.5	0.307	36.8	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0063	<0.0001	1.4
RSEM-R6E-EOP	1/30/2021 13:55	ZG1728	D	C106702	0.00058	<0.01	<0.0002	0.0181	21.9	0.0553	<0.0000019	0.0046	0.0035		2.94	0.00097	4.23	<0.00002	52.8	0.304	36.6	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0064	<0.0001	1.7
RSEM-R6E-EOP	1/31/2021 12:25	ZG1721	M	C106699	0.0006	<0.01	<0.0002	0.018	21.3	0.056	<0.0000019	0.0047	0.0035		2.94	0.00097	4.1	<0.00002	51.8	0.298	35.8	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0063	<0.0001	1.9
RSEM-R6E-EOP	2/1/2021 14:15	ZG3586	M	C106954	0.00067	<0.01	<0.0002	0.017	23.0	0.0562	<0.0000019	0.0046	0.0036		3.03	0.00087	4.58	<0.00002	55.2	0.295	39.0	<0.00001	<0.005	<0.005	0.00194	<0.005	0.0064	<0.0001	2.6
RSEM-R6E-EOP	2/1/2021 14:25	ZG3587	D	C106954	0.00073	<0.01	<0.0002	0.0172	23.3	0.0563	<0.0000019	0.0047	0.0035		3.06	0.00089	4.62	<0.00002	54.8	0.292	38.7	<0.00001	<0.005	<0.005	0.00194	<0.005	0.0065	<0.0001	1.6
RSEM-R6E-EOP	2/2/2021 13:35	ZG6913	M	C107364	0.00071	<0.01	<0.0002	0.0172	22.8	0.0501	<0.0000019	0.0048	0.0034		3.05	0.0009	4.59	<0.00002	55.0	0.291	37.9	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0062	<0.0001	2.0
RSEM-R6E-EOP	2/6/2021 13:20	ZH3138	M	C108285	0.00063	<0.01	<0.0002	0.0159	20.6	0.035	<0.0000019	0.0053	0.003		2.97	0.00098	3.91	<0.00002	53.7	0.318	35.4	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0057	<0.0001	2.1
RSEM-R6E-EOP	2/7/2021 13:15	ZH3206	M	C108294	0.00062	<0.01	<0.0002	0.0167	20.9	0.0282	<0.0000019	0.0055	0.003		3.07	0.00099	4.03	<0.00002	55.8	0.313	36.4	<0.00001	<0.005	<0.005	0.00197	<0.005	0.0056	<0.0001	2.0
RSEM-R6E-EOP	2/9/2021 15:40	ZH7146	M	C109072	0.00071	<0.01	<0.0002	0.0159	21.8	0.0283	<0.0000019	0.0053	0.0031		3.21	0.00097	4.71	<0.00002	57.6	0.31	37.3	<0.00001	<0.005	<0.005	0.00192	<0.005	0.006	<0.0001	1.6
RSEM-R6E-EOP	2/10/2021 13:00	ZH7145	M	C109071	0.00071	<0.01	<0.0002	0.0164	22.0	0.0276	<0.0000019	0.0054	0.0031		3.25	0.00099	4.72	<0.00002	58.4	0.315	38.6	<0.00001	<0.005	<0.005	0.00196	<0.005	0.006	<0.0001	1.7
RSEM-R6E-EOP	2/11/2021 16:45	ZH8474	M	C109352	0.00067	<0.01	<0.0002	0.0158	21.0	0.0314	<0.0000019	0.0052	0.0031		2.94	0.00094	4.58	<0.00002	56.4	0.277	36.8	<0.00001	<0.005	<0.005	0.00204	<0.005	0.0058	<0.0001	1.3
RSEM-R6E-EOP	2/12/2021 10:40	ZH8472	M	C109351	0.00069	<0.01	<0.0002	0.0163	21.5	0.029	<0.0000019	0.0051	0.0032		3.03	0.00096	4.58	<0.00002	57.5	0.28	37.8	<0.00001	<0.005	<0.005	0.0021	<0.005	0.0061	<0.0001	1.5
RSEM-R6E-EOP	2/13/2021 13:30	ZH8989	M	C109471	0.0007	<0.01	<0.0002	0.0155	21.0	0.0362	<0.0000019	0.0049	0.0032		2.97	0.00089	4.41	<0.00002	57.0	0.268	36.2	<0.00001	<0.005	<0.005	0.00202	<0.005	0.006	<0.0001	1.7
RSEM-R6E-EOP	2/14/2021 9:45	ZI0120	M	C109675	0.0006	<0.01	<0.0002	0.0172	21.4	0.0356	<0.0000019	0.0055	0.0035		3.19	0.00095	4.61	<0.00002	58.0	0.304	37.9	<0.00001	<0.005	<0.005	0.00201	<0.005	0.0067	<0.0001	1.4
RSEM-R6E-EOP	2/19/2021 12:45	ZI6370	M	C110747	0.00068	<0.01	<0.0002	0.0173	21.9	0.04	<0.0000019	0.0055	0.0032		3.25	0.00098	4.84	<0.00002	59.7	0.306	40.0	<0.00001	<0.005	<0.005	0.00197	<0.005	0.0077	<0.0001	1.3
RSEM-R6E-EOP	2/20/2021 11:30	ZI8655	M	C111165	0.00065	<0.01	<0.0002	0.0153	21.3	0.0425	<0.0000019	0.0052	0.0031		3.12	0.0009	4.5	<0.00002	57.7	0.28	37.2	<0.00001	<0.005	<0.005	0.00191	<0.005	0.0062	<0.0001	1.3
RSEM-R6E-EOP	2/21/2021 13:30	ZI8310	M	C111114	0.00063	<0.01	<0.0002	0.0151	21.3	0.0598	<0.0000019	0.0053	0.0033		3.16	0.00086	4.27	<0.00002	57.4	0.279	37.1	<0.00001	<0.005	<0.005	0.00191	<0.005	0.0065	<0.0001	1.4
RSEM-R6E-EOP	2/22/2021 15:20	ZJ0342	M	C111442	<0.0005	<0.01	<0.0002	0.0158	20.0	0.0909	<0.0000019	0.0051	0.0025		3.27	0.00102	4.89	<0.00002	56.1	0.287	36.2	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	6.4
RSEM-R6E-EOP	2/22/2021 15:30	ZJ0343	D	C111442	<0.0005	<0.01	<0.0002	0.0156	19.7	0.0914	<0.0000019	0.0051	0.0025		3.30	0.00082	4.12	<0.00002	55.1	0.285	36.6	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	6.3
RSEM-R6E-EOP	2/23/2021 14:55	ZJ2756	M	C111785	0.00052	<0.01	<0.0002	0.0142	18.2	0.0918	<0.0000019	0.0055	0.0031		3.25	0.00081	4.47	<0.00002	53.1	0.303	33.4	<0.00001	<0.005	<0.005	0.00177	<0.005	0.0063	<0.0001	4.6
RSEM-R6E-EOP	2/24/2021 13:50	ZJ5662	M	C112157	0.00063	<0.01	<0.0002	0.0152	18.5	0.0828	<0.0000019	0.0056	0.0033		3.41	0.00079	4.33	<0.00002	52.4	0.295	32.9	<0.00001	<0.005	<0.005	0.00174	<0.005	0.0059	0.00011	2.7
RSEM-R6E-EOP	2/24/2021 14:00	ZJ5663	D	C112157	0.00062	<0.01	<0.0002	0.0145	18.9	0.0837	<0.0000019	0.0056	0.0034		3.49	0.00077	4.36	<0.00002	53.0	0.296	34.0	<0.00001	<0.005	<0.005	0.00173	<0.005	0.0057	<0.0001	3.0
RSEM-R6E-EOP	2/25/2021 12:20	ZJ8555	M	C112624	0.00057	<0.01	<0.0002	0.0142	18.2	0.0342	<0.0000019	0.0057	0.0033		3.50	0.0008	4.19	<0.00002	51.3	0.302	31.7	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	2/28/2021 13:00	ZK2233	M	C113095	0.00095	<0.01	<0.0002	0.0152	16.9	0.0566	<0.0000019	0.0065	0.0036		3.92	0.00079	4.2	<0.00002	51.0	0.328	33.8	<0.00001	<0.005	<0.005	0.00161	<0.005	0.0058	<0.0001	2.7
RSEM-R6E-EOP	3/1/2021 9:50	ZK1994	M	C113051	0.00071	<0.01	<0.0002	0.015	17.9	0.0664	<0.0000019	0.0064	0.0035		3.80	0.0008	4.3	<0.00002	53.0	0.344	33.0	<0.00001	<0.005	<0.005	0.00168	<0.005	0.0056	<0.0001	1.6
RSEM-R6E-EOP	3/2/2021 15:45	ZK8062	M	C114225	0.00062	<0.01	<0.0002	0.0143	18.5	0.0639	<0.0000019	0.0059	0.0033		3.71	0.00078	4.13	<0.00002	53.1	0.316	33.7	<0.00001	<0.005	<0.005	0.00162	<0.005	0.0054	<0.0001	1.3
RSEM-R6E-EOP	3/3/2021 15:30	ZK8060	M	C114224	0.00059	<0.01	<0.0002	0.0145	18.9	0.0651	<0.0000019	0.006	0.0036		3.76	0.00082	4.28	<0.00002	53.7	0.311	34.1	<0.00001	<0.005	<0.005	0.00162	<0.005	0.0057	<0.0001	1.6
RSEM-R6E-EOP	3/4/2021 14:00	ZL0407	M	C114582	0.00068	<0.01	<0.0002	0.0141	17.9	0.0636	<0.0000019	0.0059	0.0034		3.60	0.00082	4.22	<0.00002	52.4	0.305	32.3	<0.00001	<0.005	<0.005	0.00172	<0.005	0.0061	<0.0001	1.1
RSEM-R6E-EOP	3/5/2021 12:40	ZL0413	M	C114584	0.00068	<0.01	<0.0002	0.0139	17.8	0.0657	<0.0000019	0.0062	0.0035		3.70	0.00084	4.11	<0.00002	52.1	0.316	33.2	<0.00001	<0.005	<0.005	0.00172	<0.005	0.0056	<0.0001	0.90
RSEM-R6E-EOP	3/6/2021 9:30	ZL3535	M	C115040	<0.0005	<0.01	<0.0002	0.0138	16.6	0.116	<0.0000019	0.0058	0.0034		3.63	0.0008	3.75	<0.00002	49.0	0.324	34.4	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	11
RSEM-R6E-EOP	3/7/2021 13:20	ZL3596	M	C115055	<0.0005	<0.01	<0.0002	0.0128	14.3	0.101	<0.0000019	0.0046	0.0018		2.05	0.00114	2.87	<0.00002	39.9	0.245	39.0	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	12
RSEM-R6E-EOP	3/8/2021 12:00	ZL3597	M	C115055	<0.0005	<0.01	<0.0002	0.0133	14.5	0.0929	<0.0000019	0.005	0.002		2.40	0.00107	3	<0.00002	41.3	0.273	40.2	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	6.9
RSEM-R6E-EOP	3/9/2021 14:40	ZL6925	M	C115720	<0.0005	<0.01	<0.0002	0.0141	14.7	0.0857	<0.0000019	0.0051	0.002		2.43	0.00116	3.2	<0.00002	42.4	0.294	42.5	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	3.3
RSEM-R6E-EOP	3/10/2021 12:45	ZL8187	M	C115987	<0.0005	<0.01	<0.0002	0.0133	14.5	0.0718	<0.0000019	0.0049	0.002		2.43	0.00102	3.17	<0.00002	41.1	0.289	41.4	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.89
RSEM-R6E-EOP	3/11/2021 12:50	ZL8465	M	C116050	<0.0005	<0.01	<0.0002	0.0133	14.6	0.062	<0.0000019	0.0048	0.002		2.44	0.00101	3.05	<0.00002	40.9	0.287	41.3	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.62
RSEM-R6E-EOP	3/13/2021 13:50	ZM2421	M	C116756	<0.0005	<0.01	<0.0002	0.0138	15.1	0.0542	<0.0000019	0.0049	0.002		2.51	0.00105	2.93	<0.00002	42.4	0.28	43.3	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	3/15/2021 11:40	ZM4113	M	C117045	<0.0005	<0.01	<0.0002	0.0134	15.1	0.08	<0.0000019	0.0051	0.0023		2.72	0.00099	2.87	<0.00002	42.2	0.304	39.4	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	2.9
RSEM-R6E-EOP	3/15/2021 11:50	ZM4114	D	C117045	<0.0005	<0.01	<0.0002	0.0134	14.5	0.0798	<0.0000019	0.005	0.0024		2.67	0.00091	2.95	<0.00002	40.3	0.309	38.7	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	2.8
RSEM-R6E-EOP	3/16/2021 13:30	ZM5656	M	C117434	<0.0005	<0.01	<0.0002	0.0133	14.7	0.0536	<0.0000019	0.0049	0.0022		2.69	0.00097	2.75	<0.00002	41.4	0.303	40.6	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	4.1
RSEM-R6E-EOP	3/17/2021 14:10	ZM7317	M	C117752	<0.0005	<0.01	<0.0002	0.0133	14.2	0.053	<0.0000019	0.005	0.0022		2.60	0.00105	2.84	<0.00002	40.6	0.289	38.6	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	3.7
RSEM-R6E-EOP	3/17/2021 14:20	ZM7318	D	C117752	<0.0005	<0.01	<0.0002	0.0133	14.2	0.0533	<0.0000019	0.005	0.0022		2.59	0.00096	2.86	<0.00002	40.7	0.289	36.9	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	3.6
RSEM-R6E-EOP	3/18/2021 12:40	ZM8873	M	C118063	0.00054	<0.01	<0.0002	0.0139	14.1	0.0635	<0.0000019	0.0047	0.0036		2.81	0.00092	2.76	<0.00002	39.8	0.313	40.1	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	4.7
RSEM-R6E-EOP	3/19/2021 13:05	ZM8864	M	C118061	0.00067	<0.01	<0.0002	0.0143	13.8	0.059	<0.0000019	0.0047	0.0039		2.74	0.00088	2.58	<0.00002	37.3	0.314	38.3	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	4.1
RSEM-R6E-EOP	3/19/2021 13:15	ZM8865	D	C118061	0.00075	<0.01	<0.0002	0.0145	14.0	0.0594	<0.0000019	0.0047	0.0039		2.81	0.00088	2.63	<0.00002	38.1	0.306	38.8	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	4.9
RSEM-R6E-EOP	3/20/2021 15:35	ZN1534	M	C118497	0.00081	<0.01	<0.0002	0.0135	14.0	0.0636	<0.0000019	0.0049	0.005		3.34	0.00091	2.6	<0.00002	37.7	0.338	38.0	0.000011	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	4.3
RSEM-R6E-EOP	3/21/2021 11:45	ZN1581	M	C118513	0.00078	<0.01	<0.0002	0.0131	13.3	0.0508	<0.0000019	0.0049	0.0045		3.24	0.00084	2.51	<0.00002	36.7	0.335	35.5	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	3.5
RSEM-R6E-EOP	3/21/2021 11:55	ZN1582	D	C118513	0.00084	<0.01	<0.0002	0.0131	13.7	0.0522	<0.0000019	0.0049	0.0048		3.35	0.00083	2.52	<0.00002	37.0	0.329	38.2	0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	3.7
RSEM-R6E-EOP	3/22/2021 10:50	ZN1161	M	C118411	0.00077	<0.01	<0.0002	0.0129	13.2	0.0484	<0.0000019	0.0049	0.0047		3.27	0.00083	2.39	<0.00002	36.2	0.331	37.6	0.000011	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	3.7
RSEM-R6E-EOP	3/23/2021 13:10	ZN5253	M	C119350	0.00075	<0.01	<0.0002	0.0144	13.2	0.0374	<0.0000019	0.0048	0.0044		3.27	0.00077	2.39	<0.00002	37.1	0.335	36.1	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	3.4
RSEM-R6E-EOP	3/24/2021 11:45	ZN5256	M	C119352	0.0008	<0.01	<0.0002	0.0142	12.9	0.0376	<0.0000019	0.0049	0.0045		3.31	0.00078	2.33	<0.00002	36.3	0.324	34.8	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	3.4
RSEM-R6E-EOP	3/26/2021 11:50	ZN6315	M	C119607	0.00076	<0.01	<0.0002	0.014	12.5	0.0244	<0.0000019	0.0047	0.0041		3.30	0.00074	2.22	<0.00002	35.0	0.323	34.9	0.000012	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	1.3
RSEM-R6E-EOP	3/27/2021 13:30	ZN9494	M	C120087	0.0008	<0.01	<0.0002	0.0149	13.1	0.0381	<0.0000019	0.0049	0.0045		3.38	0.00081	2.37	<0.00002	36.4	0.327	37.2	0.000012	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	1.6
RSEM-R6E-EOP	3/28/2021 10:50	ZN9521	M	C120093	0.00084	<0.01	<0.0002	0.015	13.2	0.0506	<0.0000019	0.0052	0.005		3.50	0.00079	2.39	<0.00002	36.4	0.334	34.8	0.000011	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	3/29/2021 10:30	ZN9580	M	C120108	0.00113	<0.01	<0.0002	0.0151	13.2	0.043	<0.0000019	0.0054	0.0052		3.62	0.00076	2.34	<0.00002	36.5	0.352	33.2	0.000011	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	1.6
RSEM-R6E-EOP	3/30/2021 13:15	ZO2683	M	C120790	0.00089	<0.01	<0.0002	0.0137	13.4	0.028	<0.0000019	0.0052	0.0045		3.68	0.00066	2.22	<0.00002	35.7	0.366	32.7	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	3/31/2021 16:30	ZO4116	M	C121130	0.00089	<0.01	<0.0002	0.0132	13.2	0.0459	<0.0000019	0.0053	0.0052		3.72	0.00065	2.19	<0.00002	34.1	0.369	30.7	<0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	2.8
RSEM-R6E-EOP	4/1/2021 11:10	ZO4122	M	C121132	0.00089	<0.01	<0.0002	0.0134	13.4	0.0505	<0.0000019	0.0053	0.0057		3.83	0.00063	2.24	<0.00002	34.4	0.389	29.6	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001	2.7
RSEM-R6E-EOP	4/1/2021 11:20	ZO4123	D	C121132	0.00089	<0.01	<0.0002	0.0134	13.2	0.0508	<0.0000019	0.0052	0.0056		3.78	0.0006	2.19	<0.00002	34.1	0.387	29.3	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	4/2/2021 12:30	ZO4864	M	C121238	0.00094	<0.01	<0.0002	0.014	13.0	0.0567	0.000002	0.0053	0.0058		3.47	0.00065	1.92	<0.00002	34.2	0.346	30.7	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	4.6
RSEM-R6E-EOP	4/3/2021 13:00	ZO6449	M	C121575	0.00085	<0.01	<0.0002	0.0123	12.5	0.0473	<0.0000019	0.0051	0.0053		3.42	0.0006	1.86	<0.00002	32.6	0.34	28.3	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	2.8
RSEM-R6E-EOP	4/4/2021 12:40	ZO6463	M	C121580	0.00093	<0.01	<0.0002	0.0128	12.4	0.0541	<0.0000019	0.0054	0.0054		3.29	0.00091	1.88	<0.00002	35.8	0.336	31.3	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	8.8
RSEM-R6E-EOP	4/5/2021 12:30	ZO7516	M	C121801	0.00141	<0.01	<0.0002	0.0182	12.4	0.0555	<0.0000019	0.0071	0.0058		2.43	0.00239	2.38	<0.00002	54.7	0.26	44.8	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	11
RSEM-R6E-EOP	4/5/2021 12:40	ZO7517	D	C121801	0.0014	<0.01	<0.0002	0.0182	12.3	0.055	<0.0000019	0.0071	0.0058		2.41	0.00237	2.34	<0.00002	53.8	0.261	43.7	<0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	10
RSEM-R6E-EOP	4/6/2021 14:20	ZO9474	M	C122250	0.00119	<0.01	<0.0002	0.0185	12.2	0.0504	<0.0000019	0.0072	0.0049		2.50	0.00227	2.51	<0.00002	54.6	0.271	46.0	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	4.9
RSEM-R6E-EOP	4/7/2021 14:30	ZP0880	M	C122580	0.00126	<0.01	<0.0002	0.0182	11.2	0.0469	<0.0000019	0.0074	0.0049		2.36	0.00228	2.17	<0.00002	51.1	0.262	40.8	<0.00001	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	3.6
RSEM-R6E-EOP	4/8/2021 12:00	ZP1742	M	C122796	0.00108	<0.01	<0.0002	0.0171	11.8	0.0404	<0.0000019	0.0068	0.0044		2.39	0.00233	2.18	<0.00002	51.8	0.257	43.1	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	2.2
RSEM-R6E-EOP	4/9/2021 13:20	ZP1764	M	C122801	0.00102	<0.01	<0.0002	0.0168	11.5	0.0369	<0.0000019	0.007	0.0043		2.48	0.00228	1.96	<0.00002	51.3	0.262	43.7	<0.00001	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	1.7

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6E-EOP	4/10/2021 11:05	ZP3593	M	C123204	0.00098	<0.01	<0.0002	0.0164	11.5	0.033	<0.0000019	0.0067	0.0041		2.46	0.00211	1.81	<0.00002	50.6	0.248	42.1	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	1.9
RSEM-R6E-EOP	4/11/2021 12:30	ZP3856	M	C123260	0.00094	<0.01	<0.0002	0.0163	11.2	0.0264	<0.0000019	0.0067	0.0038		2.42	0.00202	1.66	<0.00002	49.9	0.255	41.3	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	4/11/2021 12:40	ZP3857	D	C123260	0.00095	<0.01	<0.0002	0.0165	11.2	0.0262	<0.0000019	0.0065	0.0039		2.44	0.00199	1.65	<0.00002	49.8	0.247	40.9	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	4/12/2021 10:40	ZP3853	M	C123259	0.00091	<0.01	<0.0002	0.0165	11.5	0.0219	<0.0000019	0.0066	0.0038		2.52	0.00207	1.51	<0.00002	50.7	0.252	42.4	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	2.2
RSEM-R6E-EOP	4/13/2021 11:30	ZP9470	M	C124396	0.00103	<0.01	<0.0002	0.0143	10.2	0.0099	<0.0000019	0.0064	0.0033		2.37	0.0019	1.19	<0.00002	44.2	0.24	39.4	0.000017	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	4/14/2021 11:00	ZP9473	M	C124397	0.00091	<0.01	<0.0002	0.0144	10.3	0.0103	<0.0000019	0.0061	0.0033		2.33	0.00173	1.09	<0.00002	43.4	0.236	38.5	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	1.3
RSEM-R6E-EOP	4/15/2021 17:40	ZQ1505	M	C124804	0.00055	<0.01	<0.0002	0.0181	11.5	0.0199	<0.0000019	0.0064	0.0028		2.07	0.00205	2.35	<0.00002	50.5	0.254	39.6	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	9.8
RSEM-R6E-EOP	4/16/2021 10:40	ZQ1481	M	C124799	<0.0005	<0.01	<0.0002	0.0192	11.7	0.0215	<0.0000019	0.0065	0.0024		1.90	0.00216	2.72	<0.00002	54.4	0.253	40.8	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	8.3
RSEM-R6E-EOP	4/17/2021 11:30	ZQ3724	M	C125158	<0.0005	<0.01	<0.0002	0.0189	11.7	0.0141	<0.0000019	0.0062	0.0022		1.84	0.0021	2.4	<0.00002	53.5	0.236	39.8	<0.00001	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	4.5
RSEM-R6E-EOP	4/18/2021 10:45	ZQ3727	M	C125158	<0.0005	<0.01	<0.0002	0.0182	11.7	0.0094	<0.0000019	0.0061	0.002		1.88	0.00198	2.23	<0.00002	53.9	0.232	40.1	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	4.9
RSEM-R6E-EOP	4/19/2021 12:15	ZQ5794	M	C125554	<0.0005	<0.01	<0.0002	0.0181	11.3	0.007	<0.0000019	0.006	0.0021		1.95	0.00198	2.04	<0.00002	52.7	0.238	39.1	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	9.4
RSEM-R6E-EOP	4/20/2021 10:45	ZQ9980	M	C126323	0.00057	<0.01	<0.0002	0.0176	11.3	<0.001	<0.0000019	0.0063	0.0018		1.98	0.00189	1.94	<0.00002	52.2	0.245	39.2	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	12
RSEM-R6E-EOP	4/21/2021 10:30	ZQ9983	M	C126323	0.00057	<0.01	<0.0002	0.0178	11.8	<0.001	<0.0000019	0.0064	0.0019		2.08	0.00176	1.76	<0.00002	52.6	0.253	40.3	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	11
RSEM-R6E-EOP	4/22/2021 9:45	ZR1312	M	C126529	0.00065	<0.01	<0.0002	0.0187	12.5	<0.001	<0.0000019	0.0063	0.0018		2.20	0.00172	1.67	<0.00002	54.2	0.269	41.2	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	11
RSEM-R6E-EOP	4/23/2021 9:45	ZR1315	M	C126529	0.00077	<0.01	<0.0002	0.0183	13.0	0.0016	0.0000022	0.0064	0.0019		2.31	0.00165	1.39	<0.00002	55.4	0.268	43.3	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	8.9
RSEM-R6E-EOP	4/24/2021 3:00	ZR4687	M	C127059	0.00068	<0.01	<0.0002	0.0172	11.3	<0.001	<0.0000019	0.0064	0.0019		2.28	0.00164	1.45	<0.00002	50.2	0.254	38.8	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	9.2
RSEM-R6E-EOP	4/25/2021 14:30	ZR4685	M	C127059	0.00068	<0.01	<0.0002	0.0172	11.6	<0.001	<0.0000019	0.0065	0.002		2.28	0.00165	1.3	<0.00002	50.4	0.262	39.6	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	9.0
RSEM-R6E-EOP	4/26/2021 10:45	ZR5704	M	C127281	0.0006	<0.01	<0.0002	0.0176	11.8	0.0022	<0.0000019	0.0065	0.002		2.37	0.00162	1.31	<0.00002	50.6	0.264	41.0	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	11
RSEM-R6E-EOP	4/27/2021 15:30	ZR7958	M	C127704	0.00067	<0.01	<0.0002	0.0161	12.3	<0.001	<0.0000019	0.0065	0.002		2.42	0.00148	1.06	<0.00002	52.6	0.276	42.1	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	10
RSEM-R6E-EOP	4/28/2021 12:40	ZS0315	M	C128230	0.00079	<0.01	<0.0002	0.0163	12.3	<0.001	<0.0000019	0.0065	0.002		2.43	0.00142	1.18	<0.00002	52.7	0.262	40.0	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	14
RSEM-R6E-EOP	4/29/2021 10:20	ZS2292	M	C128584	0.00061	<0.01	<0.0002	0.0164	12.3	<0.001	0.0000036	0.0062	0.0018		2.30	0.00151	1.27	<0.00002	50.4	0.261	39.2	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	14
RSEM-R6E-EOP	4/30/2021 11:05	ZS2249	M	C128573	0.00067	<0.01	<0.0002	0.0163	12.5	<0.001	0.0000038	0.0063	0.0018		2.32	0.00136	0.974	<0.00002	50.1	0.265	38.9	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	11
RSEM-R6E-EOP	5/3/2021 10:15	ZS6021	M	C129096	0.00091	<0.01	<0.0002	0.0164	12.6	<0.001	<0.0000019	0.0061	0.0018		2.41	0.00122	0.712	<0.00002	47.4	0.26	36.6	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	15
RSEM-R6E-EOP	5/4/2021 13:30	ZS9945	M	C129944	0.00087	<0.01	<0.0002	0.0149	12.6	0.001	<0.0000019	0.0062	0.0017		2.41	0.00108	0.672	<0.00002	45.7	0.26	36.6	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	7.9
RSEM-R6E-EOP	5/5/2021 12:50	ZT3122	M	C130491	0.00088	<0.01	<0.0002	0.0154	13.0	<0.001	<0.0000019	0.0059	0.0018		2.53	0.00116	0.593	<0.00002	46.4	0.274	36.9	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	7.6
RSEM-R6E-EOP	5/6/2021 15:20	ZT3103	M	C130484	0.0012	<0.01	<0.0002	0.0155	13.7	<0.001	<0.0000019	0.0061	0.0018		2.67	0.00113	0.425	<0.00002	47.7	0.283	37.5	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	11
RSEM-R6E-EOP	5/7/2021 11:20	ZT3093	M	C130477	0.00105	<0.01	<0.0002	0.0157	14.2	<0.001	<0.0000019	0.0061	0.0018		2.63	0.00108	0.343	<0.00002	47.9	0.284	38.0	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	10
RSEM-R6E-EOP	5/8/2021 12:50	ZT6586	M	C130995	0.00102	<0.01	<0.0002	0.0147	13.3	<0.001	<0.0000019	0.0061	0.0017		2.65	0.00109	0.294	<0.00002	46.5	0.291	37.4	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	5.0
RSEM-R6E-EOP	5/9/2021 13:20	ZT6966	M	C131057	0.0009	<0.01	<0.0002	0.0146	13.9	<0.001	<0.0000019	0.0061	0.0018		2.75	0.00107	0.275	<0.00002	47.8	0.304	37.2	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	3.8
RSEM-R6E-EOP	5/10/2021 5:10	ZT6907	M	C131048	0.00087	<0.01	<0.0002	0.0144	13.9	<0.001	<0.0000019	0.0062	0.0018		2.79	0.00102	0.277	<0.00002	47.6	0.305	38.1	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	3.9
RSEM-R6E-EOP	5/11/2021 10:30	ZU0196	M	C131591	0.0009	<0.01	<0.0002	0.0126	14.0	<0.001	<0.0000019	0.006	0.0018		2.81	0.00109	0.268	<0.00002	46.6	0.303	35.4	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	2.8
RSEM-R6E-EOP	5/11/2021 10:40	ZU0197	D	C131591	0.00093	<0.01	<0.0002	0.0128	14.2	<0.001	<0.0000019	0.0062	0.0018		2.89	0.00117	0.268	<0.00002	47.6	0.311	37.1	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	2.7
RSEM-R6E-EOP	5/12/2021 10:50	ZU2124	M	C131927	0.00088	<0.01	<0.0002	0.0143	15.7	<0.001	<0.0000019	0.0064	0.0018		3.19	0.00111	0.31	<0.00002	50.5	0.321	40.0	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	2.9
RSEM-R6E-EOP	5/13/2021 10:20	ZU4935	M	C132324	0.00083	<0.01	<0.0002	0.016	15.1	<0.001	<0.0000019	0.0064	0.0016		3.11	0.00114	0.313	<0.00002	49.8	0.315	39.0	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	5/13/2021 10:30	ZU4936	D	C132324	0.00084	<0.01	<0.0002	0.0157	15.3	<0.001	<0.0000019	0.0064	0.0017		3.12	0.00113	0.314	<0.00002	50.4	0.316	37.6	0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	5/14/2021 10:00	ZU4951	M	C132327	0.00082	<0.01	<0.0002	0.0165	14.7	<0.001	<0.0000019	0.0061	0.0016		3.00	0.00115	0.263	<0.00002	48.0	0.303	37.4	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	2.1
RSEM-R6E-EOP	5/15/2021 15:00	ZU7901	M	C132915	0.00121	0.077	<0.0002	0.0148	14.5	0.0081	<0.0000019	0.0064	0.0018		3.00	0.00114	0.326	<0.00002	47.8	0.291	35.8	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	0.00017	2.7
RSEM-R6E-EOP	5/16/2021 14:20	ZU7830	M	C132904	0.00099	<0.01	<0.0002	0.0154	14.1	0.0015	<0.0000019	0.0062	0.0015		2.93	0.00114	0.122	<0.00002	46.8	0.284	35.9	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	5/17/2021 16:20	ZU9398	M	C133243	0.00094	<0.01	<0.0002	0.0152	14.6	0.0011	<0.0000019	0.0064	0.0015		2.94	0.00121	0.103	<0.00002	48.1	0.281	35.7	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	5/18/2021 16:20	ZV2801	M	C133850	0.00103	<0.01	<0.0002	0.0169	14.9	<0.001	<0.0000019	0.0062	0.0014		2.90	0.00117	0.103	<0.00002	48.9	0.278	35.4	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	5/19/2021 13:30	ZV3573	M	C134016	0.00101	<0.01	<0.0002	0.018	16.7	<0.001	<0.0000019	0.0063	0.0015		3.58	0.0013	0.124	<0.00002	51.4	0.537	36.6	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	3.1
RSEM-R6E-EOP	5/19/2021 13:40	ZV3574	D	C134016	0.00101	<0.01	<0.0002	0.0179	16.5	<0.001	<0.0000019	0.0063	0.0016		3.56	0.00129	0.12	<0.00002	50.4	0.531	36.0	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	2.6
RSEM-R6E-EOP	5/20/2021 12:00	ZV5698	M	C134406	0.00099	<0.01	<0.0002	0.0211	18.3	0.0011	0.0000024	0.0063	0.0016		4.45	0.00139	0.129	<0.00002	51.2	0.899	38.4	0.000015	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	5/21/2021 11:20	ZV5663	M	C134400	0.00094	<0.01	<0.0002	0.0217	18.2	0.0011	<0.0000019	0.0061	0.0015		4.45	0.00142	<0.1	<0.00002	50.0	0.915	37.7	0.000013	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	5/22/2021 11:20	ZV6993	M	C134601	0.00107	<0.01	<0.0002	0.0221	19.5	0.0012	<0.0000019	0.0064	0.0016		4.64	0.00152	<0.1	<0.00002	55.3	0.994	38.4	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	5/23/2021 14:40	ZV8626	M	C134923	0.00096	<0.01	<0.0002	0.0224	18.7	0.0012	<0.0000019	0.0062	0.0017		4.51	0.00141	<0.1	<0.00002	51.3	0.974	37.9	0.000013	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	5/24/2021 12:00	ZW1260	M	C135427	0.00091	<0.01	<0.0002	0.0229	19.0	0.0013	<0.0000019	0.0062	0.0015		4.55	0.00143	<0.1	<0.00002	52.3	0.984	38.0	0.000014	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	2.2
RSEM-R6E-EOP	5/25/2021 9:50	ZW1242	M	C135423	0.00133	<0.01	<0.0002	0.0228	19.2	0.0047	<0.0000019	0.006	0.0015		4.55	0.00133	<0.1	<0.00002	52.1	0.991	36.9	0.000015	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	2.0
RSEM-R6E-EOP	5/26/2021 12:10	ZW4841	M	C136104	0.00089	<0.01	<0.0002	0.0316	25.2	0.0017	<0.0000019	0.0074	0.002		7.51	0.00131	0.346	<0.00002	57.3	2.05	43.3	0.000022	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-EOP	5/27/2021 11:30	ZW4834	M	C136103	0.00084	<0.01	<0.0002	0.0338	26.4	0.0069	<0.0000019	0.008	0.0028		8.60	0.00147	0.585	<0.00002	59.6	2.37	45.7	0.000023	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	5/28/2021 13:15	ZW4300	M	C136040	0.00089	0.011	<0.0002	0.0337	27.2	0.0075	0.0000022	0.008	0.0026		8.68	0.00149	0.408	<0.00002	61.0	2.41	47.0	0.000029	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	5/29/2021 11:20	ZW9127	M	C136816	0.00078	<0.01	<0.0002	0.0317	26.2	0.0045	<0.0000019	0.0078	0.0029		8.32	0.0015	0.258	<0.00002	59.4	2.29	46.8	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	5/30/2021 10:30	ZW9154	M	C136825	0.00076	<0.01	<0.0002	0.0327	25.7	0.0031	<0.0000019	0.0075	0.0022		8.04	0.00148	0.124	<0.00002	59.0	2.22	45.6	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	5/31/2021 6:00	ZW9167	M	C136832	0.00082	<0.01	<0.0002	0.0324	26.4	0.0041	<0.0000019	0.0075	0.0023		8.13	0.0014	<0.1	<0.00002	61.1	2.2	47.9	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-EOP	6/5/2021 10:40	ZY0220	M	C138844	0.00078	<0.01	<0.0002	0.0298	26.1	0.002	<0.0000019	0.007	0.0015		7.11	0.00126	<0.1	<0.00002	63.4	1.79	48.3	0.00002	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	6/5/2021 10:50	ZY0221	D	C138844	0.00077	<0.01	<0.0002	0.0309	25.4	0.002	<0.0000019	0.007	0.0016		6.97	0.00129	<0.1	<0.00002	61.9	1.78	46.6	0.000018	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	6/6/2021 10:40	ZY0252	M	C138850	0.00089	<0.01	<0.0002	0.0302	24.3	0.0021	<0.0000019	0.007	0.0016		6.77	0.00134	<0.1	<0.00002	61.7	1.78	47.0	0.00002	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.92
RSEM-R6E-EOP	6/7/2021 10:50	ZY3087	M	C139476	0.00092	<0.01	<0.0002	0.0287	23.7	0.002	<0.0000019	0.0067	0.0016		6.36	0.00135	<0.1	<0.00002	60.3	1.64	46.1	0.000018	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	6/7/2021 11:00	ZY3088	D	C139476	0.0009	<0.01	<0.0002	0.029	23.8	0.002	<0.0000019	0.0067	0.0016		6.37	0.00132	<0.1	<0.00002	60.4	1.63	47.4	0.000018	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	6/8/2021 11:30	ZY5038	M	C139835	0.0008	<0.01	<0.0002	0.0284	24.3	0.0016	<0.0000019	0.0065	0.0016		6.17	0.00162	<0.1	<0.00002	61.8	1.48	48.3	0.000018	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	0.86
RSEM-R6E-EOP	6/9/2021 13:30	ZY6852	M	C140198	0.0008	<0.01	<0.0002	0.0286	25.6	<0.001	<0.0000019	0.0065	0.0016		6.14	0.00171	<0.1	<0.00002	64.1	1.45	49.4	0.000018	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.83
RSEM-R6E-EOP	6/9/2021 13:40	ZY6853	D	C140198	0.00079	<0.01	<0.0002	0.0289	26.2	<0.001	<0.0000019	0.0067	0.0015		6.19	0.00174	<0.1	<0.00002	64.6	1.46	50.9	0.000019	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.73
RSEM-R6E-EOP	6/10/2021 11:45	ZY8799	M	C140527	0.00076	<0.01	<0.0002	0.0277	24.5	<0.001	<0.0000019	0.0067	0.0015		5.81	0.00183	<0.1	<0.00002	60.9	1.4	49.1	0.000015	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	0.67
RSEM-R6E-EOP	6/11/2021 14:00	ZY9642	M	C140675	0.00076	<0.01	<0.0002	0.0284	24.3	<0.001	<0.0000019	0.0072	0.0014		5.87	0.00181	<0.1	<0.00002	60.3	1.39	50.7	0.000015	<0.005	<0.005	0.0018	<0.005	<0.005	<0.0001	0.72
RSEM-R6E-EOP	6/11/2021 14:10	ZY9643	D	C140675	0.00076	<0.01	<0.0002	0.0287	24.4	<0.001	<0.0000019	0.0069	0.0013		5.68	0.00181	<0.1	<0.00002	60.5	1.38	50.0	0.000014	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	0.71
RSEM-R6E-EOP	6/15/2021 11:20	AAB013	M	C142607	0.00079	<0.01	<0.0002	0.0313	26.1	<0.001	<0.0000019	0.0066	0.0012		5.70	0.00173	<0.1	<0.00002	61.9	1.3	51.7	0.000014	<0.005	<0.005	0.00191	<0.005	<0.005	<0.0001	0.64
RSEM-R6E-EOP	6/16/2021 12:00	AAB002	M	C142604	0.00074	<0.01	<0.0002	0.0299	26.2	<0.001	<0.0000019	0.0068	0.0013		5.67	0.00175	<0.1	<0.00002	62.8	1.23	51.1	0.000012	<0.005	<0.005	0.00195	<0.005	<0.005	<0.0001	0.93
RSEM-R6E-EOP	6/17/2021 11:00	AAC467	M	C142866	0.00068	<0.01	<0.0002	0.0285	24.0	0.0011	<0.0000019	0.0061	0.0014		5.65	0.00312	0.298	<0.00002	58.8	1.05	22.7	0.000011	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	1.7
RSEM-R6E-EOP	6/18/2021 12:00	AAC475	M	C142867	0.00066	<0.01	<0.0002	0.0281	23.9	0.001	<0.0000019	0.0067	0.0014		5.85	0.00325	0.366	<0.00002	58.0	1.06	24.2	0.000011	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	0.84

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6E-EOP	6/19/2021 11:00	AAF584	M	C143352	0.00071	<0.01	<0.0002	0.0273	24.7	<0.001	<0.0000019	0.0072	0.0014		6.18	0.00292	0.261	<0.00002	58.8	1.15	26.9	0.000012	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	6/20/2021 10:00	AAF489	M	C143330	0.0007	<0.01	<0.0002	0.028	25.1	<0.001	<0.0000019	0.0066	0.0013		6.27	0.0035	0.134	<0.00002	61.3	1.05	26.1	0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	0.47
RSEM-R6E-EOP	6/21/2021 5:40	AAF560	M	C143340	0.00073	<0.01	<0.0002	0.0281	25.0	<0.001	<0.0000019	0.0066	0.0013		6.22	0.00347	<0.1	<0.00002	60.9	1.04	27.2	0.000014	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.56
RSEM-R6E-EOP	7/17/2021 15:40	ACC247	M	C151542	0.00068	0.028	<0.0002	0.032	23.2	0.0029	<0.0000019	0.0084	0.0023		7.25	0.00071	1.26	<0.00002	58.5	1.11	62.4	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	7/18/2021 13:30	ACC415	M	C151549	0.00062	0.026	<0.0002	0.0307	22.2	0.0025	<0.0000019	0.0092	0.0021		7.19	0.00106	1.56	<0.00002	56.3	1.05	64.1	0.000011	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	0.52
RSEM-R6E-EOP	7/19/2021 15:15	ACF036	M	C151946	0.00061	0.022	<0.0002	0.0275	22.7	0.0022	<0.0000019	0.0096	0.002		7.19	0.00102	1.63	<0.00002	56.0	0.986	58.8	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.45
RSEM-R6E-EOP	7/20/2021 14:30	ACH813	M	C152456	0.00119	0.015	<0.0002	0.0303	22.4	0.0023	<0.0000019	0.0083	0.0021		7.38	0.00094	1.42	<0.00002	53.7	0.761	31.9	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-EOP	7/20/2021 14:40	ACH814	D	C152456	0.00122	0.013	<0.0002	0.031	22.3	0.0014	<0.0000019	0.0082	0.002		7.27	0.00099	1.42	<0.00002	53.2	0.754	30.1	<0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	7/21/2021 15:40	ACH932	M	C152481	0.00064	0.016	<0.0002	0.0304	22.1	0.0033	<0.0000019	0.0086	0.002		7.34	0.001	1.6	<0.00002	52.0	0.741	34.6	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	7/22/2021 17:15	ACL553	M	C152988	0.00095	0.031	<0.0002	0.0334	20.9	0.0265	<0.0000019	0.006	0.0073		6.65	0.00115	1.76	<0.00002	38.5	0.952	54.4	0.00002	<0.005	<0.005	0.00208	<0.005	<0.005	<0.0001	8.0
RSEM-R6E-EOP	7/23/2021 11:30	ACL699	M	C153012	0.00085	0.019	<0.0002	0.0323	21.0	0.0071	<0.0000019	0.0062	0.0061		6.97	0.00104	1.78	<0.00002	41.4	0.939	50.7	0.00002	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001	4.5
RSEM-R6E-EOP	7/23/2021 11:40	ACL700	D	C153012	0.00081	0.014	<0.0002	0.0316	20.5	0.0054	<0.0000019	0.0063	0.0059		6.63	0.00104	1.79	<0.00002	40.2	0.923	52.8	0.000016	<0.005	<0.005	0.00199	<0.005	<0.005	<0.0001	4.1
RSEM-R6E-EOP	7/24/2021 14:40	ACO406	M	C153513	0.00073	0.011	<0.0002	0.0303	20.1	0.0033	<0.0000019	0.0067	0.0047		6.28	0.00124	1.88	<0.00002	39.7	0.935	57.0	0.000018	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001	1.6
RSEM-R6E-EOP	7/25/2021 13:50	ACO188	M	C153467	0.00073	0.015	<0.0002	0.0299	20.2	0.0031	<0.0000019	0.0066	0.0042		6.24	0.00115	1.75	<0.00002	40.5	0.898	81.1	0.000017	<0.005	<0.005	0.00205	<0.005	<0.005	<0.0001	0.74
RSEM-R6E-EOP	7/25/2021 14:00	ACO189	D	C153467	0.00072	0.016	<0.0002	0.0308	20.5	0.0032	<0.0000019	0.0069	0.004		6.37	0.00127	1.78	<0.00002	40.8	0.932	67.7	0.000023	<0.005	<0.005	0.00211	<0.005	<0.005	0.0001	1.1
RSEM-R6E-EOP	7/26/2021 10:35	ACN520	M	C153324	0.0008	0.016	<0.0002	0.0314	22.3	<0.001	<0.0000019	0.0062	0.0028		6.34	0.00158	1.58	<0.00002	43.2	0.216	75.6	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	7/27/2021 11:00	ACT043	M	C154246	0.00062	0.018	<0.0002	0.0304	20.4	0.0023	0.0000023	0.0059	0.0027		6.25	0.00126	1.43	<0.00002	38.0	0.773	52.0	0.000014	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001	0.58
RSEM-R6E-EOP	7/28/2021 12:00	ACV589	M	C154699	0.00068	<0.01	<0.0002	0.027	22.3	<0.001	<0.0000019	0.0076	0.0023		6.39	0.00164	1.24	<0.00002	44.3	0.945	76.4	0.000015	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001	0.64
RSEM-R6E-EOP	8/2/2021 5:20	ADC744	M	C155936	0.00076	<0.01	<0.0002	0.0287	24.1	0.0021	<0.0000019	0.008	0.0016		6.88	0.00103	0.764	<0.00002	49.9	1.01	78.6	0.000016	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.41
RSEM-R6E-EOP	8/5/2021 10:45	ADK133	M	C157133	0.00086	0.019	<0.0002	0.0296	22.1	0.0023	<0.0000019	0.0088	0.0027		6.56	0.00086	0.581	<0.00002	48.4	0.822	71.1	0.000014	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001	0.54
RSEM-R6E-EOP	8/5/2021 10:55	ADK134	D	C157133	0.00088	0.019	<0.0002	0.0299	22.7	0.0028	<0.0000019	0.0088	0.0029		6.63	0.00084	0.574	<0.00002	49.5	0.84	72.2	0.000014	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001	0.57
RSEM-R6E-EOP	8/6/2021 11:40	ADK122	M	C157131	0.00118	0.017	<0.0002	0.0346	34.7	0.0818	<0.0000019	0.0113	0.0068		10.4	0.00126	1.04	<0.00002	60.0	1.77	75.6	0.000026	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	8/7/2021 11:35	ADM457	M	C157545	<0.0025	<0.05	<0.001	0.032	26.0	0.027	<0.0000019	0.0112	0.0087		10.3	0.0011	1.17	<0.0001	47.2	2.03	63	<0.00005	<0.025	<0.025	0.00171	<0.025	<0.025	<0.0005	1.0
RSEM-R6E-EOP	8/8/2021 12:20	ADN227	M	C157651	0.00089	0.019	<0.0002	0.0319	22.8	0.0085	<0.0000019	0.0105	0.007		10.1	0.00103	1.53	<0.00002	41.8	1.87	56.7	0.000029	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	2.1
RSEM-R6E-EOP	8/8/2021 12:30	ADN228	D	C157651	0.00081	0.019	<0.0002	0.0324	22.5	0.0084	0.0000032	0.0103	0.0069		9.93	0.00103	1.52	<0.00002	41.2	1.83	51.5	0.000025	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	2.0
RSEM-R6E-EOP	8/9/2021 11:45	ADM367	M	C157523	0.00092	0.013	<0.0002	0.0295	26.0	0.0016	<0.0000019	0.0098	0.0071		9.05	0.00114	1.6	<0.00002	45.1	1.88	59.3	0.000027	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	8/10/2021 10:40	ADP899	M	C158211	0.00086	0.015	<0.0002	0.0312	23.2	0.0011	<0.0000019	0.0095	0.006		8.46	0.00096	1.64	<0.00002	38.5	1.58	44.3	0.000024	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	8/11/2021 12:30	ADR988	M	C158615	0.00091	0.017	<0.0002	0.0275	22.9	<0.001	<0.0000019	0.0098	0.0055		8.17	0.0009	1.61	<0.00002	37.2	1.47	45.4	0.000024	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	5.5
RSEM-R6E-EOP	8/12/2021 11:30	ADU538	M	C159104	0.00087	0.015	<0.0002	0.0309	27.4	<0.001	<0.0000019	0.01	0.0056		8.72	0.00096	1.73	<0.00002	47.2	1.61	60.8	0.000027	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001	0.57
RSEM-R6E-EOP	8/13/2021 10:40	ADU545	M	C159105	0.0009	0.014	<0.0002	0.0302	27.5	<0.001	<0.0000019	0.01	0.0052		8.63	0.00093	1.59	<0.00002	47.1	1.6	60.8	0.000027	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.62
RSEM-R6E-EOP	8/14/2021 11:00	ADW200	M	C159435	0.0009	<0.01	<0.0002	0.0257	25.1	<0.001	<0.0000019	0.0089	0.004		7.58	0.00099	1.61	<0.00002	42.7	1.3	53.3	0.000024	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	8/15/2021 11:20	ADW427	M	C159489	0.00083	<0.01	<0.0002	0.0241	24.0	<0.001	<0.0000019	0.0085	0.003		6.97	0.0009	1.61	<0.00002	41.0	1.14	49.0	0.000023	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	0.67
RSEM-R6E-EOP	8/16/2021 11:20	ADY262	M	C159861	0.00084	0.015	<0.0002	0.0221	23.3	<0.001	<0.0000019	0.0078	0.0026		6.45	0.00104	1.74	<0.00002	38.3	1.05	52.2	0.000019	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.74
RSEM-R6E-EOP	8/17/2021 11:30	AED545	M	C160795	0.00076	0.019	<0.0002	0.021	24.0	<0.001	<0.0000019	0.0074	0.0024		6.27	0.00083	1.87	<0.00002	39.6	0.932	45.7	0.000018	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001	0.89
RSEM-R6E-EOP	8/18/2021 11:00	AED516	M	C160793	0.00084	0.013	<0.0002	0.0194	22.7	<0.001	<0.0000019	0.0069	0.002		5.48	0.00116	1.98	<0.00002	36.9	0.763	43.6	0.000016	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	8/19/2021 13:40	AEF597	M	C161077	0.0009	0.014	<0.0002	0.0187	23.0	<0.001	<0.0000019	0.0064	0.0018		5.26	0.00114	2.01	<0.00002	36.7	0.713	42.0	0.00002	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	0.97
RSEM-R6E-EOP	8/20/2021 10:00	AEF522	M	C161059	0.00077	0.016	<0.0002	0.0191	23.0	<0.001	<0.0000019	0.0064	0.0018		5.24	0.00101	1.97	<0.00002	36.3	0.719	41.7	0.000016	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.74
RSEM-R6E-EOP	8/21/2021 10:40	AEI348	M	C161420	0.00079	0.013	<0.0002	0.0179	22.3	<0.001	<0.0000019	0.006	0.0018		4.77	0.00095	1.97	<0.00002	35.3	0.618	39.8	0.000015	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	0.82
RSEM-R6E-EOP	8/22/2021 12:00	AEI410	M	C161433	0.00115	<0.01	<0.0002	0.0334	28.9	0.136	<0.0000019	0.0041	0.0148		6.48	0.00133	1.64	<0.00002	27.5	1.63	71.3	0.00002	<0.005	<0.005	0.00224	<0.005	<0.005	<0.0001	3.4
RSEM-R6E-EOP	8/23/2021 11:00	AEL590	M	C161925	0.00091	<0.01	<0.0002	0.0329	28.0	0.0713	<0.0000019	0.005	0.0155		7.66	0.00074	2.09	<0.00002	26.8	1.95	50.3	0.000018	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	8/24/2021 16:55	AEN129	M	C162291	0.00105	<0.01	<0.0002	0.038	27.3	0.0476	<0.0000019	0.0058	0.0192		7.30	0.00113	2.3	<0.00002	30.0	1.74	64.4	0.000023	<0.005	<0.005	0.00247	<0.005	<0.005	<0.0001	1.6
RSEM-R6E-EOP	8/25/2021 16:35	AEP240	M	C162703	0.00102	<0.01	<0.0002	0.0313	25.5	0.0307	<0.0000019	0.0052	0.0163		6.30	0.00125	2.25	<0.00002	28.1	1.51	59.5	0.000021	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001	1.3
RSEM-R6E-EOP	8/26/2021 10:10	AER552	M	C163145	0.00096	<0.01	<0.0002	0.0337	23.5	0.0212	<0.0000019	0.0058	0.0146		6.16	0.00105	2.39	<0.00002	26.3	1.33	51.4	0.000021	<0.005	<0.005	0.00236	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	8/26/2021 10:20	AER553	D	C163145	0.00095	<0.01	<0.0002	0.0337	22.6	0.0199	<0.0000019	0.0058	0.0141		6.13	0.00108	2.33	<0.00002	25.8	1.32	53.3	0.00002	<0.005	<0.005	0.00235	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	8/27/2021 10:15	AER546	M	C163144	0.00089	<0.01	<0.0002	0.0307	21.9	0.0112	<0.0000019	0.0062	0.0112		5.73	0.0011	2.35	<0.00002	25.1	1.16	53.1	0.000018	<0.005	<0.005	0.00221	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	8/28/2021 10:50	AEV122	M	C163811	0.00084	<0.01	<0.0002	0.0263	21.1	0.007	<0.0000019	0.006	0.0092		4.88	0.00081	2.3	<0.00002	25.4	0.911	39.5	0.000017	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	8/28/2021 11:00	AEV123	D	C163811	0.00091	<0.01	<0.0002	0.0259	21.2	0.0072	<0.0000019	0.0061	0.0094		4.92	0.00085	2.27	<0.00002	25.5	0.919	42.8	0.000018	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	8/29/2021 9:55	AEV010	M	C163786	0.00089	<0.01	<0.0002	0.0273	21.2	0.0046	<0.0000019	0.0073	0.0082		5.43	0.00108	2.53	<0.00002	25.3	0.951	49.5	0.000016	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	8/30/2021 9:55	AEX827	M	C164176	0.00079	<0.01	<0.0002	0.0247	21.7	0.0037	<0.0000019	0.0068	0.0072		4.63	0.00069	2.43	<0.00002	27.0	0.753	40.5	0.000014	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-EOP	8/30/2021 10:05	AEX828	D	C164176	0.00077	<0.01	<0.0002	0.0238	20.8	0.0034	<0.0000019	0.0067	0.0069		4.65	0.00089	2.4	<0.00002	26.2	0.761	39.2	0.000014	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	8/31/2021 16:35	AFA831	M	C164798	0.00078	<0.01	<0.0002	0.0233	20.9	0.0025	<0.0000019	0.0067	0.0065		4.37	0.0011	2.48	<0.00002	28.2	0.632	34.9	0.000014	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	9/1/2021 15:30	AFC990	M	C165103	0.00076	<0.01	<0.0002	0.0223	20.9	0.002	<0.0000019	0.0069	0.0058		4.34	0.00113	2.48	<0.00002	28.5	0.571	36.2	0.000014	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	9/1/2021 15:40	AFC991	D	C165103	0.00074	<0.01	<0.0002	0.0225	20.9	0.0021	<0.0000019	0.0069	0.0058		4.31	0.00114	2.49	<0.00002	28.6	0.57	35.3	0.000012	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	9/2/2021 11:10	AFF606	M	C165563	0.00077	<0.01	<0.0002	0.0194	20.9	0.0017	<0.0000019	0.0073	0.0056		4.42	0.00109	2.5	<0.00002	28.5	0.601	32.6	0.000013	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	9/3/2021 11:05	AFF864	M	C165588	0.00084	<0.01	<0.0002	0.0212	23.0	<0.001	<0.0000019	0.0074	0.0056		4.53	0.00116	2.56	<0.00002	30.6	0.533	52.8	<0.00001	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	9/3/2021 11:15	AFF865	D	C165588	0.00087	<0.01	<0.0002	0.0216	23.6	<0.001	<0.0000019	0.0074	0.0058		4.57	0.00113	2.59	<0.00002	31.1	0.553	49.5	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-EOP	9/4/2021 16:10	AFH288	M	C165785	0.00085	<0.01	<0.0002	0.0196	21.9	0.0026	<0.0000019	0.0067	0.0052		3.97	0.00073	2.94	<0.00002	29.3	0.508	48.3	0.000016	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	1.3
RSEM-R6E-EOP	9/5/2021 13:50	AFI819	M	C166081	0.00076	<0.01	<0.0002	0.0177	18.7	0.0035	<0.0000019	0.0058	0.0046		3.59	0.00108	2.47	<0.00002	24.9	0.44	28.3	0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	1.8
RSEM-R6E-EOP	9/5/2021 14:00	AFI820	D	C166081	0.00082	<0.01	<0.0002	0.0176	19.4	0.0036	<0.0000019	0.0061	0.0047		3.75	0.00117	2.52	<0.00002	26.1	0.457	49.1	0.000011	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001	1.8
RSEM-R6E-EOP	9/6/2021 12:15	AFI718	M	C166063	0.00061	<0.01	<0.0002	0.0185	20.2	0.0021	<0.0000019	0.0046	0.0038		3.49	0.00088	2.38	<0.00002	26.0	0.41	27.2	0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	9/7/2021 11:20	AFL344	M	C166557	0.00073	0.008	<0.0002	0.0176	19.5	0.0023	<0.0000019	0.0046	0.0036		3.40	0.00078	2.35	<0.00002	24.8	0.39	27.0	<0.00001	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	1.0
RSEM-R6E-EOP	9/8/2021 10:50	AFO056	M	C167059	0.00078	<0.01	<0.0002	0.0184	20.3	<0.001	<0.0000019	0.0058	0.0041		3.48	0.00115	2.61	<0.00002	26.3	0.356	43.8	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	9/9/2021 11:20	AFQ844	M	C167445	0.001	<0.01	<0.0002	0.0193	23.1	0.0012	<0.0000019	0.0053	0.0043		3.47	0.00126	2.51	<0.00002	29.6	0.392	44.3	0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	1.8
RSEM-R6E-EOP	9/10/2021 9:50	AFQ880	M	C167449	0.00072	<0.01	<0.0002	0.0183	21.8	0.0029	<0.0000019	0.0047	0.0039		3.46	0.00051	2.58	<0.00002	28.4	0.406	38.2	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	1.3
RSEM-R6E-EOP	9/11/2021 12:00	AFV352	M	C168029	0.00074	<0.01	<0.0002	0.02	21.7	0.0017	<0.0000019	0.005	0.0035		3.46	0.00124	2.52	<0.00002	28.8	0.396	39.4	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	1.3
RSEM-R6E-EOP	9/12/2021 13:00	AFV416	M	C168037	0.00066	<0.01	<0.0002	0.0197	22.0	0.0114	<0.0000019	0.0046	0.0035		3.44	0.00117	2.33	<0.00002	29.4	0.401	38.6	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-EOP	9/13/2021 5:00	AFV243	M	C168020	0.00063	<0.01	<0.0002	0.0204	21.4	0.0044	<0.0000019	0.0045	0.0035		3.44	0.00109	2.3	<0.00002	29.5	0.39	39.2	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	1.3
RSEM-R6E-EOP	9/14/2021 16:30	AGB015	M	C169017	0.0007	0.011	<0.0002	0.0208	24.0	0.0029	<0.0000019	0.0047	0.0033		3.64	0.00159	2.14	<0.00002	32.7	0.407	53.1	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-EOP	9/15/2021 10:20	AGD164	M	C169361	0.00066	<0.01	<0.0002	0.0216	23.5	0.0035	<0.0000019	0.0046	0.0036		3.51	0.00109	2.14	<0.00002	34.0	0.368	44.5	<0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	1.7

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6E-EOP	9/16/2021 12:35	AGG327	M	C169805	0.00066	<0.01	<0.0002	0.023	25.5	0.0026	0.0000024	0.0045	0.0037		3.72	0.00115	2.18	<0.00002	36.8	0.4	47.2	<0.00001	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	9/16/2021 12:45	AGG328	D	C169805	0.00066	0.01	<0.0002	0.0227	25.7	0.0029	<0.0000019	0.0046	0.0038		3.74	0.00064	2.17	<0.00002	37.0	0.398	46.7	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	1.6
RSEM-R6E-EOP	9/17/2021 10:40	AGG307	M	C169799	0.00068	<0.01	<0.0002	0.0231	26.3	0.0015	<0.0000019	0.0043	0.0039		3.73	0.00066	2.13	<0.00002	37.9	0.415	47.9	<0.00001	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	9/18/2021 12:00	AGJ632	M	C170329	0.00073	<0.01	<0.0002	0.0229	26.8	<0.001	<0.0000019	0.0045	0.0039		3.85	0.00166	2.25	<0.00002	37.2	0.464	49.9	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	1.9
RSEM-R6E-EOP	9/18/2021 12:10	AGJ633	D	C170329	0.00075	<0.01	<0.0002	0.0227	25.9	0.0013	<0.0000019	0.0045	0.0039		3.71	0.00162	2.26	<0.00002	36.0	0.449	49.9	<0.00001	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	2.0
RSEM-R6E-EOP	9/19/2021 11:10	AGJ664	M	C170331	0.00071	<0.01	<0.0002	0.0236	26.5	0.0013	<0.0000019	0.0047	0.0039		3.86	0.00147	2.45	<0.00002	36.5	0.473	51.6	0.00001	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	9/20/2021 10:20	AGM219	M	C170680	0.0007	<0.01	<0.0002	0.0218	25.1	0.0015	<0.0000019	0.0048	0.004		3.79	0.00161	2.41	<0.00002	34.7	0.423	49.5	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	2.0
RSEM-R6E-EOP	9/20/2021 10:30	AGM220	D	C170680	0.0008	<0.01	<0.0002	0.022	26.0	0.0017	<0.0000019	0.0049	0.0042		3.87	0.00155	2.42	<0.00002	35.8	0.445	48.3	<0.00001	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	1.8
RSEM-R6E-EOP	9/21/2021 11:10	AGO663	M	C171134	0.00069	<0.01	<0.0002	0.0222	24.8	0.0026	<0.0000019	0.005	0.004		3.80	0.00113	2.47	<0.00002	34.0	0.432	47.6	0.000011	<0.005	<0.005	0.0018	<0.005	<0.005	<0.0001	4.0
RSEM-R6E-EOP	9/22/2021 10:45	AGR063	M	C171568	0.00074	<0.01	<0.0002	0.0211	25.0	0.0027	<0.0000019	0.0052	0.004		3.89	0.0013	2.46	<0.00002	33.7	0.434	48.0	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	2.1
RSEM-R6E-EOP	9/22/2021 10:55	AGR064	D	C171568	0.0006	<0.01	<0.0002	0.0218	25.6	0.003	<0.0000019	0.0052	0.004		3.92	0.00106	2.51	<0.00002	34.6	0.439	48.8	0.00001	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001	3.7
RSEM-R6E-EOP	9/23/2021 16:25	AGT564	M	C171954	0.00073	<0.01	<0.0002	0.0219	25.1	0.0017	<0.0000019	0.0056	0.0036		3.96	0.00068	2.58	<0.00002	33.8	0.39	48.3	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	9/24/2021 12:45	AGV849	M	C172263	0.00066	<0.01	<0.0002	0.0192	25.0	0.0014	<0.0000019	0.0063	0.0035		4.23	0.00063	3.21	<0.00002	33.5	0.409	45.7	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	9/25/2021 15:45	AGX495	M	C172580	0.00082	<0.01	<0.0002	0.0177	25.8	0.0022	<0.0000019	0.0062	0.0038		4.31	0.00138	2.63	<0.00002	32.4	0.396	64.2	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	3.6
RSEM-R6E-EOP	9/26/2021 15:10	AGX363	M	C172552	0.00081	<0.01	<0.0002	0.0162	24.3	0.0037	<0.0000019	0.0053	0.0036		3.83	0.00131	2.69	<0.00002	29.3	0.365	64.0	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	4.7
RSEM-R6E-EOP	9/26/2021 15:20	AGX364	D	C172552	0.00081	<0.01	<0.0002	0.0161	24.7	0.0035	<0.0000019	0.0054	0.0036		3.85	0.00125	2.69	<0.00002	29.7	0.367	63.6	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	4.9
RSEM-R6E-EOP	9/27/2021 11:30	AGZ867	M	C172958	0.00093	0.011	<0.0002	0.0153	23.2	0.0071	<0.0000019	0.0057	0.004		3.68	0.00067	3.03	<0.00002	27.2	0.362	42.7	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	6.0
RSEM-R6E-EOP	9/28/2021 11:00	AHC015	M	C173431	0.00089	<0.01	<0.0002	0.0165	24.5	0.0109	0.0000021	0.0064	0.0044		4.34	0.00066	3.28	<0.00002	27.8	0.461	40.0	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	4.1
RSEM-R6E-EOP	9/29/2021 12:00	AHF732	M	C174181	0.00096	<0.01	<0.0002	0.0164	18.0	0.0037	<0.0000019	0.0062	0.0046		4.29	0.00076	3.37	<0.00002	30.0	0.462	47.7	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	3.7
RSEM-R6E-EOP	9/30/2021 11:00	AHF782	M	C174188	0.00085	<0.01	<0.0002	0.0179	25.6	0.0017	0.0000022	0.0055	0.0045		3.94	0.00071	3.46	<0.00002	28.6	0.452	46.6	<0.00001	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001	3.1
RSEM-R6E-EOP	10/1/2021 12:00	AHF785	M	C174189	0.00087	0.011	<0.0002	0.0181	26.5	0.0014	<0.0000019	0.005	0.0044		3.70	0.00079	3.33	<0.00002	29.7	0.422	45.3	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	2.6
RSEM-R6E-EOP	10/2/2021 10:30	AHI562	M	C174687	0.0009	<0.01	<0.0002	0.0196	29.2	0.0014	<0.0000019	0.0049	0.0044		3.83	0.00079	3.5	<0.00002	31.6	0.462	47.0	<0.00001	<0.005	<0.005	0.002	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	10/3/2021 12:00	AHI566	M	C174689	0.00085	<0.01	<0.0002	0.017	26.7	0.0012	<0.0000019	0.0047	0.0039		3.63	0.00082	3.38	<0.00002	28.7	0.422	42.4	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	3.1
RSEM-R6E-EOP	10/4/2021 8:00	AHI553	M	C174685	0.00086	<0.01	<0.0002	0.0161	27.6	0.0014	<0.0000019	0.0047	0.0032		3.73	0.00059	3.39	<0.00002	28.9	0.413	44.6	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	3.4
RSEM-R6E-EOP	10/5/2021 14:20	AHO714	M	C175650	0.0007	<0.01	<0.0002	0.0123	22.5	0.0013	<0.0000019	0.0042	0.0034		3.26	0.00133	3.53	<0.00002	24.6	0.326	32.9	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	3.3
RSEM-R6E-EOP	10/5/2021 14:30	AHO715	D	C175650	0.0007	<0.01	<0.0002	0.0131	22.7	0.0013	0.0000024	0.0044	0.0033		3.26	0.00126	3.22	<0.00002	24.7	0.327	34.2	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001	3.5
RSEM-R6E-EOP	10/6/2021 11:20	AHR784	M	C176098	0.00071	<0.01	<0.0002	0.0112	18.5	<0.001	<0.0000019	0.0042	0.0032		3.19	0.00085	2.83	<0.00002	20.8	0.29	23.8	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	3.0
RSEM-R6E-EOP	10/7/2021 17:10	AHU809	M	C176559	0.00069	<0.01	<0.0002	0.0101	17.7	0.0014	<0.0000019	0.0045	0.0033		3.29	0.00085	2.82	<0.00002	20.2	0.29	25.0	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	3.5
RSEM-R6E-EOP	10/7/2021 17:20	AHU810	D	C176559	0.00067	<0.01	<0.0002	0.0102	17.5	0.0017	<0.0000019	0.0045	0.0031		3.23	0.00082	2.9	<0.00002	19.9	0.283	22.7	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	3.2
RSEM-R6E-EOP	10/8/2021 10:45	AHU797	M	C176557	0.00068	0.011	<0.0002	0.0101	17.7	0.0016	<0.0000019	0.0047	0.0033		3.40	0.00079	2.88	<0.00002	20.2	0.293	21.4	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001	3.9
RSEM-R6E-EOP	10/9/2021 11:40	AHX004	M	C176838	0.00064	<0.01	<0.0002	0.0118	19.2	0.0011	<0.0000019	0.0051	0.0031		3.19	0.00048	3.96	<0.00002	21.3	0.326	31.1	<0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	10/9/2021 11:50	AHX005	D	C176838	0.00064	<0.01	<0.0002	0.0118	19.6	0.0011	<0.0000019	0.005	0.0031		3.18	0.00049	3.92	<0.00002	21.2	0.322	31.5	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	10/10/2021 12:40	AHX000	M	C176837	0.00065	<0.01	<0.0002	0.0114	19.5	0.0011	<0.0000019	0.0048	0.0031		3.10	0.00051	3.88	<0.00002	20.9	0.317	30.8	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	10/11/2021 14:20	AHY659	M	C177084	0.00067	<0.01	<0.0002	0.0096	16.9	0.0016	<0.0000019	0.0048	0.0032		3.30	0.0008	2.86	<0.00002	19.2	0.271	18.1	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	3.6
RSEM-R6E-EOP	10/11/2021 14:30	AHY660	D	C177084	0.00067	<0.01	<0.0002	0.0099	17.0	0.0017	<0.0000019	0.0047	0.0032		3.31	0.00077	2.85	<0.00002	19.2	0.272	20.7	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	3.6
RSEM-R6E-EOP	10/12/2021 15:50	AIB243	M	C177600	0.00065	<0.01	<0.0002	0.0091	16.0	0.0013	0.0000019	0.0046	0.0031		3.06	0.00078	2.81	<0.00002	17.9	0.259	17.5	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	3.0
RSEM-R6E-EOP	10/13/2021 11:30	AIE373	M	C178189	0.00071	<0.01	<0.0002	0.01	16.8	0.0013	<0.0000019	0.0045	0.0029		3.16	0.00067	3.58	<0.00002	19.6	0.294	20.2	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	3.2
RSEM-R6E-EOP	10/13/2021 11:40	AIE374	D	C178189	0.00069	<0.01	<0.0002	0.0093	16.9	0.0013	<0.0000019	0.0046	0.0029		3.24	0.00023	3.63	<0.00002	3.39	0.3	<3.0	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	3.1
RSEM-R6E-EOP	10/14/2021 10:40	AIG808	M	C178651	0.00058	<0.01	<0.0002	0.0108	17.1	0.001	<0.0000019	0.0036	0.003		2.44	0.00082	2.5	<0.00002	17.6	0.236	11.3	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	3.0
RSEM-R6E-EOP	10/15/2021 11:00	AII740	M	C178993	0.00064	<0.01	<0.0002	0.0109	18.3	0.001	<0.0000019	0.004	0.003		2.67	0.00048	3.85	<0.00002	19.1	0.294	28.4	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	10/15/2021 11:10	AII741	D	C178993	0.00064	<0.01	<0.0002	0.0109	18.3	0.0011	<0.0000019	0.004	0.003		2.60	0.00048	3.79	<0.00002	18.7	0.297	27.1	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	2.6
RSEM-R6E-EOP	10/16/2021 14:20	AIL330	M	C179338	0.00058	<0.01	<0.0002	0.0109	18.2	0.0014	<0.0000019	0.0029	0.0026		2.32	0.00063	2.64	<0.00002	18.4	0.243	14.0	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	3.8
RSEM-R6E-EOP	10/17/2021 14:10	AIL266	M	C179325	0.00055	<0.01	<0.0002	0.0111	18.1	0.0013	<0.0000019	0.0028	0.0024		2.27	0.00049	2.66	<0.00002	18.5	0.235	25.1	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	3.3
RSEM-R6E-EOP	10/17/2021 14:20	AIL267	D	C179325	0.00056	<0.01	<0.0002	0.0112	18.2	0.0013	0.000002	0.0027	0.0025		2.28	0.00048	2.67	<0.00002	18.3	0.235	26.0	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	3.3
RSEM-R6E-EOP	10/18/2021 9:55	AIL342	M	C179344	0.00053	<0.01	<0.0002	0.0109	17.6	0.0011	<0.0000019	0.0025	0.0025		2.11	0.00069	2.63	<0.00002	17.8	0.234	12.4	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	3.0
RSEM-R6E-EOP	10/19/2021 12:00	AIR751	M	C180384	0.00051	<0.01	<0.0002	0.0112	18.9	<0.001	<0.0000019	0.0025	0.0023		2.18	0.0006	2.7	<0.00002	23.0	0.235	19.7	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	10/20/2021 12:00	AIT534	M	C180689	0.00056	<0.01	<0.0002	0.0111	18.0	<0.001	<0.0000019	0.0027	0.0026		2.18	0.00047	3.34	<0.00002	18.5	0.263	24.6	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	2.9
RSEM-R6E-EOP	10/21/2021 12:00	AIW012	M	C181069	0.00054	<0.01	<0.0002	0.0114	18.7	<0.001	0.0000023	0.0027	0.0025		2.17	0.0005	3.39	<0.00002	19.7	0.26	25.7	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	2.2
RSEM-R6E-EOP	10/22/2021 10:00	AIW017	M	C181072	0.00054	<0.01	<0.0002	0.012	18.8	<0.001	<0.0000019	0.0027	0.0025		2.17	0.00051	3.35	<0.00002	20.1	0.268	26.3	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	10/23/2021 10:30	AIZ371	M	C181550	0.00054	<0.01	<0.0002	0.0118	18.7	<0.001	<0.0000019	0.0027	0.0024		2.25	0.00056	3.48	<0.00002	21.7	0.269	25.8	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	2.8
RSEM-R6E-EOP	10/24/2021 11:00	AIZ351	M	C181544	0.00053	<0.01	<0.0002	0.0126	19.5	0.0017	<0.0000019	0.0028	0.0027		2.39	0.00053	3.4	<0.00002	23.7	0.283	27.4	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	10/25/2021 5:30	AIZ358	M	C181547	0.00051	<0.01	<0.0002	0.016	22.4	0.0072	<0.0000019	0.003	0.003		2.83	0.00081	3.3	<0.00002	29.9	0.324	32.9	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	2.9
RSEM-R6E-EOP	10/26/2021 10:20	AJF136	M	C182473	<0.0005	<0.01	<0.0002	0.0167	25.0	0.0029	<0.0000019	0.0031	0.0029		2.91	0.00093	3.23	<0.00002	31.8	0.356	37.0	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	2.9
RSEM-R6E-EOP	10/26/2021 10:30	AJF137	D	C182473	<0.0005	<0.01	<0.0002	0.0168	25.1	0.0026	<0.0000019	0.0031	0.003		2.89	0.00095	3.25	<0.00002	32.0	0.369	37.6	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	24
RSEM-R6E-EOP	10/27/2021 14:30	AJH724	M	C182990	<0.0005	<0.01	<0.0002	0.0177	26.3	<0.001	<0.0000019	0.0033	0.0027		2.98	0.00111	3.02	<0.00002	33.6	0.377	39.1	<0.00001	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001	2.6
RSEM-R6E-EOP	10/28/2021 15:30	AJL907	M	C183658	<0.0005	<0.01	<0.0002	0.0192	24.7	<0.001	<0.0000019	0.0032	0.0027		2.82	0.00103	2.77	<0.00002	32.3	0.343	37.7	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	10/28/2021 15:40	AJL908	D	C183658	<0.0005	<0.01	<0.0002	0.019	24.3	<0.001	<0.0000019	0.0031	0.0027		2.79	0.00102	2.7	<0.00002	31.6	0.339	36.4	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	10/29/2021 11:10	AJL060	M	C183557	<0.0005	<0.01	<0.0002	0.0194	24.2	<0.001	<0.0000019	0.0031	0.0027		2.82	0.001	2.75	<0.00002	31.4	0.346	36.9	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	10/30/2021 11:50	AJO162	M	C184013	<0.0005	<0.01	<0.0002	0.0192	26.1	0.0013	<0.0000019	0.0034	0.0028		3.10	0.00109	2.66	<0.00002	36.2	0.378	35.2	<0.00001	<0.005	<0.005	0.00212	<0.005	<0.005	<0.0001	4.1
RSEM-R6E-EOP	10/30/2021 12:00	AJO163	D	C184013	<0.0005	<0.01	<0.0002	0.0189	25.5	0.0013	<0.0000019	0.0033	0.0028		2.96	0.00108	2.54	<0.00002	35.3	0.371	35.5	<0.00001	<0.005	<0.005	0.0021	<0.005	<0.005	<0.0001	3.4
RSEM-R6E-EOP	10/31/2021 11:40	AJO160	M	C184012	<0.0005	<0.01	<0.0002	0.0199	25.6	0.0013	<0.0000019	0.0035	0.0027		3.05	0.00107	2.64	<0.00002	37.4	0.378	35.1	<0.00001	<0.005	<0.005	0.00224	<0.005	<0.005	<0.0001	3.5
RSEM-R6E-EOP	11/1/2021 14:10	AJS226	M	C184600	<0.0005	<0.01	<0.0002	0.0185	22.2	0.0011	<0.0000019	0.0035	0.0023		2.98	0.00153	2.48	<0.00002	33.1	0.349	39.5	<0.00001	<0.005	<0.005	0.00195	<0.005	<0.005	<0.0001	1.9
RSEM-R6E-EOP	11/1/2021 14:20	AJS227	D	C184600	<0.0005	<0.01	<0.0002	0.02	22.2	0.0012	<0.0000019	0.0036	0.0024		3.06	0.00152	2.46	<0.00002	33.3	0.354	38.9	<0.00001	<0.005	<0.005	0.00198	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-EOP	11/2/2021 14:45	AJU789	M	C184881	<0.0005	<0.01	<0.0002	0.0214	23.1	0.001	<0.0000019	0.0036	0.0023		3.03	0.00152	2.58	<0.00002	36.0	0.341	30.8	<0.00001	<0.005	<0.005	0.00209	<0.005	<0.005	0.00025	2.3
RSEM-R6E-EOP	11/3/2021 12:10	AJX282	M	C185315	<0.0005	<0.01	<0.0002	0.0211	23.4	<0.001	<0.0000019	0.0036	0.0026		2.98	0.00157	2.56	<0.00002	35.7	0.34	22.9	<0.00001	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001	2.6
RSEM-R6E-EOP	11/3/2021 12:20	AJX283	D	C185315	<0.0005	<0.01	<0.0002	0.0211	24.0	<0.001	<0.0000019	0.0036	0.0027		3.06	0.00159	2.54	<0.00002	36.7	0.344	25.0	<0.00001	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001	2.1
RSEM-R6E-EOP	11/4/2021 10:55	AKA061	M	C185756	<0.0005	<0.01	<0.0002	0.0214	22.4	0.0011	<0.0000019	0.0036	0.0026		3.03	0.00155	2.52	<0.00002	34.5	0.339	20.1	<0.00001	<0.005	<0.005	0.0023	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	11/5/2021 11:05	AKA064	M	C185757	<0.0005	<0.01	<0.0002	0.0213	23.6	0.006	<0.0000019	0.0038	0.0031		3.13	0.00139	2.65	<0.00002	38.2	0.353	22.3	<0.00001	<0.005	<0.005	0.00232	<0.005	<0.005	<0.0001	2.4
RSEM-R6E-EOP	11/5/2021 11:15	AKA065	D	C185757	<0.0005	<0.01	<0.0002	0.0215	22.2	0.0057	0.000004	0.0037	0.003		3.06	0.00136	2.62	<0.00002	36.0	0.345	21.3	<0.00001	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001	2.4

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6E-EOP	11/6/2021 10:55	AKD992	M	C186250	0.00053	<0.01	<0.0002	0.0237	23.2	0.01	<0.0000019	0.0042	0.0034		3.78	0.0013	2.52	<0.00002	38.6	0.41	21.9	<0.00001	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	1.7
RSEM-R6E-EOP	11/7/2021 10:35	AKD997	M	C186252	0.00056	<0.01	<0.0002	0.025	23.9	0.0143	<0.0000019	0.0047	0.0042		4.41	0.00129	2.51	<0.00002	39.5	0.471	24.4	<0.00001	<0.005	<0.005	0.0022	<0.005	<0.005	<0.0001	1.7
RSEM-R6E-EOP	11/7/2021 10:45	AKD998	D	C186252	0.00057	<0.01	<0.0002	0.0244	24.0	0.0142	<0.0000019	0.0047	0.0043		4.43	0.0013	2.5	<0.00002	39.5	0.472	25.1	<0.00001	<0.005	<0.005	0.00221	<0.005	<0.005	<0.0001	2.0
RSEM-R6E-EOP	11/8/2021 10:30	AKD974	M	C186247	0.00067	<0.01	<0.0002	0.026	24.6	0.0179	<0.0000019	0.005	0.0059		4.87	0.00125	2.5	<0.00002	40.0	0.57	30.0	0.000011	<0.005	<0.005	0.00223	<0.005	<0.005	<0.0001	2.5
RSEM-R6E-EOP	11/9/2021 11:30	AKJ862	M	C187047	0.00069	<0.01	<0.0002	0.025	24.8	0.0122	<0.0000019	0.0048	0.0063		4.77	0.00152	2.65	<0.00002	40.3	0.531	33.8	<0.00001	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001	2.0
RSEM-R6E-EOP	11/10/2021 12:00	AKN274	M	C187468	0.00066	<0.01	<0.0002	0.0238	24.5	0.0132	<0.0000019	0.0047	0.0068		4.43	0.00126	2.36	<0.00002	41.0	0.534	30.5	<0.00001	<0.005	<0.005	0.00243	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	11/11/2021 10:30	AKN227	M	C187460	0.00066	<0.01	<0.0002	0.024	24.2	0.0178	<0.0000019	0.0047	0.0069		4.20	0.0013	2.36	<0.00002	40.3	0.517	30.3	<0.00001	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001	1.5
RSEM-R6E-EOP	11/12/2021 10:30	AKN246	M	C187463	0.00066	<0.01	<0.0002	0.0238	24.0	0.0188	<0.0000019	0.0048	0.0071		4.13	0.00131	2.38	<0.00002	40.4	0.507	30.0	0.000011	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001	1.4
RSEM-R6E-EOP	11/13/2021 10:30	AKS759	M	C188237	0.00073	<0.01	<0.0002	0.0241	23.7	0.0229	<0.0000019	0.0048	0.0083		4.24	0.00144	2.8	<0.00002	42.5	0.482	37.6	0.000011	<0.005	<0.005	0.00247	<0.005	<0.005	<0.0001	0.80
RSEM-R6E-EOP	11/14/2021 10:30	AKS790	M	C188243	0.00079	<0.01	<0.0002	0.0243	24.6	0.0202	<0.0000019	0.0049	0.0082		4.35	0.00147	2.84	<0.00002	43.6	0.498	37.2	0.000011	<0.005	<0.005	0.00255	<0.005	<0.005	<0.0001	0.77
RSEM-R6E-EOP	11/15/2021 6:00	AKS804	M	C188248	0.00079	<0.01	<0.0002	0.024	24.1	0.02	<0.0000019	0.005	0.0084		4.29	0.00142	2.8	<0.00002	43.7	0.488	33.3	0.000011	<0.005	<0.005	0.00252	<0.005	0.0055	<0.0001	0.78
RSEM-R6E-EOP	11/16/2021 14:40	AKV418	M	C188704	0.00081	<0.01	<0.0002	0.0258	25.4	0.0185	<0.0000019	0.0048	0.0082		4.62	0.00118	2.77	<0.00002	45.2	0.48	33.2	0.000011	<0.005	<0.005	0.00246	<0.005	<0.005	<0.0001	0.84
RSEM-R6E-EOP	11/16/2021 14:50	AKV419	D	C188704	0.0008	<0.01	<0.0002	0.026	26.0	0.0186	<0.0000019	0.0049	0.0081		4.66	0.00127	2.83	<0.00002	46.2	0.482	34.3	0.000011	<0.005	<0.005	0.00246	<0.005	<0.005	<0.0001	0.87
RSEM-R6E-EOP	11/17/2021 11:05	AKY309	M	C189131	0.00086	<0.01	<0.0002	0.026	30.9	0.0214	<0.0000019	0.0055	0.0101		4.90	0.00149	3.06	<0.00002	51.3	0.589	48.9	0.00001	<0.005	<0.005	0.00249	<0.005	0.0055	<0.0001	0.87
RSEM-R6E-EOP	11/18/2021 10:30	AKZ640	M	C189345	0.00081	<0.01	<0.0002	0.0256	28.5	0.0236	<0.0000019	0.0056	0.0095		4.59	0.00146	3.07	<0.00002	48.9	0.561	48.5	0.00001	<0.005	<0.005	0.00236	<0.005	0.0057	<0.0001	1.0
RSEM-R6E-EOP	11/18/2021 10:40	AKZ641	D	C189345	0.00081	<0.01	<0.0002	0.0253	29.2	0.0241	<0.0000019	0.0056	0.01		4.66	0.00141	3.1	<0.00002	50.0	0.563	49.0	<0.00001	<0.005	<0.005	0.00236	<0.005	0.0059	<0.0001	1.1
RSEM-R6E-EOP	11/19/2021 10:45	AKZ638	M	C189344	0.00075	<0.01	<0.0002	0.0258	25.0	0.038	0.0000026	0.0056	0.0107		3.88	0.00135	3.06	<0.00002	43.1	0.482	42.4	0.000011	<0.005	<0.005	0.00241	<0.005	0.008	<0.0001	1.3
RSEM-R6E-EOP	11/20/2021 10:10	ALR014	M	C192879	0.00099	<0.01	<0.0002	0.0381	28.6	0.0584	<0.0000019	0.0074	0.0151		5.69	0.00152	4.03	<0.00002	51.1	0.679	48.3	0.000014	<0.005	<0.005	0.00296	<0.005	0.0116	<0.0001	2.0
RSEM-R6E-EOP	11/20/2021 10:20	ALR015	D	C192879	0.00126	<0.01	<0.0002	0.0457	36.6	0.0683	<0.0000019	0.0084	0.0184		6.25	0.00171	6.28	<0.00002	69.5	0.746	72.1	0.000018	<0.005	<0.005	0.00358	<0.005	0.0137	<0.0001	2.5
RSEM-R6E-EOP	11/21/2021 10:00	ALT347	M	C193212	0.00124	<0.01	<0.0002	0.0472	35.1	0.0689	<0.0000019	0.0105	0.0184		6.11	0.00189	5.13	<0.00002	73.0	0.694	68.7	0.000016	<0.005	<0.005	0.00342	<0.005	0.0128	<0.0001	2.8
RSEM-R6E-EOP	11/22/2021 10:35	ALQ579	M	C192775	0.00089	<0.01	<0.0002	0.0297	20.2	0.0496	<0.0000019	0.0074	0.011		4.23	0.00131	3.46	<0.00002	41.6	0.484	31.7	0.000012	<0.005	<0.005	0.00217	<0.005	0.0097	<0.0001	2.8
RSEM-R6E-EOP	11/22/2021 10:45	ALQ580	D	C192775	0.00078	<0.01	<0.0002	0.0291	20.6	0.0503	<0.0000019	0.0067	0.0112		4.29	0.00129	3.38	<0.00002	42.0	0.492	30.2	0.000011	<0.005	<0.005	0.0022	<0.005	0.0091	<0.0001	3.1
RSEM-R6E-EOP	11/23/2021 10:05	ALN415	M	C192217	0.0009	<0.01	<0.0002	0.0381	33.4	0.0613	<0.0000019	0.0084	0.0139		5.50	0.00166	4.96	<0.00002	72.4	0.612	49.0	0.000014	<0.005	<0.005	0.00293	<0.005	0.0102	<0.0001	2.9
RSEM-R6E-EOP	11/24/2021 10:25	ALQ701	M	C192806	0.00076	<0.01	<0.0002	0.0291	20.8	0.0369	<0.0000019	0.0063	0.0108		4.25	0.00127	3.44	<0.00002	42.3	0.495	34.3	<0.00001	<0.005	<0.005	0.00212	<0.005	0.0076	<0.0001	2.3
RSEM-R6E-EOP	11/24/2021 10:35	ALQ702	D	C192806	0.00076	<0.01	<0.0002	0.0293	20.4	0.0362	<0.0000019	0.0062	0.0106		4.20	0.00125	3.46	<0.00002	41.5	0.469	31.4	0.000013	<0.005	<0.005	0.0021	<0.005	0.0075	<0.0001	2.6
RSEM-R6E-EOP	11/25/2021	FJ2101334-001	M	FJ2101334	0.00072	<0.010	<0.000050	0.0249	25.0	0.0305	<0.0000050	0.00550	0.0092	<0.050	3.71	0.00118	3.72	<0.000010	51.6	0.453	44.1	<0.000010	<0.00010	<0.00030	0.00197	<0.00050	0.0065	<0.00020	1.17
RSEM-R6E-EOP	11/26/2021 10:00	FJ2101337-001	M	FJ2101337	0.00073	<0.010	<0.000050	0.0253	25.6	0.0517	<0.0000050	0.00526	0.0105	<0.050	3.96	0.00105	3.88	<0.000010	54.7	0.481	47.7	<0.000010	<0.00010	<0.00030	0.00209	<0.00050	0.0074	<0.00020	0.83
RSEM-R6E-EOP	11/26/2021 10:10	FJ2101337-002	D	FJ2101337	0.00076	<0.010	<0.000050	0.0253	26.2	0.0527	<0.0000050	0.00513	0.0105	<0.050	3.97	0.00122	3.83	<0.000010	54.0	0.479	47.0	<0.000010	<0.00010	<0.00030	0.00200	<0.00050	0.0075	<0.00020	0.99
RSEM-R6E-EOP	11/27/2021 10:30	FJ2101340-001	M	FJ2101340	0.00073	<0.010	<0.000050	0.0266	27.3	0.0770	<0.0000050	0.00530	0.0120	<0.050	4.33	0.00129	3.82	<0.000010	52.8	0.479	46.0	<0.000010	<0.00010	<0.00030	0.00214	<0.00050	0.0101	<0.00020	0.94
RSEM-R6E-EOP	11/28/2021 10:00	FJ2101338-001	M	FJ2101338	0.00075	<0.010	<0.000050	0.0277	28.5	0.0780	<0.0000050	0.00541	0.0126	<0.050	4.47	0.00162	3.83	<0.000010	55.4	0.498	47.5	0.000011	<0.00010	<0.00030	0.00232	<0.00050	0.0099	<0.00020	1.04
RSEM-R6E-EOP	11/28/2021 10:10	FJ2101338-002	D	FJ2101338	0.00065	<0.010	<0.000050	0.0269	29.2	0.0743	<0.0000050	0.00558	0.0122	<0.050	4.52	0.00167	4.04	<0.000010	56.0	0.483	55.0	<0.000010	<0.00010	<0.00030	0.00233	<0.00050	0.0086	<0.00020	1.03
RSEM-R6E-EOP	11/29/2021 9:45	FJ2101339-001	M	FJ2101339	0.00079	<0.010	<0.000050	0.0293	30.2	0.0824	<0.0000050	0.00551	0.0128	<0.050	4.63	0.00164	3.95	<0.000010	57.3	0.514	49.5	0.000011	<0.00010	<0.00030	0.00244	<0.00050	0.0089	<0.00020	0.92
RSEM-R6E-EOP	11/30/2021 12:00	FJ2101361-001	M	FJ2101361	0.00078	<0.010	<0.000050	0.0316	31.4	0.0628	<0.0000050	0.00545	0.0118	<0.050	4.68	0.00172	3.89	<0.000010	56.4	0.505	62.2	<0.000010	<0.00010	<0.00030	0.00251	<0.00050	0.0075	<0.00020	1.20
RSEM-R6E-EOP	12/1/2021 12:00	FJ2101362-001	M	FJ2101362	0.00074	<0.010	<0.000050	0.0298	29.1	0.0675	<0.0000050	0.00553	0.0111	<0.050	4.55	0.00197	3.86	<0.000010	56.7	0.521	57.5	<0.000010	<0.00010	<0.00030	0.00290	<0.00050	0.0078	<0.00020	1.63
RSEM-R6E-EOP	12/2/2021 11:30	FJ2101375-001	M	FJ2101375	0.00052	<0.010	<0.000050	0.0354	32.5	0.00944	<0.0000050	0.00554	0.0093	<0.050	4.69	0.00238	3.97	<0.000010	63.8	0.542	64.9	<0.000010	0.00010	<0.00030	0.00296	<0.00050	<0.0010	<0.00020	1.48
RSEM-R6E-EOP	12/3/2021 11:00	FJ2101374-001	M	FJ2101374	0.00048	<0.010	<0.000050	0.0346	34.9	0.00536	<0.0000050	0.00523	0.0094	<0.050	4.84	0.00215	3.96	<0.000010	62.2	0.555	70.0	<0.000010	0.00012	<0.00030	0.00325	<0.00050	<0.0010	<0.00020	1.19
RSEM-R6E-EOP	12/4/2021 11:00	FJ2101385-001	M	FJ2101385	0.00085	<0.010	<0.000050	0.0332	36.2	0.0314	<0.0000050	0.00553	0.0111	<0.050	4.80	0.00254	4.03	<0.000010	62.0	0.567	70.2	0.000010	0.00011	<0.00030	0.00342	<0.00050	0.0047	<0.00020	0.58
RSEM-R6E-EOP	12/8/2021 11:00	FJ2101419-001	M	FJ2101419	0.00069	<0.010	<0.000050	0.0349	39.0	0.0140	<0.0000050	0.00558	0.0107	<0.050	5.05	0.00231	3.82	<0.000010	66.3	0.587	76.7	<0.000010	0.00012	<0.00030	0.00368	<0.00050	0.0031	<0.00020	0.84
RSEM-R6E-EOP	12/9/2021 10:05	FJ2101442-001	M	FJ2101442	0.00058	<0.010	<0.000050	0.0342	35.3	0.0197	<0.0000050	0.00521	0.0095	<0.050	4.44	0.00251	3.94	<0.000010	59.0	0.566	74.1	<0.000010	0.00014	<0.00030	0.00388	<0.00050	0.0050	<0.00020	0.53
RSEM-R6E-EOP	12/9/2021 10:15	FJ2101442-002	D	FJ2101442	0.00059	<0.010	<0.000050	0.0373	40.1	0.0209	<0.0000050	0.00539	0.0101	<0.050	5.08	0.00256	4.02	<0.000010	62.9	0.577	77.0	<0.000010	0.00016	<0.00030	0.00377	<0.00050	0.0049	<0.00020	0.50
RSEM-R6E-EOP	12/10/2021 10:45	FJ2101436-001	M	FJ2101436	0.00066	0.018	<0.000050	0.0360	38.1	0.0190	<0.0000050	0.00543	0.0104	<0.050	4.98	0.00267	4.13	<0.000010	63.8	0.567	76.8	<0.000010	0.00015	0.00048	0.00362	<0.00050	0.0058	<0.00020	0.48
RSEM-R6E-EOP	12/11/2021 13:40	FJ2101439-001	M	FJ2101439	0.00059	<0.010	<0.000050	0.0366	39.4	0.0127	<0.0000050	0.00522	0.0091	<0.050	4.99	0.00248	3.92	<0.000010	62.3	0.576	78.4	<0.000010	0.00014	<0.00030	0.00378	<0.00050	0.0031	<0.00020	0.75
RSEM-R6E-EOP	12/11/2021 13:50	FJ2101439-002	D	FJ2101439	0.00065	<0.010	<0.000050	0.0354	39.6	0.0126	<0.0000050	0.00521	0.009	<0.050	5.00	0.00275	3.90	<0.000010	62.8	0.572	78.4	<0.000010	0.00014	<0.00030	0.00389	<0.00050	0.0031	<0.00020	0.68
RSEM-R6-EP-US-SD	3/17/2021 13:35	ZM7316	M	C117752	0.00144	<0.01	<0.0002	0.0154	11.7	0.103	<0.0000019	0.0038	0.0064		3.16	0.00054	2.08	<0.00002	31.9	0.289	44.4	0.00002	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	2000
RSEM-R6-EP-US-SD	5/19/2021 11:30	ZV3571	M	C134016	0.00052	<0.01	<0.0002	0.0239	18.0	0.0032	<0.0000019	0.006	0.0033		3.58	0.00095	3.8	<0.00002	60.2	0.455	40.5	0.000011	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	6.3
RSEM-R6-EP-US-SD	7/20/2021 13:55	ACH817	M	C152456	0.00166	0.059	<0.0002	0.0507	33.5	0.0161	<0.0000019	0.0046	0.0054		9.79	0.00214	2.52	<0.00002	35.7	2.16	93.3	0.000035	<0.005	<0.005	0.00526	<0.005	<0.005	0.00013	>4000
RSEM-R6E-SP	2/3/2021 14:30	ZG9146	M	C107662	0.00132	<0.01	<0.0002	0.0161	20.1	0.0468	<0.0000019	0.0055	0.0028		3.10	0.00099	4.69	<0.00002	55.3	0.28	36.6	<0.00001	<0.005	<0.005	0.00191	<0.005	0.0113	<0.0001	2.9
RSEM-R6E-SP	2/3/2021 14:40	ZG9147	D	C107662	0.00112	<0.01	<0.0002	0.0161	20.0	0.0474	<0.0000019	0.0059	0.0028		3.17	0.00097	4.59	<0.00002	55.6	0.293	36.5	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0116	<0.0001	2.7
RSEM-R6E-SP	2/4/2021 13:30	ZH1010	M	C107961	0.00151	<0.01	<0.0002	0.0163	20.5	0.037	<0.0000019	0.006	0.0027		3.14	0.00099	4.68	<0.00002	60.4	0.278	38.1	<0.00001	<0.005	<0.005	0.00197	<0.005	0.01	<0.0001	2.3
RSEM-R6E-SP	2/5/2021 13:50	ZH1013	M	C107964	0.00106	<0.01	<0.0002	0.0165	22.0	0.0554	<0.0000019	0.0054	0.0032		3.10	0.00095	4.59	<0.00002	57.8	0.3	38.1	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0091	<0.0001	1.7
RSEM-R6E-SP	2/8/2021 10:30	ZH3062	M	C108279	0.00179	<0.01	<0.0002	0.0157	20.9	0.0412	<0.0000019	0.006	0.0032		3.30	0.00101	4.09	<0.00002	59.2	0.311	38.3	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0109	<0.0001	2.7
RSEM-R6E-SP	2/16/2021 14:00	ZI2028	M	C110128	0.00109	<0.01	<0.0002	0.0168	21.8	0.0612	<0.0000019	0.0056	0.0034		3.24	0.00092	4.64	<0.00002	58.7	0.29	38.5	<0.00001	<0.005	<0.005	0.00196	<0.005	0.0083	<0.0001	2.2
RSEM-R6E-SP	2/26/2021 14:10	ZJ8523	M	C112618	0.00157	<0.01	<0.0002	0.0129	14.7	0.0526	<0.0000019	0.0059	0.0037		3.88	0.00066	3.58	<0.00002	44.1	0.282	28.5	<0.00001	<0.005	<0.005	0.00132	<0.005	0.0122	<0.0001	2.1
RSEM-R6E-SP	2/27/2021 13:00	ZK1992	M	C113050	0.00362	<0.01	<0.0002	0.0136	14.0	0.0608	<0.0000019	0.0068	0.0041		4.14	0.0007	3.59	<0.00002	42.8	0.329	28.4	<0.00001	<0.005	<0.005	0.00132	<0.005	0.0296	<0.0001	2.2
RSEM-R6E-SP	3/12/2021 12:35	ZM0346	M	C116306	0.00199	<0.01	<0.0002	0.0133	14.7	0.0756	<0.0000019	0.0046	0.0022		2.46	0.00096	2.98	<0.00002	41.3	0.275	39.5	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	0.35
RSEM-R6E-SP	3/14/2021 12:45	ZM2397	M	C116750	0.00296	<0.01	<0.0002	0.0131	14.5	0.0566	<0.0000019	0.0047	0.0021		2.57	0.00102	2.5	<0.00002	40.2	0.264	40.1	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	1.6
RSEM-R6E-SP	3/25/2021 15:30	ZN6324	M	C119610	0.00209	<0.01	<0.0002	0.0103	8.35	0.0397	<0.0000019	0.0038	0.0045		2.96	0.00063	1.6	<0.00002	25.4	0.266	22.3	0.00001	<0.005	<0.005	0.00081	<0.005	0.0064	<0.0001	0.75
RSEM-R6E-SP	6/1/2021 11:15	ZX3970	M	C137816	0.00107	<0.01	<0.0002	0.0296	23.7	0.001	<0.0000019	0.0076	0.0017		7.41	0.00142	<0.1	<0.00002	57.9	2.11	45.2	0.000023	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.86
RSEM-R6E-SP	6/2/2021 12:55	ZX5270	M	C138096	0.00108	<0.01	<0.0002	0.0281	24.1	<0.001	<0.0000019	0.0071	0.0016		7.26	0.00142	<0.1	<0.00002	58.4	1.97	44.6	0.000022	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.97
RSEM-R6E-SP	6/3/2021 11:50	ZX7151	M	C138404	0.00128	<0.01	<0.0002	0.0291	23.6	0.0014	<0.0000019	0.0073	0.0015		7.15	0.00139	<0.1	<0.00002	58.1	2.04	43.5	0.000022	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.96
RSEM-R6E-SP	6/4/2021 11:20	ZX6906	M	C138357	0.0012	<0.01	<0.0002	0.03	23.3	0.0013	<0.0000019	0.0074	0.0015		7.00	0.0014	<0.1	<0.00002	57.7	1.99	43.9	0.000021	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.90
RSEM-R6E-SP	6/12/2021 10:40	ZZ1988	M	C141056	0.00083	<0.01	<0.0002	0.0278	24.8	<0.001	<0.0000019	0.0071	0.0014		5.82	0.00186	<0.1	<0.00002	60.3	1.39	50.5	0.000016	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-SP	6/13/2021 14:30	ZZ1993	M	C141057	0.00083	<0.01	<0.0002	0.027	24.7	<0.001	<0.0000019	0.0069	0.0013		5.70	0.00188	<0.1	<0.00002	60.2	1.36	51.4	0.000015	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.42
RSEM-R6E-SP	6/14/2021 10:55	ZZ2009	M	C141059	0.00122	<0.01	<0.0002	0.0275	25.3	0.0014	<0.0000019	0.0071	0.0013		5.64	0.00185	<0.1	<0.00002	61.0	1.35	50.0	0.000015	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001	0.91
RSEM-R6E-SP	6/22/2021 13:40	AAL815	M	C144319	0.00073	<0.01	<0.0002	0.0257	22.8	<0.001	<0.0000019	0.0069	0.0012		6.37	0.00245	<0.1	<0.00002	56.0	1.16	23.0	0.000011	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.52
RSEM-R6E-SP	6/23/2021 15:00	AAO112	M	C144722	0.00122	0.012	<0.0002	0.0277	22.8	<0.001	<0.0000019	0.0073	0.0013		5.83	0.0033	<0.1	<0.00002	54.0	1.02	31.4	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.59
RSEM-R6E-SP	6/24/2021 15:00	AAQ177	M	C144970	0.0009	<0.01	<0.0002	0.031	20.9	0.0011	<0.0000019	0.0069	0.0012		5.82	0.00223	<0.1	<0.00002	50.3	1	26.5	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	0.79
RSEM-R6E-SP	6/25/2021 13:40	AAP489	M	C144894	0.00076	<0.01	<0.0002	0.0314	20.5	<0.001	0.0000028	0.0066	0.0012		5.68	0.00191	<0.1	<0.00002	49.2	0.975	26.9	0.000011	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001	0.50
RSEM-R6E-SP	6/26/2021 14:50	AAU432	M	C145599	0.00096	<0.01	<0.0002	0.036	26.7	0.0013	<0.0000019	0.0084	0.0015		6.96	0.0022	<0.1	<0.00002	63.8	1.18	40.9	0.000012	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	1.2

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6E-SP	6/27/2021 13:35	AAU319	M	C145583	0.00101	<0.01	<0.0002	0.0336	24.9	0.0013	0.0000039	0.008	0.0014		6.50	0.00223	<0.1	<0.00002	59.3	1.1	38.3	0.000013	<0.005	<0.005	0.00177	<0.005	0.0085	<0.0001	0.58
RSEM-R6E-SP	6/28/2021 14:00	AAX136	M	C146134	0.00105	<0.01	<0.0002	0.0383	29.0	<0.001	<0.0000019	0.0094	0.0016		7.58	0.00288	<0.1	<0.00002	69.8	1.29	34.5	0.000014	<0.005	<0.005	0.00211	<0.005	<0.005	<0.0001	0.43
RSEM-R6E-SP	6/29/2021 15:30	AAZ027	M	C146532	0.00097	0.012	<0.0002	0.032	26.5	0.0026	<0.0000019	0.0081	0.0012		6.67	0.00158	0.109	<0.00002	60.2	1.21	58.6	0.000014	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	0.47
RSEM-R6E-SP	6/30/2021 11:20	AAZ002	M	C146528	0.00094	0.013	<0.0002	0.0315	27.1	0.0041	<0.0000019	0.0081	0.0015		6.76	0.0014	0.171	<0.00002	62.5	1.17	57.4	0.000014	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	0.44
RSEM-R6E-SP	7/1/2021 15:40	ABB251	M	C146903	0.00098	0.014	<0.0002	0.0339	25.9	0.0097	<0.0000019	0.0081	0.0015		6.95	0.00136	0.326	<0.00002	59.7	1.23	57.1	0.000013	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	0.82
RSEM-R6E-SP	7/2/2021 12:25	ABB257	M	C146905	0.00103	0.028	<0.0002	0.0401	30.1	0.0308	0.0000021	0.0088	0.0021		7.37	0.00183	0.412	<0.00002	69.6	1.16	66.8	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.91
RSEM-R6E-SP	7/3/2021 9:25	ABE023	M	C147272	0.00122	0.038	<0.0002	0.0397	30.3	0.0345	<0.0000019	0.0089	0.0025		7.58	0.00154	0.52	<0.00002	71.2	1.17	60.8	<0.00001	<0.005	<0.005	0.00196	<0.005	<0.005	<0.0001	0.80
RSEM-R6E-SP	7/4/2021 14:00	ABD994	M	C147267	0.00089	0.05	<0.0002	0.0405	28.4	0.0102	0.000002	0.0083	0.0023		7.19	0.00148	0.565	<0.00002	65.8	1.14	91.5	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	0.67
RSEM-R6E-SP	7/5/2021 9:50	ABG200	M	C147674	0.00095	0.043	<0.0002	0.0419	28.9	0.0169	<0.0000019	0.0087	0.0028		6.97	0.00139	0.624	<0.00002	67.9	1.07	64.0	<0.00001	<0.005	<0.005	0.00181	<0.005	0.0065	<0.0001	0.83
RSEM-R6E-SP	7/6/2021 10:40	ABJ178	M	C148228	0.00056	0.017	<0.0002	0.0333	25.9	0.0025	<0.0000019	0.0086	0.0019		7.50	0.00151	0.684	<0.00002	62.1	1.34	56.3	0.000011	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.67
RSEM-R6E-SP	7/7/2021 12:00	ABK531	M	C148516	<0.0005	0.017	<0.0002	0.0336	24.8	0.0031	<0.0000019	0.0085	0.0016		7.72	0.00135	0.716	<0.00002	59.6	1.39	57.2	0.000011	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	0.67
RSEM-R6E-SP	7/8/2021 12:00	ABM760	M	C148925	0.00053	0.017	<0.0002	0.0333	27.0	0.0053	<0.0000019	0.0084	0.0018		7.85	0.00123	0.745	<0.00002	64.9	1.31	55.7	0.000012	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	0.65
RSEM-R6E-SP	7/9/2021 10:10	ABM747	M	C148923	0.00052	0.015	<0.0002	0.0332	26.7	0.0064	<0.0000019	0.0084	0.0018		7.79	0.00138	0.788	<0.00002	65.2	1.28	55.4	0.000013	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	0.72
RSEM-R6E-SP	7/10/2021 10:30	ABP527	M	C149429	<0.0005	0.021	<0.0002	0.0332	26.3	0.0285	<0.0000019	0.0082	0.002		7.69	0.0011	0.899	<0.00002	63.3	1.27	56.6	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-SP	7/11/2021 10:30	ABP672	M	C149459	0.00051	0.026	<0.0002	0.0335	27.1	0.0156	<0.0000019	0.0082	0.0021		8.08	0.0013	0.936	<0.00002	66.6	1.29	55.3	0.000011	<0.005	<0.005	0.00107	<0.005	<0.005	<0.0001	1.1
RSEM-R6E-SP	7/12/2021 5:00	ABP853	M	C149486	<0.0005	0.023	<0.0002	0.0337	26.9	0.0099	<0.0000019	0.0083	0.002		7.91	0.00112	0.943	<0.00002	65.8	1.26	56.9	0.000011	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	0.98
RSEM-R6E-SP	7/15/2021 15:55	ABY387	M	C150960	0.0006	0.016	<0.0002	0.0325	23.9	0.0051	<0.0000019	0.0082	0.002		7.61	0.0007	0.992	<0.00002	59.4	1.15	57.8	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	0.62
RSEM-R6E-SP	7/16/2021 13:10	ABZ186	M	C151029	0.00068	0.022	<0.0002	0.031	23.8	0.0103	<0.0000019	0.008	0.0022		7.62	0.00067	1.04	<0.00002	59.3	1.17	57.0	0.000015	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	0.57
RSEM-R6E-SP	7/29/2021 12:20	ACY651	M	C155287	0.00066	<0.01	<0.0002	0.0265	21.7	<0.001	<0.0000019	0.0076	0.002		6.36	0.00138	1.21	<0.00002	44.0	0.911	75.7	0.000016	<0.005	<0.005	0.00195	<0.005	<0.005	<0.0001	0.76
RSEM-R6E-SP	7/30/2021 10:20	ACY653	M	C155288	0.00071	<0.01	<0.0002	0.0289	25.0	<0.001	<0.0000019	0.0079	0.0019		7.07	0.00093	1.2	<0.00002	50.3	1.07	87.5	0.000017	<0.005	<0.005	0.00197	<0.005	<0.005	<0.0001	0.69
RSEM-R6E-SP	7/31/2021 12:20	ADA373	M	C155508	0.00072	0.013	<0.0002	0.0266	23.2	0.0023	<0.0000019	0.008	0.0019		6.57	0.00082	1.08	<0.00002	48.5	0.874	76.8	0.000015	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	0.57
RSEM-R6E-SP	8/1/2021 11:30	ADC691	M	C155924	0.00078	0.012	<0.0002	0.0293	24.3	0.0013	<0.0000019	0.0082	0.0036		6.82	0.00101	0.937	<0.00002	50.2	0.994	78.1	0.000017	<0.005	<0.005	0.00187	<0.005	0.007	<0.0001	0.59
RSEM-R6E-SP	12/5/2021 13:00	FJ2101386-001	M	FJ2101386	0.00087	<0.010	<0.000050	0.0321	32.6	0.0204	<0.0000050	0.00647	0.00950	<0.050	4.84	0.00163	4.50	<0.000010	66.6	0.572	58.9	<0.000010	<0.00010	<0.00030	0.00249	<0.00050	0.0047	<0.00020	0.51
RSEM-R6E-SP	12/12/2021 11:55	FJ2101434-001	M	FJ2101434	0.00074	<0.010	<0.000050	0.0387	36.4	0.0262	<0.0000050	0.00652	0.01	<0.050	4.90	0.00210	4.52	<0.000010	69.5	0.586	67.8	0.000011	0.00019	<0.00030	0.00294	<0.00050	0.0042	<0.00020	0.56
RSEM-R6E-SP	12/15/2021 14:30	FJ2101472-002	M	FJ2101472	0.00078	<0.010	<0.000050	0.0396	45.2	0.00811	<0.0000050	0.00612	0.0111	<0.050	5.55	0.00245	4.81	<0.000010	75.1	0.642	88.7	<0.000010	0.00019	<0.00030	0.00366	<0.00050	0.0054	<0.00020	0.67
RSEM-R6E-SP	12/22/2021 7:00	FJ2101508-003	M	FJ2101508	0.00067	<0.010	<0.000050	0.0406	42.2	0.0199	<0.0000050	0.00687	0.0110	<0.050	5.76	0.00222	5.14	<0.000010	78.2	0.657	75.8	0.000010	0.00010	<0.00030	0.00375	<0.00050	0.0064	<0.00020	0.99
RSEM-R6E-SP-US	5/27/2021 15:20	ZW4833	M	C136103	<0.0005	<0.01	<0.0002	0.047	26.6	0.0123	<0.0000019	0.0032	0.0081		3.32	0.00103	4.02	<0.00002	98.4	0.67	58.0	0.000015	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	0.83
RSEM-R6E-SP-US	8/22/2021 14:00	AEI415	M	C161433	0.00148	<0.01	<0.0002	0.0444	27.6	0.359	<0.0000019	0.0066	0.0399		7.73	0.00113	2.64	<0.00002	29.2	1.78	63.9	0.000029	<0.005	<0.005	0.00346	<0.005	0.0082	<0.0001	>4000
RSEM-R6W-EOP	1/1/2021 14:50	ZC6628	M	C100093	0.00068	<0.01	<0.0002	0.0696	33.0	0.004	<0.0000019	0.0102	0.0061		4.20	0.00328	4.68	<0.00002	202	0.265	147	<0.00001	<0.005	<0.005	0.00309	0.0062	0.0093	<0.0001	1.8
RSEM-R6W-EOP	1/2/2021 15:55	ZC7220	M	C100230	0.00059	<0.01	<0.0002	0.0722	32.0	0.0038	<0.0000019	0.0098	0.0057		3.95	0.00346	4.84	<0.00002	201	0.261	145	<0.00001	<0.005	<0.005	0.00293	0.006	0.0095	<0.0001	2.7
RSEM-R6W-EOP	1/4/2021 18:20	ZC8854	M	C100618	0.00059	<0.01	<0.0002	0.0675	32.0	0.0032	<0.0000019	0.009	0.0052		3.80	0.00328	4.6	<0.00002	187	0.247	144	<0.00001	<0.005	<0.005	0.00289	0.0061	0.0115	<0.0001	1.9
RSEM-R6W-EOP	1/5/2021 11:55	ZC8849	M	C100616	0.00061	<0.01	<0.0002	0.067	30.8	0.0028	<0.0000019	0.0087	0.0047		3.63	0.00318	4.69	<0.00002	179	0.241	136	<0.00001	<0.005	<0.005	0.00286	0.0061	0.0122	<0.0001	1.9
RSEM-R6W-EOP	1/6/2021 13:40	ZD1295	M	C101203	0.00061	<0.01	<0.0002	0.0621	30.0	0.0015	<0.0000019	0.0089	0.0047		3.65	0.00299	4.4	<0.00002	185	0.244	136	<0.00001	<0.005	<0.005	0.00279	0.0065	0.012	<0.0001	1.9
RSEM-R6W-EOP	1/7/2021 13:10	ZD2460	M	C101487	0.00061	<0.01	<0.0002	0.0576	31.4	0.0029	<0.0000019	0.009	0.0046		3.74	0.00276	4.73	<0.00002	186	0.249	136	<0.00001	<0.005	<0.005	0.00287	0.0065	0.0117	<0.0001	1.6
RSEM-R6W-EOP	1/8/2021 13:20	ZD2450	M	C101485	0.00059	<0.01	<0.0002	0.0589	30.7	0.004	<0.0000019	0.0089	0.0043		3.67	0.00265	4.58	<0.00002	183	0.251	134	<0.00001	<0.005	<0.005	0.00287	0.0063	0.0113	<0.0001	1.8
RSEM-R6W-EOP	1/9/2021 14:20	ZD4127	M	C101792	0.0006	<0.01	<0.0002	0.0616	30.7	0.003	<0.0000019	0.009	0.0042		3.66	0.00266	4.89	<0.00002	186	0.247	132	<0.00001	<0.005	<0.005	0.00279	0.0064	0.0116	<0.0001	1.9
RSEM-R6W-EOP	1/10/2021 13:00	ZD4124	M	C101791	0.00055	<0.01	<0.0002	0.0618	30.1	0.0037	<0.0000019	0.0091	0.0042		3.74	0.00261	4.82	<0.00002	184	0.254	132	<0.00001	<0.005	<0.005	0.00276	0.0063	0.0119	<0.0001	2.5
RSEM-R6W-EOP	1/11/2021 14:20	ZD5675	M	C102082	0.00059	<0.01	<0.0002	0.0637	29.4	0.0031	<0.0000019	0.0094	0.0046		3.57	0.00324	4.47	<0.00002	185	0.255	134	<0.00001	<0.005	<0.005	0.00269	0.0065	0.012	<0.0001	1.7
RSEM-R6W-EOP	1/12/2021 13:20	ZD8127	M	C102522	0.00061	<0.01	<0.0002	0.0545	27.7	0.003	<0.0000019	0.009	0.0041		3.53	0.0029	4.51	<0.00002	179	0.234	125	<0.00001	<0.005	<0.005	0.00273	0.0067	0.0121	<0.0001	2.0
RSEM-R6W-EOP	1/13/2021 13:50	ZD9242	M	C102779	0.00054	<0.01	<0.0002	0.0666	29.9	0.0023	<0.0000019	0.0094	0.0038		3.70	0.00274	4.82	<0.00002	185	0.255	139	<0.00001	<0.005	<0.005	0.00277	0.0071	0.0121	<0.0001	2.2
RSEM-R6W-EOP	1/14/2021 10:30	ZD9431	M	C102840	0.00053	<0.01	<0.0002	0.0652	29.3	0.0022	0.000004	0.0097	0.0035		3.75	0.00262	5.07	<0.00002	182	0.258	134	<0.00001	<0.005	<0.005	0.00276	0.0071	0.012	<0.0001	1.7
RSEM-R6W-EOP	1/15/2021 13:15	ZE0829	M	C103125	0.00061	<0.01	<0.0002	0.0607	28.0	0.0022	<0.0000019	0.0094	0.0033		3.60	0.00275	4.96	<0.00002	178	0.239	128	<0.00001	<0.005	<0.005	0.00265	0.0073	0.0114	<0.0001	1.8
RSEM-R6W-EOP	1/16/2021 11:05	ZE2984	M	C103538	0.00055	<0.01	<0.0002	0.0591	26.5	0.0021	<0.0000019	0.0093	0.0032		3.60	0.0027	4.97	<0.00002	171	0.233	122	<0.00001	<0.005	<0.005	0.00262	0.0073	0.0105	<0.0001	2.0
RSEM-R6W-EOP	1/17/2021 13:40	ZE3023	M	C103542	0.00057	<0.01	<0.0002	0.0589	26.5	0.0021	<0.0000019	0.0091	0.0029		3.48	0.0027	4.92	<0.00002	168	0.223	117	<0.00001	<0.005	<0.005	0.0026	0.0074	0.0099	<0.0001	2.1
RSEM-R6W-EOP	1/18/2021 10:30	ZE2901	M	C103523	0.0006	<0.01	<0.0002	0.0577	26.0	0.0026	<0.0000019	0.0092	0.0031		3.58	0.00269	4.88	<0.00002	163	0.229	118	<0.00001	<0.005	<0.005	0.00258	0.0074	0.0096	<0.0001	2.2
RSEM-R6W-EOP	1/19/2021 12:30	ZE5959	M	C104146	0.00061	<0.01	<0.0002	0.0549	27.4	0.0029	<0.0000019	0.0088	0.0034		3.61	0.00243	4.96	<0.00002	169	0.231	122	<0.00001	<0.005	<0.005	0.00253	0.007	0.0098	<0.0001	2.2
RSEM-R6W-EOP	1/20/2021 12:30	ZE6018	M	C104156	0.0006	<0.01	<0.0002	0.0544	27.7	0.0036	<0.0000019	0.0089	0.0036		3.57	0.00258	4.98	<0.00002	173	0.233	122	<0.00001	<0.005	<0.005	0.00259	0.0069	0.0102	<0.0001	1.9
RSEM-R6W-EOP	1/21/2021 15:30	ZE9302	M	C104705	0.0006	<0.01	<0.0002	0.0628	27.4	0.0051	<0.0000019	0.0084	0.0041		3.42	0.00242	4.17	<0.00002	173	0.211	112	<0.00001	<0.005	<0.005	0.00242	0.0066	0.0093	<0.0001	1.8
RSEM-R6W-EOP	1/22/2021 13:10	ZE9299	M	C104704	0.00081	<0.01	<0.0002	0.0621	28.7	0.008	<0.0000019	0.0086	0.0049		3.59	0.00245	4.27	<0.00002	176	0.232	120	<0.00001	<0.005	<0.005	0.00251	0.0066	0.009	<0.0001	2.0
RSEM-R6W-EOP	1/23/2021 15:55	ZF1597	M	C105086	0.00063	<0.01	<0.0002	0.0646	29.4	0.0099	<0.0000019	0.0087	0.0053		3.63	0.00244	4.53	<0.00002	176	0.256	125	<0.00001	<0.005	<0.005	0.00257	0.0063	0.0084	<0.0001	2.4
RSEM-R6W-EOP	1/24/2021 13:55	ZF1582	M	C105082	0.00066	<0.01	<0.0002	0.0626	29.6	0.0097	<0.0000019	0.0087	0.0054		3.72	0.00252	4.8	<0.00002	179	0.265	125	<0.00001	<0.005	<0.005	0.00263	0.0064	0.0081	<0.0001	3.3
RSEM-R6W-EOP	1/25/2021 10:00	ZF1641	M	C105090	0.00068	<0.01	<0.0002	0.0673	31.3	0.0118	<0.0000019	0.0093	0.0068		4.05	0.00283	4.66	<0.00002	191	0.281	140	<0.00001	<0.005	<0.005	0.00268	0.0061	0.0084	<0.0001	3.2
RSEM-R6W-EOP	2/6/2021 13:10	ZH3137	M	C108285	0.00068	<0.01	<0.0002	0.0587	31.1	0.0074	<0.0000019	0.0097	0.0048		3.99	0.00285	4.68	<0.00002	188	0.308	130	<0.00001	<0.005	<0.005	0.00281	0.0066	0.0202	<0.0001	3.1
RSEM-R6W-EOP	2/7/2021 13:25	ZH3207	M	C108294	0.00069	<0.01	<0.0002	0.06	30.4	0.0067	<0.0000019	0.009	0.004		3.93	0.0027	4.66	<0.00002	178	0.297	124	<0.00001	<0.005	<0.005	0.00287	0.007	0.013	0.00011	2.7
RSEM-R6W-EOP	2/7/2021 13:35	ZH3208	D	C108294	0.00074	<0.01	<0.0002	0.0606	30.6	0.0066	<0.0000019	0.0089	0.0041		3.88	0.00283	4.65	<0.00002	178	0.297	124	<0.00001	<0.005	<0.005	0.00284	0.007	0.0133	<0.0001	2.7
RSEM-R6W-EOP	2/8/2021 10:20	ZH3060	M	C108279	0.00073	<0.01	<0.0002	0.0586	29.5	0.0062	<0.0000019	0.0088	0.0036		3.83	0.00264	4.67	<0.00002	171	0.295	118	<0.00001	<0.005	<0.005	0.00289	0.0074	0.009	0.00012	3.2
RSEM-R6W-EOP	2/9/2021 15:50	ZH7147	M	C109072	0.00076	<0.01	<0.0002	0.0604	29.6	0.0036	<0.0000019	0.0083	0.0032		3.97	0.00239	5.22	<0.00002	166	0.281	114	<0.00001	<0.005	<0.005	0.00287	0.0076	0.006	<0.0001	3.7
RSEM-R6W-EOP	2/10/2021 13:10	ZH7144	M	C109071	0.00074	<0.01	<0.0002	0.061	29.1	0.0038	<0.0000019	0.008	0.003		3.93	0.00229	5.33	<0.00002	160	0.264	104	<0.00001	<0.005	<0.005	0.00285	0.0078	0.0056	<0.0001	3.5
RSEM-R6W-EOP	2/11/2021 17:00	ZH8475	M	C109352	0.00079	<0.01	<0.0002	0.06	28.2	0.0042	<0.0000019	0.0075	0.0029		3.81	0.00227	5.22	<0.00002	157	0.225	101	<0.00001	<0.005	<0.005	0.003	0.0079	0.008	<0.0001	2.4
RSEM-R6W-EOP	2/12/2021 10:50	ZH8473	M	C109351	0.00084	<0.01	<0.0002	0.0592	28.0	0.004	<0.0000019	0.0074	0.0026		3.78	0.00218	5.31	<0.00002	152	0.217	99.9	<0.00001	<0.005	<0.005	0.00301	0.008	0.0095	<0.0001	2.7
RSEM-R6W-EOP	2/13/2021 13:00	ZH8990	M	C109471	0.00083	<0.01	<0.0002	0.058	27.4	0.0035	<0.0000019	0.0071	0.0026		3.75	0.00212	5.27	<0.00002	149	0.207	95.2	<0.00001	<0.005	<0.005	0.00292	0.0079	0.0105	<0.0001	3.5
RSEM-R6W-EOP	2/13/2021 13:10	ZH8991	D	C109471	0.00093	<0.01	<0.0002	0.0574	27.1	0.0034	<0.0000019	0.0072	0.0025		3.71	0.00217	5.27	<0.00002	147	0.206	96.0	<0.00001	<0.005	<0.005	0.00293	0.0081	0.0103	<0.0001	3.2
RSEM-R6W-EOP	2/14/2021 10:00	ZI0121	M	C109675	0.00079	<0.01	<0.0002	0.0641	27.5	0.0036	<0.0000019	0.0077	0.0025		3.91	0.00213	5.72	<0.00002	149	0.223	97.6	<0.00001	<0.005	<0.005	0.00288	0.0079	0.0113	<0.0001	3.3
RSEM-R6W-EOP	2/15/2021 10:00	ZI0119	M	C109675	0.00082	<0.01	<0.0002	0.0633	27.3	0.0032	<0.0000019	0.0077	0.0024		3.87	0.00199	5.72	<0.00002	148	0.216	96.2	<0.00001	<0.005	<0.005	0.00292	0.0081	0.0132	<0.0001	3.7
RSEM-R6W-EOP	2/16/2021 13:40	ZI2026	M	C110128	0.00087	<0.01	<0.0002	0.06	28.6	0.0026	<0.0000019	0.0074	0.0022		3.96	0.00207	5.84	<0.00002	149	0.206	92.8	<0.00001	<0.005	<0.005	0.00283	0.0084	0.017	<0.0001	4.3
RSEM-R6W-EOP	2/16/2021 13:50	ZI2027	D	C110128	0.00086	<0.01	<0.0002	0.0603	28.8	0.0026	<0.0000019	0.0074	0.0022		4.02	0.00206	5.85	<0.00002	150	0.215	95.3	<0.00001	<0.005	<0.005	0.00283	0.0084	0.017	<0.0001	4.3
RSEM-R6W-EOP	2/17/2021 13:15	ZI1809	M	C110059	0.00081	<0.01	<0.0002	0.0581	27.4	0.0023	<0.0000019	0.0075	0.002		3.88	0.00202	5.93	<0.00002	144	0.201	91.7	<0.00001	<0.005	<0.005	0.00288	0.0083	0.02	<0.0001	3.8
RSEM-R6W-EOP	2/18/2021 13:50	ZI6453	M	C110759	0.00082	<0.01	<0.0002	0.0621	26.3	0.0024	<0.0000019	0.0076	0.002		3.89	0.00214	6.12	<0.00002	145	0.202	94.2	<0.00001	<0.005	<0.005	0.0028	0.0087	0.0198	<0.0001	3.8

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-EOP	2/18/2021 14:00	ZI6454	D	C110759	0.00082	<0.01	<0.0002	0.0626	26.4	0.0023	<0.0000019	0.0074	0.0018		3.93	0.00218	6.16	<0.00002	144	0.195	95.7	<0.00001	<0.005	<0.005	0.00281	0.0088	0.0195	<0.0001	3.6
RSEM-R6W-EOP	2/19/2021 12:55	ZI6371	M	C110747	0.00078	<0.01	<0.0002	0.0607	26.0	0.0023	<0.0000019	0.0074	0.0018		3.92	0.00213	6	<0.00002	143	0.197	93.8	<0.00001	<0.005	<0.005	0.00278	0.0086	0.0227	<0.0001	3.6
RSEM-R6W-EOP	2/20/2021 11:10	ZI8653	M	C111165	0.00071	<0.01	<0.0002	0.0567	24.3	0.002	<0.0000019	0.0074	0.0017		3.56	0.00186	5.87	<0.00002	135	0.18	84.8	<0.00001	<0.005	<0.005	0.00278	0.008	0.0266	<0.0001	4.3
RSEM-R6W-EOP	2/20/2021 11:20	ZI8654	D	C111165	0.00073	<0.01	<0.0002	0.0529	25.3	0.0021	<0.0000019	0.0072	0.0017		3.71	0.00191	5.35	<0.00002	140	0.184	88.2	<0.00001	<0.005	<0.005	0.00268	0.0083	0.0275	<0.0001	4.3
RSEM-R6W-EOP	2/21/2021 13:40	ZI8311	M	C111114	0.00078	<0.01	<0.0002	0.0552	26.7	0.003	<0.0000019	0.0074	0.0018		3.91	0.00186	5.59	<0.00002	148	0.19	93.2	<0.00001	<0.005	<0.005	0.00268	0.0085	0.031	<0.0001	4.3
RSEM-R6W-EOP	2/22/2021 15:40	ZJ0344	M	C111442	0.00065	<0.01	<0.0002	0.0572	27.3	0.0045	<0.0000019	0.0077	0.0019		4.07	0.00256	5.93	<0.00002	156	0.219	102	<0.00001	<0.005	<0.005	0.00306	0.0073	0.0054	<0.0001	3.8
RSEM-R6W-EOP	2/25/2021 12:30	ZJ8556	M	C112624	0.00051	<0.01	<0.0002	0.053	24.5	<0.001	<0.0000019	0.0078	0.0023		3.95	0.00197	5.49	<0.00002	143	0.201	92.5	<0.00001	<0.005	<0.005	0.00262	0.0073	0.0198	<0.0001	3.9
RSEM-R6W-EOP	2/26/2021 13:50	ZJ8521	M	C112618	0.0008	<0.01	<0.0002	0.0568	25.0	0.0125	<0.0000019	0.0089	0.0043		4.54	0.00222	5.74	<0.00002	156	0.218	105	<0.00001	<0.005	<0.005	0.00269	0.007	0.0202	<0.0001	4.1
RSEM-R6W-EOP	2/26/2021 14:00	ZJ8522	D	C112618	0.00083	<0.01	<0.0002	0.0585	24.8	0.0125	<0.0000019	0.0089	0.0043		4.48	0.00234	5.93	<0.00002	154	0.217	103	<0.00001	<0.005	<0.005	0.00271	0.0068	0.0202	<0.0001	4.1
RSEM-R6W-EOP	2/27/2021 12:30	ZK1993	M	C113050	0.00089	<0.01	<0.0002	0.0608	23.3	0.0107	<0.0000019	0.0105	0.0059		4.70	0.00304	5.77	<0.00002	159	0.261	107	<0.00001	<0.005	<0.005	0.00271	0.0064	0.0155	<0.0001	3.8
RSEM-R6W-EOP	2/28/2021 12:40	ZK2231	M	C113095	0.00096	<0.01	<0.0002	0.0595	22.4	0.009	<0.0000019	0.0111	0.0071		5.03	0.00327	5.65	<0.00002	156	0.259	110	<0.00001	<0.005	<0.005	0.00259	0.0061	0.0127	<0.0001	5.4
RSEM-R6W-EOP	2/28/2021 12:50	ZK2232	D	C113095	0.00098	<0.01	<0.0002	0.0608	22.9	0.009	<0.0000019	0.0112	0.0072		5.14	0.00334	5.51	<0.00002	161	0.264	113	<0.00001	<0.005	<0.005	0.00261	0.0061	0.0133	<0.0001	5.1
RSEM-R6W-EOP	3/1/2021 9:40	ZK1995	M	C113051	<0.0005	<0.01	<0.0002	0.0288	18.1	0.0436	<0.0000019	0.0062	0.0033		2.76	0.00158	3.81	<0.00002	78.8	0.261	67.9	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	3/2/2021 15:30	ZK8063	M	C114225	<0.0005	<0.01	<0.0002	0.0176	17.1	0.092	<0.0000019	0.0043	0.0019		1.80	0.00106	3.39	<0.00002	48.5	0.251	54.0	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	22
RSEM-R6W-EOP	3/3/2021 15:40	ZK8061	M	C114224	<0.0005	<0.01	<0.0002	0.0163	17.2	0.102	<0.0000019	0.0042	0.0016		1.76	0.00104	3.26	<0.00002	46.0	0.258	53.8	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	26
RSEM-R6W-EOP	3/4/2021 14:10	ZL0408	M	C114582	<0.0005	<0.01	<0.0002	0.0111	13.8	0.112	<0.0000019	0.0032	<0.001		1.31	0.00078	2.85	<0.00002	28.3	0.213	36.5	<0.00001	<0.005	<0.005	0.00089	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	3/5/2021 12:30	ZL0414	M	C114584	<0.0005	<0.01	<0.0002	0.0183	15.8	0.0966	<0.0000019	0.0047	0.0014		1.82	0.00133	3.04	<0.00002	52.4	0.234	53.2	0.000011	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	32
RSEM-R6W-EOP	3/6/2021 9:40	ZL3536	M	C115040	<0.0005	<0.01	<0.0002	0.0154	16.5	0.124	<0.0000019	0.0041	0.0014		1.63	0.00125	2.9	<0.00002	47.5	0.241	50.3	<0.00001	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	3/6/2021 9:50	ZL3534	D	C115040	<0.0005	<0.01	<0.0002	0.0157	16.4	0.123	<0.0000019	0.0045	0.0015		1.64	0.00124	2.96	<0.00002	48.2	0.242	53.4	0.00001	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	3/8/2021 12:10	ZL3598	M	C115055	<0.0005	<0.01	<0.0002	0.0117	14.7	0.125	<0.0000019	0.0039	0.0011		1.42	0.00129	2.89	<0.00002	36.0	0.223	41.1	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	3/9/2021 14:20	ZL6923	M	C115720	<0.0005	<0.01	<0.0002	0.0121	14.6	0.112	<0.0000019	0.0039	<0.001		1.54	0.0013	3.12	<0.00002	39.0	0.235	42.2	<0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	16
RSEM-R6W-EOP	3/9/2021 14:30	ZL6924	D	C115720	<0.0005	<0.01	<0.0002	0.0127	14.5	0.113	<0.0000019	0.0038	0.001		1.52	0.00131	3.12	<0.00002	39.6	0.23	41.8	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	16
RSEM-R6W-EOP	3/10/2021 12:55	ZL8188	M	C115987	<0.0005	<0.01	<0.0002	0.0127	14.5	0.112	<0.0000019	0.0037	0.001		1.56	0.00117	3.2	<0.00002	39.8	0.226	43.3	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001	7.3
RSEM-R6W-EOP	3/11/2021 12:30	ZL8466	M	C116050	<0.0005	<0.01	<0.0002	0.0132	14.7	0.111	<0.0000019	0.0035	0.0012		1.61	0.00121	3.27	<0.00002	41.2	0.228	46.6	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	4.3
RSEM-R6W-EOP	3/11/2021 12:40	ZL8467	D	C116050	<0.0005	<0.01	<0.0002	0.0133	14.9	0.113	<0.0000019	0.0037	0.0012		1.63	0.00123	3.21	<0.00002	42.3	0.229	46.5	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	<0.0001	4.8
RSEM-R6W-EOP	3/12/2021 12:25	ZM0345	M	C116306	<0.0005	<0.01	<0.0002	0.014	15.2	0.11	<0.0000019	0.0037	0.0014		1.64	0.00128	3.36	<0.00002	43.3	0.223	45.9	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001	1.7
RSEM-R6W-EOP	3/13/2021 13:30	ZM2419	M	C116756	<0.0005	<0.01	<0.0002	0.0144	15.3	0.108	<0.0000019	0.0037	0.0015		1.70	0.00134	3.44	<0.00002	45.3	0.212	47.3	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	4.7
RSEM-R6W-EOP	3/13/2021 13:40	ZM2420	D	C116756	<0.0005	<0.01	<0.0002	0.0143	15.3	0.108	<0.0000019	0.0037	0.0015		1.71	0.00129	3.33	<0.00002	45.3	0.212	47.9	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	4.6
RSEM-R6W-EOP	3/14/2021 11:55	ZM2398	M	C116750	<0.0005	<0.01	<0.0002	0.0148	15.1	0.0958	<0.0000019	0.0039	0.0014		1.74	0.00143	3.55	<0.00002	45.8	0.214	46.5	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	3/15/2021 12:00	ZM4115	M	C117045	<0.0005	<0.01	<0.0002	0.014	13.9	0.0753	<0.0000019	0.0044	0.0012		1.79	0.00145	3.78	<0.00002	45.7	0.21	44.5	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	20
RSEM-R6W-EOP	3/16/2021 13:40	ZM5657	M	C117434	<0.0005	<0.01	<0.0002	0.0147	14.4	0.0722	<0.0000019	0.0049	0.0011		1.84	0.00151	3.84	<0.00002	48.3	0.227	47.0	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	22
RSEM-R6W-EOP	3/17/2021 14:30	ZM7319	M	C117752	<0.0005	<0.01	<0.0002	0.0132	13.1	0.0592	<0.0000019	0.0051	<0.001		1.77	0.00144	3.63	<0.00002	44.8	0.197	42.9	<0.00001	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	5.9
RSEM-R6W-EOP	3/18/2021 12:50	ZM8874	M	C118063	<0.0005	<0.01	<0.0002	0.0133	13.0	0.0585	<0.0000019	0.005	<0.001		1.75	0.0014	3.58	<0.00002	44.5	0.195	40.3	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	3/19/2021 13:25	ZM8866	M	C118061	<0.0005	<0.01	<0.0002	0.0141	13.2	0.0621	<0.0000019	0.0049	<0.001		1.64	0.0014	3.4	<0.00002	43.9	0.195	40.9	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	3/20/2021 15:45	ZN1535	M	C118497	<0.0005	<0.01	<0.0002	0.0127	12.7	0.0549	<0.0000019	0.0058	<0.001		1.87	0.00156	3.16	<0.00002	48.1	0.18	39.4	<0.00001	<0.005	<0.005	0.00089	<0.005	<0.005	<0.0001	8.4
RSEM-R6W-EOP	3/21/2021 12:05	ZN1583	M	C118513	<0.0005	<0.01	<0.0002	0.0128	12.7	0.0617	<0.0000019	0.0058	0.0012		1.79	0.00154	3.13	<0.00002	46.8	0.183	39.1	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	6.5
RSEM-R6W-EOP	3/22/2021 11:05	ZN1162	M	C118411	<0.0005	<0.01	<0.0002	0.0136	13.0	0.0668	<0.0000019	0.006	0.0017		1.95	0.0019	3.14	<0.00002	48.6	0.185	42.0	<0.00001	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0001	9.4
RSEM-R6W-EOP	3/23/2021 13:00	ZN5252	M	C119350	<0.0005	<0.01	<0.0002	0.0161	12.6	0.0697	<0.0000019	0.0065	0.0021		1.96	0.00192	3.08	<0.00002	51.9	0.208	41.6	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	<0.0001	7.1
RSEM-R6W-EOP	3/24/2021 11:30	ZN5257	M	C119352	<0.0005	<0.01	<0.0002	0.0165	12.5	0.0614	<0.0000019	0.0064	0.0023		1.93	0.00188	2.9	<0.00002	51.6	0.209	41.6	<0.00001	<0.005	<0.005	0.00094	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	3/25/2021 14:30	ZN6325	M	C119610	<0.0005	<0.01	<0.0002	0.0165	12.2	0.0505	<0.0000019	0.0061	0.0021		1.90	0.00182	2.9	<0.00002	49.6	0.199	40.5	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	9.9
RSEM-R6W-EOP	3/25/2021 15:00	ZN6323	D	C119610	<0.0005	<0.01	<0.0002	0.0163	12.1	0.0503	<0.0000019	0.0061	0.0021		1.90	0.00183	2.88	<0.00002	49.7	0.2	40.4	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	10
RSEM-R6W-EOP	3/26/2021 10:50	ZN6316	M	C119607	<0.0005	<0.01	<0.0002	0.0174	11.7	0.0422	<0.0000019	0.0067	0.0019		1.91	0.00208	2.92	<0.00002	53.8	0.216	40.6	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	9.8
RSEM-R6W-EOP	3/27/2021 13:50	ZN9495	M	C120087	<0.0005	<0.01	<0.0002	0.0186	12.1	0.0406	<0.0000019	0.007	0.0018		1.95	0.00232	3.03	<0.00002	57.5	0.22	43.2	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	3/28/2021 10:30	ZN9522	M	C120093	<0.0005	<0.01	<0.0002	0.0187	12.1	0.0375	<0.0000019	0.0068	0.0017		1.91	0.00231	3	<0.00002	57.5	0.217	42.3	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	10
RSEM-R6W-EOP	3/29/2021 10:50	ZN9581	M	C120108	<0.0005	<0.01	<0.0002	0.0191	12.7	0.0359	<0.0000019	0.0066	0.0015		1.98	0.00212	3.1	<0.00002	61.0	0.214	44.6	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	6.5
RSEM-R6W-EOP	3/30/2021 12:55	ZO2681	M	C120790	<0.0005	<0.01	<0.0002	0.0182	12.5	0.0317	<0.0000019	0.0063	0.0015		2.03	0.00192	3.16	<0.00002	59.2	0.221	42.8	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	6.8
RSEM-R6W-EOP	3/30/2021 13:05	ZO2682	D	C120790	<0.0005	<0.01	<0.0002	0.0181	12.5	0.0319	<0.0000019	0.0063	0.0015		2.06	0.0019	3.13	<0.00002	59.3	0.223	44.3	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	7.1
RSEM-R6W-EOP	3/31/2021 16:40	ZO4117	M	C121130	<0.0005	<0.01	<0.0002	0.0182	12.2	0.0305	<0.0000019	0.0064	0.0016		2.01	0.00197	3.04	<0.00002	58.6	0.212	42.1	<0.00001	<0.005	<0.005	0.00107	<0.005	<0.005	<0.0001	8.4
RSEM-R6W-EOP	4/1/2021 11:30	ZO4124	M	C121132	<0.0005	<0.01	<0.0002	0.0181	11.6	0.0278	<0.0000019	0.0068	0.0016		2.09	0.002	3.15	<0.00002	58.5	0.215	41.4	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	18
RSEM-R6W-EOP	4/2/2021 12:40	ZO4865	M	C121238	<0.0005	<0.01	<0.0002	0.0201	12.4	0.0326	<0.0000019	0.0076	0.0022		2.06	0.00247	2.97	<0.00002	65.2	0.207	46.5	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	4/3/2021 13:10	ZO6450	M	C121575	0.00219	<0.01	<0.0002	0.0218	12.8	0.0285	<0.0000019	0.0092	0.003		2.28	0.00368	3	<0.00002	72.8	0.24	52.7	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	23
RSEM-R6W-EOP	4/3/2021 13:20	ZO6451	D	C121575	0.00219	<0.01	<0.0002	0.0217	12.7	0.0287	<0.0000019	0.0092	0.003		2.27	0.00368	2.98	<0.00002	72.4	0.239	52.1	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	23
RSEM-R6W-EOP	4/4/2021 12:50	ZO6464	M	C121580	0.00162	<0.01	<0.0002	0.0215	12.6	0.0311	<0.0000019	0.0092	0.003		2.30	0.00353	3.04	<0.00002	72.5	0.262	52.9	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	20
RSEM-R6W-EOP	4/5/2021 12:50	ZO7518	M	C121801	0.00109	<0.01	<0.0002	0.0198	12.6	0.0319	<0.0000019	0.0084	0.0028		2.15	0.00306	3	<0.00002	66.3	0.226	48.0	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	4/6/2021 14:30	ZO9475	M	C122250	0.0007	<0.01	<0.0002	0.0196	11.9	0.0295	<0.0000019	0.0081	0.0023		2.10	0.00275	3.28	<0.00002	59.3	0.226	46.5	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	4/7/2021 14:40	ZP0881	M	C122580	0.00064	<0.01	<0.0002	0.0194	11.6	0.0258	<0.0000019	0.0091	0.0022		2.06	0.00281	3.02	<0.00002	59.5	0.23	41.9	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	20
RSEM-R6W-EOP	4/7/2021 14:50	ZP0882	D	C122580	0.00064	<0.01	<0.0002	0.02	11.5	0.026	<0.0000019	0.0091	0.0022		2.09	0.00293	3.08	<0.00002	59.3	0.23	44.9	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	21
RSEM-R6W-EOP	4/8/2021 12:10	ZP1743	M	C122796	0.00062	<0.01	<0.0002	0.0186	11.5	0.0248	<0.0000019	0.0084	0.0022		2.06	0.00279	3.24	<0.00002	59.4	0.231	45.4	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	4/9/2021 13:00	ZP1762	M	C122801	0.0007	<0.01	<0.0002	0.0192	11.4	0.0247	<0.0000019	0.0086	0.0021		2.04	0.0029	3.44	<0.00002	61.0	0.235	44.8	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	16
RSEM-R6W-EOP	4/9/2021 13:10	ZP1763	D	C122801	0.00071	<0.01	<0.0002	0.021	11.1	0.0244	<0.0000019	0.0083	0.0021		2.02	0.00284	3.41	<0.00002	60.4	0.233	44.2	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	16
RSEM-R6W-EOP	4/10/2021 10:50	ZP3594	M	C123204	0.00086	<0.01	<0.0002	0.0186	11.2	0.0287	<0.0000019	0.0074	0.003		2.16	0.00254	2.51	<0.00002	55.8	0.25	42.1	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	4/11/2021 12:50	ZP3858	M	C123260	0.00057	<0.01	<0.0002	0.0208	11.7	0.0289	<0.0000019	0.0074	0.002		1.90	0.00269	3.03	<0.00002	62.6	0.242	45.9	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	16
RSEM-R6W-EOP	4/12/2021 10:30	ZP3854	M	C123259	0.00071	<0.01	<0.0002	0.0192	11.5	0.0227	<0.0000019	0.007	0.0029		2.21	0.00232	2.21	<0.00002	57.2	0.258	43.4	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	21
RSEM-R6W-EOP	4/13/2021 11:45	ZP9471	M	C124396	<0.0005	<0.01	<0.0002	0.0192	9.71	0.0145	<0.0000019	0.0086	0.0017		1.93	0.00288	3.04	<0.00002	59.6	0.284	41.6	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	33
RSEM-R6W-EOP	4/14/2021 18:50	ZP9474	M	C124397	<0.0005	<0.01	<0.0002	0.0209	10.6	0.0206	<0.0000019	0.0078	0.0022		1.76	0.00286	3.2	<0.00002	58.3	0.264	42.7	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	41
RSEM-R6W-EOP	4/17/2021 11:40	ZQ3725	M	C125158	<0.0005	<0.01	<0.0002	0.0201	12.4	0.0299	<0.0000019	0.0063	0.0019		1.62	0.00235	3.11	<0.00002	59.1	0.233	43.6	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	12
RSEM-R6W-EOP	4/18/2021 10:30	ZQ3726	M	C125158	<0.0005	<0.01	<0.0002	0.0189	12.0	0.0289	<0.0000019	0.0065	0.0019		1.55	0.00243	3.05	<0.00002	57.6	0.227	39.5	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	4/19/2021 12:35	ZQ5795	M	C125554	<0.0005	<0.01	<0.0002	0.0192	10.4	0.0177	<0.0000019	0.0083	0.0015		1.61	0.00322	3.2	<0.00002	62.9	0.241	36.9	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	4/20/2021 10:30	ZQ9981	M	C126323	<0.0005	<0.01	<0.0002	0.0197	10.7	0.0105	<0.0000019	0.0082	0.0014		1.63	0.003	3.29	<0.00002	66.2	0.254	40.4	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	17

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-EOP	4/21/2021 10:00	ZQ9982	M	C126323	<0.0005	<0.01	<0.0002	0.0205	11.1	0.0174	<0.0000019	0.0079	0.0015		1.69	0.00287	3.39	<0.00002	69.6	0.247	43.6	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	22
RSEM-R6W-EOP	4/22/2021 9:30	ZR1313	M	C126529	<0.0005	<0.01	<0.0002	0.0192	10.6	0.017	<0.0000019	0.0075	0.0015		1.73	0.00294	3.21	<0.00002	65.2	0.266	37.8	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	26
RSEM-R6W-EOP	4/23/2021 9:30	ZR1314	M	C126529	<0.0005	<0.01	<0.0002	0.0176	10.5	0.0182	<0.0000019	0.0069	0.0014		1.59	0.0027	3.29	<0.00002	59.5	0.253	35.2	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	19
RSEM-R6W-EOP	4/24/2021 3:00	ZR4688	M	C127059	<0.0005	<0.01	<0.0002	0.0179	10.3	0.0186	<0.0000019	0.0065	0.0015		1.47	0.00266	3.26	<0.00002	59.9	0.233	36.8	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	4/25/2021 14:15	ZR4686	M	C127059	<0.0005	<0.01	<0.0002	0.0182	10.6	0.0196	<0.0000019	0.0063	0.0014		1.42	0.00249	3.26	<0.00002	60.8	0.221	38.4	<0.00001	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	4/26/2021 10:30	ZR5705	M	C127281	<0.0005	<0.01	<0.0002	0.0183	10.9	0.0235	<0.0000019	0.006	0.0016		1.42	0.00235	3.19	<0.00002	60.4	0.205	40.1	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	7.7
RSEM-R6W-EOP	4/27/2021 15:45	ZR7959	M	C127704	<0.0005	<0.01	<0.0002	0.0164	11.2	0.0264	<0.0000019	0.0057	0.0015		1.42	0.00212	3.03	<0.00002	59.7	0.214	38.0	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	7.8
RSEM-R6W-EOP	4/28/2021 12:20	ZS0313	M	C128230	<0.0005	<0.01	<0.0002	0.0159	10.6	0.0291	<0.0000019	0.0054	0.0015		1.22	0.00198	2.69	<0.00002	51.9	0.194	31.7	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	10
RSEM-R6W-EOP	4/28/2021 12:30	ZS0314	D	C128230	<0.0005	<0.01	<0.0002	0.0158	11.1	0.0304	<0.0000019	0.0054	0.0016		1.26	0.00205	2.89	<0.00002	52.9	0.195	32.1	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	4/29/2021 10:30	ZS2293	M	C128584	<0.0005	<0.01	<0.0002	0.0185	11.1	0.0276	0.000002	0.0063	0.0015		1.35	0.00237	2.92	<0.00002	60.2	0.197	35.0	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	10
RSEM-R6W-EOP	4/30/2021 10:45	ZS2247	M	C128573	<0.0005	<0.01	<0.0002	0.0196	11.1	0.0217	<0.0000019	0.0071	0.0014		1.43	0.00259	3.36	<0.00002	64.6	0.198	37.2	<0.00001	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	4/30/2021 10:55	ZS2248	D	C128573	<0.0005	<0.01	<0.0002	0.0189	10.9	0.0214	0.0000042	0.007	0.0014		1.43	0.00243	3.13	<0.00002	63.4	0.194	36.7	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	5/1/2021 10:40	ZS6051	M	C129102	<0.0005	<0.01	<0.0002	0.0195	11.1	0.0206	<0.0000019	0.0065	0.0014		1.47	0.00228	3.21	<0.00002	63.7	0.191	36.8	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	9.0
RSEM-R6W-EOP	5/2/2021 12:30	ZS6044	M	C129102	<0.0005	<0.01	<0.0002	0.0156	10.3	0.0216	<0.0000019	0.0054	0.0013		1.29	0.00198	2.94	<0.00002	49.0	0.181	29.5	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	4.1
RSEM-R6W-EOP	5/2/2021 12:40	ZS6046	D	C129102	<0.0005	<0.01	<0.0002	0.0161	10.5	0.0218	<0.0000019	0.0053	0.0013		1.31	0.00203	3.04	<0.00002	49.9	0.187	28.9	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	4.0
RSEM-R6W-EOP	5/3/2021 10:25	ZS6022	M	C129096	<0.0005	<0.01	<0.0002	0.0175	9.69	0.019	<0.0000019	0.0097	0.0016		1.43	0.00441	2.95	<0.00002	56.2	0.199	31.7	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	25
RSEM-R6W-EOP	5/4/2021 13:50	ZS9946	M	C129944	<0.0005	<0.01	<0.0002	0.0209	10.5	0.0167	0.000002	0.0087	0.0016		1.57	0.00357	3.38	<0.00002	63.2	0.198	36.7	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001	18
RSEM-R6W-EOP	5/5/2021 12:30	ZT3123	M	C130491	0.00064	<0.01	<0.0002	0.024	11.7	0.0171	0.0000021	0.008	0.0018		1.74	0.00321	3.7	<0.00002	74.3	0.205	42.9	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	5/6/2021 15:00	ZT3104	M	C130484	<0.0005	<0.01	<0.0002	0.0261	12.3	0.023	<0.0000019	0.0073	0.0018		1.80	0.00284	3.46	<0.00002	83.6	0.198	49.5	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	30
RSEM-R6W-EOP	5/7/2021 11:00	ZT3094	M	C130477	<0.0005	<0.01	<0.0002	0.0262	12.3	0.0209	0.0000027	0.0077	0.0018		1.88	0.00309	3.55	<0.00002	86.6	0.206	49.9	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	27
RSEM-R6W-EOP	5/8/2021 12:30	ZT6587	M	C130995	<0.0005	<0.01	<0.0002	0.0253	12.0	0.0165	<0.0000019	0.0079	0.0019		1.91	0.00405	3.61	<0.00002	85.5	0.208	51.5	<0.00001	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001	19
RSEM-R6W-EOP	5/9/2021 13:10	ZT6967	M	C131057	<0.0005	<0.01	<0.0002	0.0256	13.0	0.0167	0.0000028	0.0082	0.002		2.01	0.00486	3.46	<0.00002	90.9	0.214	57.0	<0.00001	<0.005	<0.005	0.00191	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	5/10/2021 5:30	ZT6908	M	C131048	<0.0005	<0.01	<0.0002	0.0248	12.9	0.0188	<0.0000019	0.0079	0.0019		1.88	0.00462	3.29	<0.00002	89.4	0.213	56.1	<0.00001	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	5/11/2021 10:50	ZU0198	M	C131591	<0.0005	<0.01	<0.0002	0.0212	12.4	0.0217	<0.0000019	0.007	0.002		1.81	0.00424	3.29	<0.00002	86.9	0.202	52.6	<0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	5/12/2021 11:00	ZU2125	M	C131927	<0.0005	<0.01	<0.0002	0.0216	13.2	0.0223	<0.0000019	0.0068	0.0018		1.83	0.00363	3.59	<0.00002	86.5	0.204	56.3	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	14
RSEM-R6W-EOP	5/13/2021 10:40	ZU4937	M	C132324	<0.0005	<0.01	<0.0002	0.0234	12.2	0.021	<0.0000019	0.0065	0.0017		1.74	0.00356	3.53	<0.00002	78.5	0.203	48.4	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	12
RSEM-R6W-EOP	5/14/2021 10:10	ZU4952	M	C132327	<0.0005	<0.01	<0.0002	0.022	12.7	0.0189	<0.0000019	0.0058	0.0017		1.72	0.00428	3.49	<0.00002	68.8	0.204	44.6	<0.00001	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	5/15/2021 14:40	ZU7899	M	C132915	<0.0005	<0.01	<0.0002	0.0202	15.1	0.0121	<0.0000019	0.0057	0.0021		1.94	0.00648	3.09	<0.00002	66.4	0.211	45.6	<0.00001	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001	12
RSEM-R6W-EOP	5/15/2021 14:50	ZU7900	D	C132915	<0.0005	<0.01	<0.0002	0.0199	14.9	0.0116	<0.0000019	0.0056	0.002		1.91	0.0064	3.08	<0.00002	66.0	0.214	45.9	<0.00001	<0.005	<0.005	0.00229	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	5/16/2021 14:30	ZU7831	M	C132904	<0.0005	<0.01	<0.0002	0.0223	16.7	0.0108	<0.0000019	0.0054	0.0021		2.11	0.00801	3.5	<0.00002	68.2	0.228	51.1	<0.00001	<0.005	<0.005	0.00224	<0.005	<0.005	<0.0001	8.2
RSEM-R6W-EOP	5/17/2021 16:00	ZU9399	M	C133243	<0.0005	<0.01	<0.0002	0.0179	15.4	0.0109	<0.0000019	0.0051	0.002		1.87	0.0064	2.93	<0.00002	56.8	0.22	40.4	<0.00001	<0.005	<0.005	0.00224	<0.005	<0.005	<0.0001	9.7
RSEM-R6W-EOP	5/17/2021 16:10	ZU9400	D	C133243	<0.0005	<0.01	<0.0002	0.0178	15.4	0.0106	<0.0000019	0.005	0.002		1.84	0.00624	2.85	<0.00002	57.0	0.22	40.5	<0.00001	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001	9.6
RSEM-R6W-EOP	5/18/2021 16:30	ZV2802	M	C133850	<0.0005	<0.01	<0.0002	0.0209	15.4	0.0081	<0.0000019	0.007	0.0018		2.05	0.00707	3.14	<0.00002	67.9	0.224	45.2	<0.00001	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001	28
RSEM-R6W-EOP	5/19/2021 13:50	ZV3575	M	C134016	<0.0005	<0.01	<0.0002	0.0235	15.5	0.0043	<0.0000019	0.0087	0.0016		2.24	0.00802	3.39	<0.00002	76.9	0.232	49.4	<0.00001	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	5/20/2021 12:10	ZV5699	M	C134406	<0.0005	<0.01	<0.0002	0.0253	17.1	0.0048	<0.0000019	0.0077	0.0017		2.48	0.008	3.35	<0.00002	74.8	0.24	52.4	<0.00001	<0.005	<0.005	0.0026	<0.005	<0.005	<0.0001	7.7
RSEM-R6W-EOP	5/21/2021 11:00	ZV5659	M	C134400	<0.0005	<0.01	<0.0002	0.0241	17.5	0.0027	<0.0000019	0.0068	0.0018		2.53	0.00769	3.19	<0.00002	70.2	0.246	51.9	<0.00001	<0.005	<0.005	0.00261	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	5/21/2021 11:10	ZV5660	D	C134400	<0.0005	<0.01	<0.0002	0.0248	18.1	0.003	<0.0000019	0.0069	0.0018		2.54	0.008	3.38	<0.00002	72.0	0.248	53.0	<0.00001	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	5/22/2021 11:30	ZV6994	M	C134601	<0.0005	<0.01	<0.0002	0.0242	18.6	0.0028	<0.0000019	0.0065	0.002		2.48	0.00771	3.18	<0.00002	72.0	0.244	52.4	<0.00001	<0.005	<0.005	0.00283	<0.005	<0.005	<0.0001	9.3
RSEM-R6W-EOP	5/23/2021 14:20	ZV8624	M	C134923	<0.0005	<0.01	<0.0002	0.0248	17.8	0.0012	<0.0000019	0.007	0.0019		2.49	0.00702	3.26	<0.00002	74.3	0.248	54.4	<0.00001	<0.005	<0.005	0.00272	<0.005	<0.005	<0.0001	8.5
RSEM-R6W-EOP	5/23/2021 14:30	ZV8625	D	C134923	<0.0005	<0.01	<0.0002	0.0245	17.2	0.0012	<0.0000019	0.0067	0.0018		2.42	0.007	3.24	<0.00002	72.4	0.241	52.4	<0.00001	<0.005	<0.005	0.00262	<0.005	<0.005	<0.0001	7.9
RSEM-R6W-EOP	5/24/2021 11:50	ZW1262	M	C135427	<0.0005	<0.01	<0.0002	0.0241	16.1	0.0017	<0.0000019	0.0072	0.0017		2.35	0.00599	3.18	<0.00002	77.3	0.224	54.7	<0.00001	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001	5.1
RSEM-R6W-EOP	5/25/2021 9:30	ZW1243	M	C135423	0.00052	<0.01	<0.0002	0.024	13.8	0.0058	<0.0000019	0.0077	0.0015		2.12	0.00469	3.3	<0.00002	81.5	0.208	54.3	<0.00001	<0.005	<0.005	0.00207	<0.005	<0.005	<0.0001	12
RSEM-R6W-EOP	5/26/2021 12:00	ZW4842	M	C136104	0.00051	<0.01	<0.0002	0.032	13.6	0.0042	<0.0000019	0.0139	0.0015		2.57	0.00933	3.83	<0.00002	106	0.245	68.5	<0.00001	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	5/27/2021 11:10	ZW4835	M	C136103	<0.0005	<0.01	<0.0002	0.0319	15.5	0.0071	<0.0000019	0.0119	0.0018		2.56	0.00854	3.58	<0.00002	109	0.255	74.6	<0.00001	<0.005	<0.005	0.00273	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	5/28/2021 13:15	ZW4301	M	C136040	0.0005	<0.01	<0.0002	0.0331	17.0	0.0079	<0.0000019	0.0098	0.002		2.53	0.0074	3.34	<0.00002	106	0.261	75.6	<0.00001	<0.005	<0.005	0.00274	<0.005	<0.005	<0.0001	8.6
RSEM-R6W-EOP	5/29/2021 11:00	ZW9128	M	C136816	<0.0005	<0.01	<0.0002	0.0299	17.1	0.0079	<0.0000019	0.0092	0.0022		2.46	0.0072	3.36	<0.00002	102	0.262	74.9	<0.00001	<0.005	<0.005	0.00257	<0.005	<0.005	<0.0001	5.3
RSEM-R6W-EOP	5/30/2021 10:00	ZW9155	M	C136825	<0.0005	<0.01	<0.0002	0.0325	16.9	0.0056	<0.0000019	0.0088	0.0021		2.51	0.00639	3.5	<0.00002	106	0.263	79.1	<0.00001	<0.005	<0.005	0.00254	<0.005	<0.005	<0.0001	6.0
RSEM-R6W-EOP	5/31/2021 6:20	ZW9168	M	C136832	0.00051	<0.01	<0.0002	0.0315	16.6	0.0057	<0.0000019	0.0085	0.002		2.46	0.00593	3.53	<0.00002	105	0.258	77.5	<0.00001	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001	6.9
RSEM-R6W-EOP	6/1/2021 10:45	ZX3967	M	C137816	<0.0005	<0.01	<0.0002	0.027	15.5	0.0024	<0.0000019	0.0071	0.0017		2.24	0.00558	3.32	<0.00002	94.3	0.261	66.6	<0.00001	<0.005	<0.005	0.00217	<0.005	<0.005	<0.0001	6.6
RSEM-R6W-EOP	6/1/2021 10:55	ZX3968	D	C137816	<0.0005	<0.01	<0.0002	0.0264	15.4	0.0024	<0.0000019	0.0071	0.0018		2.25	0.00557	3.27	<0.00002	92.1	0.255	66.7	<0.00001	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	6.7
RSEM-R6W-EOP	6/2/2021 13:25	ZX5271	M	C138096	<0.0005	<0.01	<0.0002	0.0297	13.8	0.0011	<0.0000019	0.0081	0.0015		2.36	0.00519	3.56	<0.00002	101	0.261	70.1	<0.00001	<0.005	<0.005	0.00212	<0.005	<0.005	<0.0001	7.7
RSEM-R6W-EOP	6/3/2021 11:30	ZX7148	M	C138404	<0.0005	<0.01	<0.0002	0.0306	14.2	0.0019	<0.0000019	0.0086	0.0015		2.53	0.0054	3.67	<0.00002	111	0.258	76.2	<0.00001	<0.005	<0.005	0.00213	<0.005	<0.005	<0.0001	7.2
RSEM-R6W-EOP	6/3/2021 11:40	ZX7149	D	C138404	<0.0005	<0.01	<0.0002	0.0311	13.9	0.0018	<0.0000019	0.0085	0.0014		2.50	0.00537	3.58	<0.00002	108	0.258	74.8	<0.00001	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	7.4
RSEM-R6W-EOP	6/4/2021 12:30	ZX6907	M	C138357	<0.0005	<0.01	<0.0002	0.0274	13.3	0.002	<0.0000019	0.0072	0.0014		2.19	0.00458	3.41	<0.00002	92.6	0.246	64.5	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	5.6
RSEM-R6W-EOP	6/5/2021 11:00	ZY0222	M	C138844	<0.0005	<0.01	<0.0002	0.0242	13.5	0.0021	<0.0000019	0.0056	0.0013		1.92	0.00351	2.87	<0.00002	78.3	0.226	54.0	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	7.0
RSEM-R6W-EOP	6/6/2021 10:50	ZY0253	M	C138850	<0.0005	<0.01	<0.0002	0.0182	12.3	0.0022	<0.0000019	0.0046	0.0012		1.65	0.00327	2.81	<0.00002	65.0	0.207	44.1	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	7.0
RSEM-R6W-EOP	6/7/2021 11:10	ZY3089	M	C139476	<0.0005	<0.01	<0.0002	0.0175	12.0	0.0028	<0.0000019	0.0041	0.0012		1.55	0.00272	2.61	<0.00002	56.8	0.225	38.5	<0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	6.7
RSEM-R6W-EOP	6/8/2021 11:40	ZY5039	M	C139835	<0.0005	<0.01	<0.0002	0.0185	15.1	0.0028	<0.0000019	0.0042	0.0015		1.79	0.00428	2.58	<0.00002	61.1	0.234	42.5	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	6/9/2021 13:50	ZY6854	M	C140198	<0.0005	<0.01	<0.0002	0.0204	16.1	<0.001	<0.0000019	0.0048	0.0017		1.88	0.00417	2.73	<0.00002	67.9	0.26	47.3	<0.00001	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	6/10/2021 12:05	ZY8800	M	C140527	<0.0005	<0.01	<0.0002	0.0217	13.5	0.0014	<0.0000019	0.0055	0.0014		1.85	0.00412	2.99	<0.00002	73.2	0.235	49.7	<0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	8.4
RSEM-R6W-EOP	6/11/2021 14:20	ZY9644	M	C140675	<0.0005	<0.01	<0.0002	0.0224	12.9	0.0013	<0.0000019	0.0056	0.0013		1.81	0.00366	3.03	<0.00002	76.9	0.227	52.0	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	6.1
RSEM-R6W-EOP	6/12/2021 10:25	ZZ1989	M	C141056	<0.0005	<0.01	<0.0002	0.0205	12.6	0.0014	<0.0000019	0.0056	0.0013		1.76	0.00341	3.15	<0.00002	72.2	0.221	49.4	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	7.8
RSEM-R6W-EOP	6/13/2021 14:15	ZZ1994	M	C141057	<0.0005	<0.01	<0.0002	0.0203	12.9	0.0017	<0.0000019	0.0055	0.0013		1.71	0.00327	3.04	<0.00002	68.2	0.219	45.8	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	8.2
RSEM-R6W-EOP	6/13/2021 14:25	ZZ1995	D	C141057	<0.0005	<0.01	<0.0002	0.0198	12.9	0.0017	<0.0000019	0.0054	0.0013		1.68	0.00322	3.02	<0.00002	67.6	0.217	47.7	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	8.0
RSEM-R6W-EOP	6/14/2021 10:40	ZZ2010	M	C141059	<0.0005	<0.01	<0.0002	0.0197	12.6	0.004	<0.0000019	0.0054	0.0012		1.69	0.00308	3.09	<0.00002	67.0	0.21	46.2	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	8.8
RSEM-R6W-EOP	6/15/2021 11:40	AAB014	M	C142607	<0.0005	<0.01	<0.0002	0.0214	12.3	0.0047	<0.0000019	0.0047	0.0011		1.71	0.00253	2.94	<0.00002	62.9	0.205	41.8	<0.00001	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	6.2
RSEM-R6W-EOP	6/16/2021 12:20	AAB003	M	C142604	<0.0005	<0.01	<0.0002	0.0185	12.8	0.0055	<0.0000019	0.0042	0.0012		1.63	0.0025	2.79	<0.00002	53.2	0.207	35.0	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	8.6
RSEM-R6W-EOP	6/17/2021 11:20	AAC474	M	C142866	<0.0005	<0.01	<0.0002	0.0227	12.3	0.0074	<0.0000019	0.0061	0.0011		2.06	0.00743	2.69	<0.00002	70.0	0.195	22.8	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	22
RSEM-R6W-EOP	6/18/2021 12:20	AAC476	M	C142867	0.00054	<0.01	<0.0002	0.029	12.5	0.0049	<0.0000019	0.0072	0.0012		2.76	0.00785	3.15	<0.00002	86.4	0.194	27.8	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	15

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-EOP	6/19/2021 11:20	AAF585	M	C143352	0.00051	<0.01	<0.0002	0.0321	12.2	0.005	<0.0000019	0.007	0.0012		2.59	0.00594	3.43	<0.00002	83.5	0.193	36.9	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	9.4
RSEM-R6W-EOP	6/20/2021 10:30	AAF490	M	C143330	0.00052	<0.01	<0.0002	0.0256	13.1	0.0043	0.0000025	0.0058	0.0012		2.41	0.00458	3.06	<0.00002	76.2	0.191	19.6	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	4.5
RSEM-R6W-EOP	6/21/2021 6:00	AAF561	M	C143340	<0.0005	<0.01	<0.0002	0.0234	12.1	0.0036	<0.0000019	0.0047	0.0011		2.06	0.00401	2.94	<0.00002	63.5	0.173	20.6	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	6.4
RSEM-R6W-EOP	6/22/2021 14:25	AAL816	M	C144319	<0.0005	<0.01	<0.0002	0.0173	10.4	0.0048	<0.0000019	0.0039	<0.001		1.67	0.00277	2.68	<0.00002	45.4	0.176	13.4	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	6.2
RSEM-R6W-EOP	6/23/2021 14:35	AAO113	M	C144722	0.00052	0.022	<0.0002	0.0158	10.2	0.0051	<0.0000019	0.0036	<0.001		1.38	0.00257	2.97	<0.00002	38.5	0.165	18.1	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001	7.5
RSEM-R6W-EOP	6/23/2021 14:45	AAO114	D	C144722	<0.0005	0.021	<0.0002	0.0159	10.2	0.0056	<0.0000019	0.0036	<0.001		1.38	0.00259	2.36	<0.00002	38.6	0.165	18.2	<0.00001	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	6.8
RSEM-R6W-EOP	6/24/2021 14:45	AAQ176	M	C144970	<0.0005	0.021	<0.0002	0.0162	8.94	0.0054	0.0000023	0.0029	0.001		1.23	0.00219	2.15	<0.00002	30.8	0.154	15.4	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	6/25/2021 13:10	AAQ537	M	C144894	<0.0005	<0.01	<0.0002	0.0138	8.69	0.0059	0.0000026	0.0025	<0.001		1.04	0.00199	2.09	<0.00002	25.2	0.148	11.5	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001	10
RSEM-R6W-EOP	6/25/2021 13:10	AAP487	D	C144894	<0.0005	<0.01	<0.0002	0.0138	8.76	0.006	<0.0000019	0.0025	0.001		1.08	0.00189	2.07	<0.00002	25.6	0.15	11.4	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001	10
RSEM-R6W-EOP	6/26/2021 14:35	AAU431	M	C145599	0.00053	<0.01	<0.0002	0.0135	11.2	0.007	<0.0000019	0.003	<0.001		1.21	0.00211	2.86	<0.00002	28.2	0.181	10.8	<0.00001	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	7.7
RSEM-R6W-EOP	6/27/2021 13:20	AAU317	M	C145583	0.00055	<0.01	<0.0002	0.0152	11.4	0.0077	0.000003	0.0032	<0.001		1.30	0.00219	2.95	<0.00002	30.0	0.178	13.9	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	7.0
RSEM-R6W-EOP	6/27/2021 13:30	AAU318	D	C145583	0.0005	<0.01	<0.0002	0.0147	11.0	0.0074	0.0000021	0.0031	<0.001		1.27	0.0021	2.91	<0.00002	29.2	0.175	13.1	<0.00001	<0.005	<0.005	0.00098	<0.005	<0.005	<0.0001	6.6
RSEM-R6W-EOP	6/28/2021 13:35	AAX135	M	C146134	0.00058	<0.01	<0.0002	0.0177	12.4	0.0067	<0.0000019	0.0038	0.001		1.48	0.00213	3.09	<0.00002	36.0	0.193	13.9	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	8.7
RSEM-R6W-EOP	6/29/2021 15:10	AAZ026	M	C146532	0.0009	0.028	<0.0002	0.0133	10.7	0.0103	<0.0000019	0.0031	0.0021		1.28	0.00197	2.85	<0.00002	27.6	0.184	24.6	<0.00001	<0.005	<0.005	0.00091	<0.005	<0.005	0.0001	6.4
RSEM-R6W-EOP	6/30/2021 10:50	AAZ000	M	C146528	0.0006	0.027	<0.0002	0.0118	11.0	0.0098	<0.0000019	0.0029	<0.001		1.18	0.00187	2.78	<0.00002	26.2	0.171	24.5	<0.00001	<0.005	<0.005	0.00089	<0.005	<0.005	0.00011	3.3
RSEM-R6W-EOP	6/30/2021 11:00	AAZ001	D	C146528	0.00061	0.032	<0.0002	0.0119	11.0	0.0101	<0.0000019	0.0029	<0.001		1.21	0.00193	2.83	<0.00002	25.9	0.176	23.6	<0.00001	<0.005	<0.005	0.00089	<0.005	<0.005	0.00011	3.0
RSEM-R6W-EOP	7/1/2021 15:00	ABB250	M	C146903	0.00073	0.054	<0.0002	0.0146	11.3	0.0163	<0.0000019	0.0032	0.001		1.32	0.00197	2.71	<0.00002	30.1	0.174	25.9	<0.00001	<0.005	<0.005	0.00092	<0.005	<0.005	<0.0001	4.3
RSEM-R6W-EOP	7/2/2021 12:10	ABB258	M	C146905	0.00073	0.067	<0.0002	0.0155	11.2	0.0158	<0.0000019	0.0034	<0.001		1.38	0.00204	2.75	<0.00002	32.5	0.176	26.2	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	0.00011	6.0
RSEM-R6W-EOP	7/2/2021 12:20	ABB260	D	C146905	0.00073	0.06	<0.0002	0.0154	11.4	0.0158	<0.0000019	0.0034	<0.001		1.38	0.00194	2.72	<0.00002	33.2	0.174	26.8	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	0.00048	5.5
RSEM-R6W-EOP	7/3/2021 10:30	ABE024	M	C147272	0.00071	0.06	<0.0002	0.0165	11.0	0.0115	<0.0000019	0.0039	<0.001		1.49	0.00226	2.75	<0.00002	35.5	0.175	27.2	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	0.00015	6.4
RSEM-R6W-EOP	7/4/2021 13:30	ABD991	M	C147267	0.00075	0.055	<0.0002	0.0223	10.4	0.012	0.0000025	0.0047	<0.001		1.58	0.00199	2.94	<0.00002	35.3	0.178	29.5	<0.00001	<0.005	<0.005	0.00107	<0.005	<0.005	0.0001	6.5
RSEM-R6W-EOP	7/4/2021 13:40	ABD992	D	C147267	0.00083	0.064	<0.0002	0.0211	10.4	0.0115	<0.0000019	0.0042	0.0011		1.58	0.00229	3.32	<0.00002	35.5	0.173	28.0	<0.00001	<0.005	<0.005	0.001	<0.005	<0.005	0.00017	6.3
RSEM-R6W-EOP	7/5/2021 9:25	ABG199	M	C147674	0.00074	0.056	<0.0002	0.0209	11.1	0.0109	<0.0000019	0.0046	0.0015		1.70	0.00226	2.88	<0.00002	41.0	0.171	32.4	<0.00001	<0.005	<0.005	0.00105	<0.005	0.0137	<0.0001	0.52
RSEM-R6W-EOP	7/6/2021 10:00	ABJ179	M	C148228	<0.0005	0.04	<0.0002	0.0199	11.0	0.0028	<0.0000019	0.005	<0.001		1.95	0.00266	3.15	<0.00002	40.4	0.216	31.6	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	2.5
RSEM-R6W-EOP	7/7/2021 11:30	ABK532	M	C148516	<0.0005	0.053	<0.0002	0.0191	11.6	0.0033	<0.0000019	0.0052	<0.001		1.96	0.00249	3.04	<0.00002	42.4	0.196	35.0	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	0.00014	3.8
RSEM-R6W-EOP	7/8/2021 11:30	ABM761	M	C148925	<0.0005	0.034	<0.0002	0.0216	11.6	0.0021	<0.0000019	0.0054	<0.001		2.02	0.00289	2.95	<0.00002	44.7	0.213	36.3	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	0.00012	3.0
RSEM-R6W-EOP	7/9/2021 9:50	ABM748	M	C148923	<0.0005	0.033	<0.0002	0.0226	12.2	0.0017	<0.0000019	0.0055	<0.001		2.11	0.00302	2.92	<0.00002	47.2	0.194	37.7	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	2.6
RSEM-R6W-EOP	7/10/2021 10:00	ABP528	M	C149429	<0.0005	0.034	<0.0002	0.0228	12.7	0.0025	<0.0000019	0.0055	<0.001		2.19	0.00308	2.84	<0.00002	48.7	0.231	37.4	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	0.00013	2.4
RSEM-R6W-EOP	7/11/2021 10:00	ABP673	M	C149459	<0.0005	0.053	<0.0002	0.024	13.0	0.007	<0.0000019	0.0058	<0.001		2.24	0.00314	2.96	<0.00002	53.0	0.223	41.7	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	0.00016	3.2
RSEM-R6W-EOP	7/12/2021 4:30	ABP854	M	C149486	<0.0005	0.039	<0.0002	0.024	12.9	0.003	<0.0000019	0.006	<0.001		2.28	0.00325	2.86	<0.00002	55.9	0.22	41.6	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	0.00023	2.8
RSEM-R6W-EOP	7/13/2021 15:20	ABU091	M	C150243	<0.0005	0.033	<0.0002	0.0281	13.4	0.0017	0.0000027	0.0065	<0.001		2.36	0.00327	2.88	<0.00002	64.2	0.215	49.3	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	0.00015	2.5
RSEM-R6W-EOP	7/14/2021 13:45	ABX615	M	C150851	<0.0005	0.031	<0.0002	0.0268	12.3	0.0021	<0.0000019	0.0064	<0.001		2.35	0.00329	2.78	<0.00002	59.7	0.22	46.7	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	0.00014	3.0
RSEM-R6W-EOP	7/15/2021 15:35	ABY388	M	C150960	<0.0005	0.038	<0.0002	0.0237	11.7	0.0019	<0.0000019	0.006	<0.001		2.12	0.00285	2.61	<0.00002	51.5	0.22	44.6	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	0.00023	2.8
RSEM-R6W-EOP	7/16/2021 13:00	ABZ187	M	C151029	<0.0005	0.037	<0.0002	0.02	11.2	0.0018	<0.0000019	0.0053	<0.001		1.90	0.00242	2.63	<0.00002	47.2	0.208	39.7	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	0.00018	2.7
RSEM-R6W-EOP	7/17/2021 15:25	ACC246	M	C151542	<0.0005	0.018	<0.0002	0.0191	10.5	0.0037	<0.0000019	0.0052	<0.001		1.80	0.00246	2.54	<0.00002	43.9	0.192	42.0	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	0.00011	6.5
RSEM-R6W-EOP	7/18/2021 13:40	ACC416	M	C151549	0.00068	0.218	<0.0002	0.0228	11.8	0.0078	<0.0000019	0.006	0.0011		2.13	0.00326	3.87	<0.00002	56.0	0.196	36.6	0.000013	<0.005	0.0134	0.00129	<0.005	<0.005	0.00051	8.0
RSEM-R6W-EOP	7/18/2021 13:50	ACC417	D	C151549	0.0005	0.068	<0.0002	0.0201	10.1	0.0046	<0.0000019	0.0057	<0.001		1.91	0.00285	3.04	<0.00002	45.1	0.197	42.3	<0.00001	<0.005	0.009	0.0014	<0.005	<0.005	0.00021	8.2
RSEM-R6W-EOP	7/19/2021 15:25	ACF037	M	C151946	0.0005	0.085	<0.0002	0.0195	9.96	0.0061	<0.0000019	0.0061	<0.001		2.01	0.00261	3.15	<0.00002	49.3	0.193	43.8	<0.00001	<0.005	0.0062	0.00133	<0.005	<0.005	0.00024	4.5
RSEM-R6W-EOP	7/20/2021 14:50	ACH815	M	C152456	0.00078	0.013	<0.0002	0.023	9.88	0.0019	<0.0000019	0.005	<0.001		1.94	0.00245	2.48	<0.00002	47.5	0.146	16.8	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	3.5
RSEM-R6W-EOP	7/21/2021 15:50	ACH933	M	C152481	0.00055	0.014	<0.0002	0.0208	9.63	0.0023	<0.0000019	0.0047	<0.001		1.83	0.00231	2.5	<0.00002	43.7	0.148	18.2	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001	8.7
RSEM-R6W-EOP	7/22/2021 17:25	ACL554	M	C152988	0.00069	0.019	<0.0002	0.0287	15.6	0.0137	<0.0000019	0.0063	0.004		4.49	0.00291	2.25	<0.00002	43.4	0.546	38.4	0.000015	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001	25
RSEM-R6W-EOP	7/23/2021 11:50	ACL701	M	C153012	<0.0005	0.048	<0.0002	0.0235	9.51	0.0098	<0.0000019	0.0065	0.0011		2.06	0.00465	2.71	<0.00002	51.4	0.17	20.7	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001	9.6
RSEM-R6W-EOP	7/24/2021 14:50	ACO407	M	C153513	0.00052	0.027	<0.0002	0.0253	10.5	0.0105	<0.0000019	0.0064	0.0015		2.06	0.00411	2.9	<0.00002	61.4	0.189	27.3	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	0.0001	6.8
RSEM-R6W-EOP	7/25/2021 14:10	ACO190	M	C153467	<0.0005	0.022	<0.0002	0.029	11.6	0.0109	<0.0000019	0.0066	0.0021		2.16	0.00386	2.91	<0.00002	67.0	0.199	36.6	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	3.3
RSEM-R6W-EOP	7/26/2021 10:45	ACN521	M	C153324		<0.01	<0.0002	0.0325	15.8		<0.0000019	0.0067	0.0015		2.29			<0.00002	84.8	0.232	71.2	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	2.7
RSEM-R6W-EOP	7/27/2021 11:20	ACT044	M	C154246	<0.0005	<0.01	<0.0002	0.0329	13.6	0.0098	0.0000019	0.005	0.0026		2.03	0.0036	2.55	<0.00002	60.7	0.193	39.8	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	2.9
RSEM-R6W-EOP	7/28/2021 12:20	ACV590	M	C154699	<0.0005	<0.01	<0.0002	0.0236	14.1	0.0049	<0.0000019	0.0051	0.0021		1.89	0.00409	2.53	<0.00002	61.4	0.235	57.1	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	3.7
RSEM-R6W-EOP	7/29/2021 12:00	ACY652	M	C155287	<0.0005	<0.01	<0.0002	0.0209	14.1	0.0065	<0.0000019	0.0046	0.0018		1.73	0.00393	2.45	<0.00002	54.6	0.233	56.1	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	3.6
RSEM-R6W-EOP	7/30/2021 10:40	ACY654	M	C155288	<0.0005	<0.01	<0.0002	0.0209	16.5	0.0091	<0.0000019	0.0041	0.0016		1.86	0.00392	2.64	<0.00002	57.2	0.281	52.7	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	3.7
RSEM-R6W-EOP	7/31/2021 12:00	ADA374	M	C155508	<0.0005	<0.01	<0.0002	0.0179	15.0	0.0093	<0.0000019	0.0037	0.0016		1.61	0.0031	2.84	<0.00002	50.7	0.227	51.0	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	4.0
RSEM-R6W-EOP	8/1/2021 10:40	ADC692	M	C155924	<0.0005	<0.01	<0.0002	0.0198	14.2	0.0056	<0.0000019	0.0035	0.0013		1.43	0.00346	2.28	<0.00002	49.2	0.197	47.4	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001	3.3
RSEM-R6W-EOP	8/2/2021 5:40	ADC745	M	C155936	<0.0005	<0.01	<0.0002	0.0227	16.9	0.0112	<0.0000019	0.0043	0.0014		1.82	0.00402	2.56	<0.00002	60.3	0.278	60.4	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	4.0
RSEM-R6W-EOP	8/5/2021 11:05	ADK135	M	C157133	0.0008	<0.01	<0.0002	0.0256	20.2	0.0026	0.0000019	0.0044	0.0014		1.94	0.0042	2.62	<0.00002	70.2	0.244	62.5	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	3.4
RSEM-R6W-EOP	8/6/2021 11:50	ADK123	M	C157131	0.00056	<0.01	<0.0002	0.0256	16.1	0.0014	<0.0000019	0.0046	0.0013		1.82	0.00315	2.45	<0.00002	65.5	0.251	58.9	<0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	5.9
RSEM-R6W-EOP	8/7/2021 11:45	ADM458	M	C157545	0.00065	0.014	<0.0002	0.0298	18.1	0.0013	<0.0000019	0.0057	0.0013		2.39	0.00496	2.68	<0.00002	88.0	0.289	58.7	<0.00001	<0.005	<0.005	0.00191	<0.005	<0.005	0.00061	2.5
RSEM-R6W-EOP	8/8/2021 12:40	ADN232	M	C157651	0.00053	<0.01	<0.0002	0.0323	14.4	0.0017	<0.0000019	0.006	0.0013		2.05	0.00424	2.6	<0.00002	75.5	0.203	52.8	<0.00001	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001	4.1
RSEM-R6W-EOP	8/9/2021 11:55	ADM368	M	C157523	0.00055	<0.01	<0.0002	0.03	15.2	<0.001	<0.0000019	0.0063	0.0015		2.28	0.0049	2.61	<0.00002	85.9	0.235	70.7	<0.00001	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001	4.5
RSEM-R6W-EOP	8/10/2021 11:00	ADP900	M	C158211	0.00055	<0.01	<0.0002	0.0387	15.1	0.0028	<0.0000019	0.006	0.0016		2.19	0.00416	2.66	<0.00002	83.9	0.205	59.5	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	2.7
RSEM-R6W-EOP	8/11/2021 12:50	ADR989	M	C158615	0.00054	<0.01	<0.0002	0.0407	15.2	0.003	<0.0000019	0.0059	0.0017		2.30	0.00404	2.61	<0.00002	83.2	0.207	58.2	<0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	1.4
RSEM-R6W-EOP	8/12/2021 11:50	ADU539	M	C159104	0.00065	<0.01	<0.0002	0.0445	19.3	0.0034	<0.0000019	0.0068	0.002		2.87	0.00443	3.09	<0.00002	106	0.272	88.2	<0.00001	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001	0.99
RSEM-R6W-EOP	8/13/2021 11:00	ADU546	M	C159105	0.00058	<0.01	<0.0002	0.0375	17.3	0.0033	<0.0000019	0.0057	0.0017		2.52	0.00381	2.58	<0.00002	92.4	0.237	80.5	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	1.9
RSEM-R6W-EOP	8/14/2021 11:30	ADW201	M	C159435	0.00055	<0.01	<0.0002	0.0374	17.6	0.0032	<0.0000019	0.0058	0.0016		2.56	0.00484	2.63	<0.00002	89.2	0.253	76.8	<0.00001	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001	1.6
RSEM-R6W-EOP	8/15/2021 11:50	ADW428	M	C159489	0.00059	<0.01	<0.0002	0.0387	18.9	0.0032	<0.0000019	0.0062	0.0016		2.72	0.00518	2.75	<0.00002	91.9	0.257	80.9	0.00001	<0.005	<0.005	0.00199	<0.005	<0.005	<0.0001	1.4
RSEM-R6W-EOP	8/16/2021 11:50	ADY263	M	C159861	0.0006	<0.01	<0.0002	0.0374	19.6	0.0038	<0.0000019	0.0062	0.0015		3.01	0.00518	2.6	<0.00002	90.1	0.297	83.6	<0.00001	<0.005	<0.005	0.00197	<0.005	<0.005	<0.0001	1.8
RSEM-R6W-EOP	8/17/2021 11:50	AED546	M	C160795	0.00061	<0.01	<0.0002	0.033	19.5	0.0026	<0.0000019	0.0058	0.0016		2.89	0.00525	2.43	<0.00002	90.5	0.257	75.1	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	1.1
RSEM-R6W-EOP	8/18/2021 11:30	AED517	M	C160793	0.00067	<0.01	<0.0002	0.0327	18.1	0.0032	<0.0000019	0.0058	0.0014		2.78	0.00499	2.38	<0.00002	86.1	0.239	74.3	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	1.3
RSEM-R6W-EOP	8/19/2021 14:10	AEF598	M	C161077	0.00059	<0.01	<0.0002	0.0325	18.4	0.0027	<0.0000019	0.006	0.0013		2.88	0.00682	3.01	<0.00002	87.3	0.249	71.0	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	1.3
RSEM-R6W-EOP	8/20/2021 10:20	AEF523	M	C161059	0.00056	<0.01	<0.0002	0.033	17.8	0.0027	<0.0000019	0.0059	0.0012		2.89	0.00466	2.29	<0.00002	83.5	0.241	70.4	0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	1.1
RSEM-R6W-EOP	8/21/2021 11:00	AEI349	M	C161420	0.00052	<0.01	<0.0002	0.0315	17.4	0.0027	<0.0000019	0.0056	0.0012		2.75	0.00473	2.17	<0.00002	75.4	0.236	63.8	0.000011	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	1.7

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-EOP	8/22/2021 12:20	AEI411	M	C161433	0.00086	<0.01	<0.0002	0.0296	16.9	0.0077	<0.0000019	0.0063	0.0011		3.10	0.00561	2.08	<0.00002	73.6	0.284	56.2	0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	8/23/2021 11:30	AEL591	M	C161925	0.00065	<0.01	<0.0002	0.0315	13.9	0.0087	<0.0000019	0.007	0.0011		3.09	0.00795	2.06	<0.00002	66.3	0.307	57.3	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	9.8
RSEM-R6W-EOP	8/24/2021 17:05	AEN130	M	C162291	0.00064	<0.01	<0.0002	0.0432	17.4	0.019	<0.0000019	0.0082	0.0033		3.61	0.00845	2.42	<0.00002	86.8	0.34	69.8	<0.00001	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	4.1
RSEM-R6W-EOP	8/25/2021 16:45	AEP241	M	C162703	0.00064	<0.01	<0.0002	0.0408	19.3	0.0248	<0.0000019	0.0069	0.005		3.42	0.00733	2.2	<0.00002	78.3	0.355	72.5	0.000011	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	2.6
RSEM-R6W-EOP	8/26/2021 10:30	AER554	M	C163145	0.00054	<0.01	<0.0002	0.0516	19.4	0.0262	<0.0000019	0.0066	0.0055		3.45	0.00546	2.2	<0.00002	73.2	0.4	74.6	0.000011	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001	1.9
RSEM-R6W-EOP	8/27/2021 10:25	AER547	M	C163144	0.00052	<0.01	<0.0002	0.0552	19.9	0.0174	<0.0000019	0.0058	0.0051		3.25	0.00519	2.09	<0.00002	70.8	0.391	87.7	0.000013	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	1.8
RSEM-R6W-EOP	8/28/2021 11:10	AEV124	M	C163811	<0.0005	<0.01	<0.0002	0.0564	20.1	0.0107	<0.0000019	0.005	0.0041		2.83	0.00465	1.87	<0.00002	71.5	0.334	73.1	0.000012	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	1.7
RSEM-R6W-EOP	8/29/2021 10:05	AEV011	M	C163786	<0.0005	<0.01	<0.0002	0.0556	19.5	0.0017	<0.0000019	0.0035	0.0031		2.40	0.00366	1.82	<0.00002	66.3	0.294	72.0	0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001	1.9
RSEM-R6W-EOP	8/30/2021 10:15	AEX829	M	C164176	<0.0005	<0.01	<0.0002	0.0593	20.0	0.007	<0.0000019	0.0042	0.0031		2.44	0.00388	1.8	<0.00002	68.7	0.316	72.5	0.000011	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	2.0
RSEM-R6W-EOP	8/31/2021 16:45	AFA832	M	C164798	<0.0005	<0.01	<0.0002	0.0611	20.6	0.0082	<0.0000019	0.004	0.0032		2.47	0.004	1.85	<0.00002	70.5	0.324	80.4	0.000011	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	2.3
RSEM-R6W-EOP	9/1/2021 15:50	AFC995	M	C165103	<0.0005	<0.01	<0.0002	0.0587	21.9	0.0071	<0.0000019	0.0042	0.004		2.51	0.004	1.87	<0.00002	72.1	0.376	70.6	0.000011	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	2.4
RSEM-R6W-EOP	9/2/2021 11:20	AFF607	M	C165563	<0.0005	<0.01	<0.0002	0.0566	22.8	0.0096	<0.0000019	0.0042	0.0046		2.60	0.00409	1.79	<0.00002	70.4	0.402	70.2	0.000011	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	1.9
RSEM-R6W-EOP	9/3/2021 11:25	AFF869	M	C165588	0.0005	<0.01	<0.0002	0.0582	27.0	0.0072	<0.0000019	0.0045	0.0051		3.25	0.00437	1.85	<0.00002	75.4	0.44	101	0.000011	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001	2.2
RSEM-R6W-EOP	9/4/2021 16:20	AFH289	M	C165785	0.00054	<0.01	<0.0002	0.0536	26.7	0.0047	<0.0000019	0.0044	0.005		3.21	0.00313	2.12	<0.00002	74.1	0.447	97.1	0.000014	<0.005	<0.005	0.00223	<0.005	<0.005	<0.0001	1.8
RSEM-R6W-EOP	9/5/2021 14:10	AFI824	M	C166081	<0.0005	<0.01	<0.0002	0.0555	24.1	0.0064	<0.0000019	0.004	0.0042		2.82	0.00392	1.8	<0.00002	67.8	0.421	67.8	0.000013	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001	2.1
RSEM-R6W-EOP	9/6/2021 12:25	AFI719	M	C166063	<0.0005	<0.01	<0.0002	0.0515	23.8	0.0031	<0.0000019	0.003	0.0034		2.84	0.00317	1.72	<0.00002	65.9	0.368	64.3	0.000011	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001	2.2
RSEM-R6W-EOP	9/7/2021 12:00	AFL345	M	C166557	<0.0005	<0.005	<0.0002	0.0499	22.3	0.0024	<0.0000019	0.004	0.0029		2.73	0.00299	1.71	<0.00002	63.2	0.331	56.1	0.000011	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	1.5
RSEM-R6W-EOP	9/8/2021 11:20	AFO057	M	C167059	<0.0005	<0.01	<0.0002	0.05	22.2	0.0012	<0.0000019	0.0039	0.0027		2.86	0.00239	2.09	<0.00002	65.3	0.359	73.0	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	1.7
RSEM-R6W-EOP	9/9/2021 11:40	AFQ845	M	C167445	<0.0005	<0.01	<0.0002	0.0491	20.9	0.0023	<0.0000019	0.004	0.0023		2.67	0.00336	2	<0.00002	64.9	0.303	74.2	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	1.5
RSEM-R6W-EOP	9/10/2021 10:20	AFQ881	M	C167449	<0.0005	<0.01	<0.0002	0.0495	20.7	0.0022	<0.0000019	0.004	0.0021		2.64	0.00353	1.94	<0.00002	65.3	0.291	76.3	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	1.5
RSEM-R6W-EOP	9/11/2021 12:20	AFV353	M	C168029	<0.0005	<0.01	<0.0002	0.0481	19.8	0.0023	<0.0000019	0.0038	0.0019		2.70	0.00326	2.11	<0.00002	63.4	0.309	64.9	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	1.2
RSEM-R6W-EOP	9/12/2021 13:20	AFV417	M	C168037	<0.0005	<0.01	<0.0002	0.0505	20.4	0.0031	<0.0000019	0.004	0.002		2.79	0.00285	2.03	<0.00002	70.4	0.31	66.4	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	1.5
RSEM-R6W-EOP	9/13/2021 5:20	AFV244	M	C168020	<0.0005	<0.01	<0.0002	0.0563	22.6	0.0022	<0.0000019	0.0049	0.002		2.97	0.00291	2	<0.00002	81.6	0.317	84.0	<0.00001	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001	1.5
RSEM-R6W-EOP	9/14/2021 16:40	AGB016	M	C169017	0.00056	<0.005	<0.0002	0.0519	20.9	0.0023	<0.0000019	0.0045	0.0017		2.91	0.0036	2	<0.00002	80.5	0.299	77.5	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001	1.3
RSEM-R6W-EOP	9/14/2021 16:50	AGB017	D	C169017	0.00053	<0.005	<0.0002	0.0519	21.3	0.0024	<0.0000019	0.0046	0.0017		2.90	0.00354	2	<0.00002	81.3	0.309	77.2	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	1.7
RSEM-R6W-EOP	9/15/2021 10:30	AGD165	M	C169361	0.0005	<0.01	<0.0002	0.0546	20.3	0.0028	<0.0000019	0.005	0.0018		2.83	0.00308	1.99	<0.00002	85.4	0.255	70.3	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	3.1
RSEM-R6W-EOP	9/16/2021 12:55	AGG329	M	C169805	0.00056	<0.01	<0.0002	0.0572	23.1	0.0035	<0.0000019	0.0051	0.0021		3.12	0.00355	2.04	<0.00002	94.6	0.282	76.8	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	4.1
RSEM-R6W-EOP	9/17/2021 10:50	AGG308	M	C169799	0.00053	<0.01	<0.0002	0.0555	22.3	0.0036	<0.0000019	0.0051	0.0021		3.06	0.0033	2.07	<0.00002	91.6	0.271	72.6	<0.00001	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001	3.9
RSEM-R6W-EOP	9/18/2021 12:20	AGJ634	M	C170329	0.00054	<0.01	<0.0002	0.0539	22.6	0.0031	<0.0000019	0.0051	0.0022		3.02	0.0029	2.29	<0.00002	90.9	0.287	73.4	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	3.2
RSEM-R6W-EOP	9/19/2021 11:20	AGJ665	M	C170331	<0.0005	<0.01	<0.0002	0.0524	20.7	0.0057	<0.0000019	0.0048	0.0021		2.80	0.00277	2.51	<0.00002	81.7	0.27	68.3	<0.00001	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	4.5
RSEM-R6W-EOP	9/20/2021 10:40	AGM221	M	C170680	0.00053	<0.01	<0.0002	0.0485	20.9	0.0052	<0.0000019	0.0047	0.0024		2.70	0.00308	2.47	<0.00002	80.1	0.258	65.9	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	3.2
RSEM-R6W-EOP	9/21/2021 11:20	AGO664	M	C171134	0.00052	<0.01	<0.0002	0.0482	20.5	0.0047	<0.0000019	0.0045	0.0024		2.64	0.00265	2.53	<0.00002	75.7	0.266	63.4	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001	2.3
RSEM-R6W-EOP	9/22/2021 11:05	AGR065	M	C171568	0.00083	<0.01	<0.0002	0.0446	19.7	0.0035	<0.0000019	0.0042	0.0036		2.52	0.0023	2.47	<0.00002	71.2	0.257	58.9	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	2.8
RSEM-R6W-EOP	9/23/2021 16:35	AGT565	M	C171954	<0.0005	<0.01	<0.0002	0.0457	19.3	<0.001	<0.0000019	0.0039	0.0022		2.32	0.00145	2.43	<0.00002	68.9	0.225	56.1	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	3.2
RSEM-R6W-EOP	9/24/2021 12:55	AGV850	M	C172263	<0.0005	<0.01	<0.0002	0.0417	19.4	0.001	<0.0000019	0.004	0.0021		2.32	0.00138	2.97	<0.00002	67.8	0.239	54.5	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	2.7
RSEM-R6W-EOP	9/25/2021 15:55	AGX496	M	C172580	0.0006	<0.01	<0.0002	0.0418	21.1	<0.001	<0.0000019	0.0038	0.0024		2.46	0.00256	2.37	<0.00002	72.6	0.237	78.0	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	3.8
RSEM-R6W-EOP	9/26/2021 15:30	AGX366	M	C172552	0.00062	<0.01	<0.0002	0.0416	21.2	<0.001	<0.0000019	0.0037	0.0023		2.44	0.00257	2.31	<0.00002	72.6	0.237	73.8	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	2.7
RSEM-R6W-EOP	9/27/2021 11:40	AGZ868	M	C172958	0.00074	<0.01	<0.0002	0.0444	21.1	<0.001	<0.0000019	0.0041	0.0027		2.46	0.00147	2.45	<0.00002	73.4	0.244	59.2	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	2.7
RSEM-R6W-EOP	9/28/2021 11:30	AHC016	M	C173431	0.00075	<0.01	<0.0002	0.0452	21.7	<0.001	<0.0000019	0.0049	0.0026		2.47	0.00159	2.41	<0.00002	74.5	0.25	58.1	<0.00001	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	3.1
RSEM-R6W-EOP	9/29/2021 12:30	AHF733	M	C174181	0.00066	<0.01	<0.0002	0.0472	15.8	<0.001	<0.0000019	0.0041	0.0024		2.50	0.00154	2.5	<0.00002	77.1	0.243	36.4	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	3.6
RSEM-R6W-EOP	9/30/2021 11:10	AHF783	M	C174188	0.00067	<0.01	<0.0002	0.0503	21.3	<0.001	<0.0000019	0.0041	0.0024		2.53	0.00158	2.57	<0.00002	78.0	0.244	61.3	<0.00001	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001	3.9
RSEM-R6W-EOP	10/1/2021 12:30	AHF786	M	C174189	0.00074	<0.01	<0.0002	0.0527	21.6	<0.001	<0.0000019	0.0042	0.0025		2.59	0.0014	2.57	<0.00002	81.3	0.251	62.3	<0.00001	<0.005	<0.005	0.00192	<0.005	<0.005	<0.0001	3.9
RSEM-R6W-EOP	10/2/2021 11:00	AHI563	M	C174687	0.00072	<0.01	<0.0002	0.0538	20.9	<0.001	<0.0000019	0.004	0.0025		2.63	0.00138	2.45	<0.00002	82.5	0.237	61.9	<0.00001	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001	3.9
RSEM-R6W-EOP	10/3/2021 12:30	AHI567	M	C174689	0.00072	<0.01	<0.0002	0.0429	22.0	0.001	<0.0000019	0.0041	0.0025		2.72	0.00136	2.55	<0.00002	85.9	0.252	62.4	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	3.9
RSEM-R6W-EOP	10/4/2021 8:30	AHI554	M	C174685	0.00073	<0.01	<0.0002	0.0554	22.2	0.0012	<0.0000019	0.004	0.0026		2.76	0.00158	2.45	<0.00002	86.2	0.252	61.1	<0.00001	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001	3.5
RSEM-R6W-EOP	10/5/2021 14:40	AHO716	M	C175650	<0.0025	<0.05	<0.001	0.051	19.1	<0.005	0.0000028	<0.005	<0.005		2.22	0.00131	2.21	<0.0001	72.7	0.17	44	<0.00005	<0.025	<0.025	0.00181	<0.025	<0.025	<0.0005	2.6
RSEM-R6W-EOP	10/6/2021 11:30	AHR785	M	C176098	0.00058	<0.01	<0.0002	0.0418	15.0	<0.001	<0.0000019	0.0034	0.0019		2.34	0.0017	1.9	<0.00002	63.8	0.179	36.2	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	2.8
RSEM-R6W-EOP	10/7/2021 17:30	AHU812	M	C176559	0.00058	<0.01	<0.0002	0.0412	14.8	<0.001	<0.0000019	0.0036	0.0019		2.41	0.00167	1.95	<0.00002	64.8	0.181	43.9	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	2.1
RSEM-R6W-EOP	10/8/2021 10:55	AHU798	M	C176557	0.00058	<0.01	<0.0002	0.0406	14.4	<0.001	<0.0000019	0.0036	0.0018		2.36	0.00164	1.92	<0.00002	63.9	0.176	34.0	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	2.0
RSEM-R6W-EOP	10/9/2021 12:00	AHX007	M	C176838	0.00069	<0.01	<0.0002	0.0453	15.9	<0.001	<0.0000019	0.0048	0.0018		2.57	0.00102	2.55	<0.00002	68.3	0.202	47.7	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	1.6
RSEM-R6W-EOP	10/10/2021 12:50	AHX001	M	C176837	0.00059	<0.01	<0.0002	0.045	15.6	0.0022	<0.0000019	0.004	0.0022		2.26	0.00098	2.61	<0.00002	68.5	0.205	46.4	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	1.4
RSEM-R6W-EOP	10/11/2021 14:40	AHY662	M	C177084	0.00059	<0.01	<0.0002	0.0398	13.7	0.0022	<0.0000019	0.0038	0.0021		2.29	0.00156	1.89	<0.00002	63.6	0.175	35.9	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	2.0
RSEM-R6W-EOP	10/12/2021 16:00	AIB244	M	C177600	0.00056	<0.01	<0.0002	0.0385	13.1	0.0025	<0.0000019	0.0039	0.0018		2.24	0.00153	1.93	<0.00002	61.5	0.166	31.9	<0.00001	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	2.4
RSEM-R6W-EOP	10/13/2021 11:50	AIE376	M	C178189	0.00059	<0.01	<0.0002	0.0394	13.3	0.0024	<0.0000019	0.0041	0.0015		2.54	0.00116	2.5	<0.00002	63.6	0.173	39.7	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	2.6
RSEM-R6W-EOP	10/14/2021 10:50	AIG809	M	C178651	0.00053	<0.01	<0.0002	0.0489	13.8	0.001	<0.0000019	0.0039	0.0013		2.25	0.00138	1.94	<0.00002	65.5	0.154	20.1	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	2.9
RSEM-R6W-EOP	10/15/2021 11:20	AII742	M	C178993	0.0006	<0.01	<0.0002	0.0486	13.9	0.001	<0.0000019	0.0051	0.0014		2.58	0.00095	3.07	<0.00002	72.5	0.18	44.6	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	2.7
RSEM-R6W-EOP	10/16/2021 14:30	AIL331	M	C179338	0.00052	<0.01	<0.0002	0.0504	13.2	0.0025	<0.0000019	0.0045	0.0013		2.49	0.00122	2.26	<0.00002	70.9	0.149	25.3	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	3.5
RSEM-R6W-EOP	10/17/2021 14:30	AIL270	M	C179325	0.00058	<0.01	<0.0002	0.0538	13.8	0.0023	<0.0000019	0.0049	0.0012		2.75	0.00101	2.38	<0.00002	73.7	0.153	45.4	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001	3.1
RSEM-R6W-EOP	10/18/2021 10:05	AIL343	M	C179344	0.00054	<0.01	<0.0002	0.0502	13.1	0.0032	<0.0000019	0.0046	0.0012		2.54	0.00121	2.38	<0.00002	72.1	0.147	20.8	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	2.5
RSEM-R6W-EOP	10/19/2021 12:30	AIR752	M	C180384	0.00054	0.013	<0.0002	0.0524	13.8	0.0042	<0.0000019	0.0047	0.0012		2.69	0.00106	2.49	<0.00002	87.7	0.152	34.6	0.000011	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	2.7
RSEM-R6W-EOP	10/20/2021 12:30	AIT535	M	C180689	0.00052	<0.01	<0.0002	0.0498	13.4	0.0015	<0.0000019	0.0054	0.0012		2.71	0.00095	3.31	<0.00002	73.5	0.174	44.2	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	2.9
RSEM-R6W-EOP	10/21/2021 11:30	AIW013	M	C181069	0.00052	<0.01	<0.0002	0.05	13.1	0.0022	<0.0000019	0.0054	0.0011		2.75	0.00094	3.44	<0.00002	73.7	0.169	44.4	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	2.5
RSEM-R6W-EOP	10/22/2021 10:30	AIW018	M	C181072	0.00053	<0.01	<0.0002	0.0504	13.2	0.0026	<0.0000019	0.0063	0.0011		2.75	0.00092	3.55	<0.00002	74.7	0.165	43.6	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	3.1
RSEM-R6W-EOP	10/23/2021 11:00	AIZ372	M	C181550	0.00054	<0.01	<0.0002	0.045	12.0	0.0041	<0.0000019	0.0051	0.0011		2.72	0.00096	3.9	<0.00002	69.8	0.15	40.6	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001	4.9
RSEM-R6W-EOP	10/24/2021 11:30	AIZ352	M	C181544	0.00058	<0.01	<0.0002	0.0399	11.3	0.0054	<0.0000019	0.0049	0.001		2.48	0.0009	4.27	<0.00002	62.2	0.136	36.0	<0.00001	<0.005	<0.005	0.00098	<0.005	<0.005	<0.0001	2.8
RSEM-R6W-EOP	10/25/2021 6:00	AIZ359	M	C181547	0.00054	<0.01	<0.0002	0.038	11.3	0.006	<0.0000019	0.0048	<0.001		2.51	0.00088	4.29	<0.00002	59.1	0.134	35.1	<0.00001	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	3.3

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-EOP	10/26/2021 10:40	AJF138	M	C182473	0.0005	<0.01	<0.0002	0.0341	11.1	0.0065	<0.0000019	0.0048	<0.001		2.38	0.00089	4.61	<0.00002	56.7	0.138	35.2	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001	3.4
RSEM-R6W-EOP	10/27/2021 14:40	AJH725	M	C182990	0.00053	<0.01	<0.0002	0.0335	11.6	0.0047	0.0000026	0.0049	0.001		2.45	0.00093	4.63	<0.00002	55.0	0.144	34.7	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	4.0
RSEM-R6W-EOP	10/28/2021 15:50	AJL909	M	C183658	<0.0005	<0.01	<0.0002	0.0324	11.0	0.0042	<0.0000019	0.0046	<0.001		2.22	0.0009	4.3	<0.00002	47.3	0.129	30.6	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	2.9
RSEM-R6W-EOP	10/29/2021 11:20	AJL061	M	C183557	<0.0005	<0.01	<0.0002	0.03	11.2	0.0045	<0.0000019	0.0043	<0.001		2.19	0.00094	4.36	<0.00002	43.0	0.129	30.1	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001	2.9
RSEM-R6W-EOP	10/30/2021 12:10	AJO164	M	C184013	<0.0005	<0.01	<0.0002	0.0289	12.2	0.0043	<0.0000019	0.0044	<0.001		2.25	0.00096	3.98	<0.00002	45.0	0.137	30.2	<0.00001	<0.005	<0.005	0.00129	<0.005	0.0052	<0.0001	3.1
RSEM-R6W-EOP	10/31/2021 11:50	AJO161	M	C184012	<0.0005	<0.01	<0.0002	0.0286	12.6	0.0044	<0.0000019	0.0043	<0.001		2.35	0.00105	4.07	<0.00002	45.0	0.134	29.1	<0.00001	<0.005	<0.005	0.00129	<0.005	0.0053	<0.0001	3.7
RSEM-R6W-EOP	11/1/2021 14:30	AJS228	M	C184600	0.00063	<0.01	<0.0002	0.0289	11.6	0.0045	<0.0000019	0.0041	<0.001		2.39	0.00136	3.86	<0.00002	40.4	0.126	37.1	<0.00001	<0.005	<0.005	0.00117	<0.005	0.0051	<0.0001	3.0
RSEM-R6W-EOP	11/2/2021 14:55	AJU790	M	C184881	0.00051	<0.01	<0.0002	0.0268	13.1	0.0048	<0.0000019	0.004	<0.001		2.41	0.00158	3.87	<0.00002	42.1	0.122	31.7	<0.00001	<0.005	<0.005	0.00126	<0.005	0.0055	<0.0001	3.5
RSEM-R6W-EOP	11/3/2021 12:30	AJX284	M	C185315	0.00052	<0.01	<0.0002	0.0265	12.7	0.004	<0.0000019	0.0038	<0.001		2.27	0.00166	3.64	<0.00002	38.0	0.133	19.8	<0.00001	<0.005	<0.005	0.00135	<0.005	0.0057	<0.0001	3.6
RSEM-R6W-EOP	11/4/2021 11:05	AKA062	M	C185756	0.00053	<0.01	<0.0002	0.0246	12.2	0.0048	<0.0000019	0.0035	<0.001		2.25	0.00165	3.52	<0.00002	33.8	0.133	18.3	<0.00001	<0.005	<0.005	0.00134	<0.005	0.0066	<0.0001	3.8
RSEM-R6W-EOP	11/5/2021 11:25	AKA066	M	C185757	0.00051	<0.01	<0.0002	0.0226	12.4	0.0059	<0.0000019	0.0035	<0.001		2.29	0.00164	3.45	<0.00002	32.2	0.136	19.4	<0.00001	<0.005	<0.005	0.00139	<0.005	0.0084	<0.0001	3.7
RSEM-R6W-EOP	11/6/2021 11:05	AKD993	M	C186250	0.00056	<0.01	<0.0002	0.0243	12.8	0.0062	<0.0000019	0.0036	<0.001		2.21	0.00163	3.44	<0.00002	35.0	0.136	18.5	<0.00001	<0.005	<0.005	0.00131	<0.005	0.0084	<0.0001	3.1
RSEM-R6W-EOP	11/7/2021 10:55	AKE000	M	C186252	0.0006	<0.01	<0.0002	0.0262	12.8	0.0059	<0.0000019	0.0037	<0.001		2.24	0.00169	3.43	<0.00002	37.3	0.133	19.8	<0.00001	<0.005	<0.005	0.00129	<0.005	0.009	<0.0001	3.1
RSEM-R6W-EOP	11/8/2021 10:40	AKD975	M	C186247	0.00055	<0.01	<0.0002	0.0298	12.9	0.0065	<0.0000019	0.004	<0.001		2.39	0.00172	3.39	<0.00002	41.3	0.137	22.5	<0.00001	<0.005	<0.005	0.00129	<0.005	0.0093	<0.0001	3.1
RSEM-R6W-EOP	11/9/2021 12:00	AKJ863	M	C187047	0.00061	<0.01	<0.0002	0.0306	12.8	0.0063	<0.0000019	0.0043	0.001		2.45	0.00173	3.43	<0.00002	44.9	0.133	24.6	<0.00001	<0.005	<0.005	0.00139	<0.005	0.009	<0.0001	3.1
RSEM-R6W-EOP	11/10/2021 12:30	AKN275	M	C187468	0.0006	<0.01	<0.0002	0.033	12.3	0.0065	<0.0000019	0.0047	0.0012		2.60	0.00139	3.03	<0.00002	51.8	0.135	25.9	<0.00001	<0.005	<0.005	0.00136	<0.005	0.0098	<0.0001	4.1
RSEM-R6W-EOP	11/11/2021 11:00	AKN228	M	C187460	0.00063	<0.01	<0.0002	0.0356	12.4	0.006	<0.0000019	0.0047	0.0012		2.71	0.00138	3.01	<0.00002	54.2	0.136	23.3	<0.00001	<0.005	<0.005	0.00136	<0.005	0.0095	<0.0001	3.5
RSEM-R6W-EOP	11/12/2021 11:00	AKN247	M	C187463	0.00065	<0.01	<0.0002	0.0386	12.6	0.0068	<0.0000019	0.005	0.0013		2.73	0.00136	3.03	<0.00002	57.3	0.135	27.8	<0.00001	<0.005	<0.005	0.00142	<0.005	0.0102	<0.0001	4.9
RSEM-R6W-EOP	11/13/2021 11:00	AKS760	M	C188237	0.0007	<0.01	<0.0002	0.039	12.1	0.0067	<0.0000019	0.005	0.0014		2.78	0.00142	3.49	<0.00002	61.8	0.125	33.7	<0.00001	<0.005	<0.005	0.00141	<0.005	0.0108	<0.0001	2.8
RSEM-R6W-EOP	11/14/2021 11:00	AKS791	M	C188243	0.0007	<0.01	<0.0002	0.0382	12.0	0.0063	<0.0000019	0.0049	0.0014		2.75	0.00138	3.53	<0.00002	60.7	0.125	31.8	<0.00001	<0.005	<0.005	0.0014	<0.005	0.0109	<0.0001	2.5
RSEM-R6W-EOP	11/15/2021 6:30	AKS805	M	C188248	0.00076	<0.01	<0.0002	0.0401	12.2	0.0069	<0.0000019	0.0053	0.0016		2.87	0.00136	3.48	<0.00002	65.3	0.127	29.3	<0.00001	<0.005	<0.005	0.00145	<0.005	0.0122	<0.0001	2.5
RSEM-R6W-EOP	11/16/2021 15:00	AKV420	M	C188704	0.00081	<0.01	<0.0002	0.0461	13.0	0.0074	<0.0000019	0.0055	0.0017		3.18	0.00118	3.43	<0.00002	73.0	0.125	33.3	<0.00001	<0.005	<0.005	0.00151	<0.005	0.0135	<0.0001	3.0
RSEM-R6W-EOP	11/17/2021 11:15	AKY310	M	C189131	0.00093	<0.01	<0.0002	0.0523	15.2	0.0083	<0.0000019	0.0067	0.0023		3.57	0.00133	3.68	<0.00002	89.7	0.151	53.1	<0.00001	<0.005	<0.005	0.00158	<0.005	0.0178	<0.0001	5.1
RSEM-R6W-EOP	11/18/2021 10:50	AKZ642	M	C189345	0.00101	<0.01	<0.0002	0.0518	15.7	0.0074	<0.0000019	0.0072	0.0025		3.77	0.00147	3.75	<0.00002	98.0	0.151	56.5	<0.00001	<0.005	<0.005	0.00165	<0.005	0.0187	<0.0001	6.2
RSEM-R6W-EOP	11/19/2021 10:55	AKZ639	M	C189344	0.00101	<0.01	<0.0002	0.0551	15.0	0.0071	<0.0000019	0.0074	0.0025		3.71	0.00138	3.78	<0.00002	95.4	0.152	55.6	<0.00001	<0.005	<0.005	0.00165	<0.005	0.0187	<0.0001	5.8
RSEM-R6W-EOP	11/20/2021 10:30	ALR016	M	C192879	0.00293	<0.01	0.00031	0.0875	15.1	0.0088	<0.0000019	0.0101	0.0036		4.80	0.00152	4.72	<0.00002	99.9	0.186	50.4	<0.00001	<0.005	<0.005	0.00217	<0.005	0.0252	<0.0001	6.3
RSEM-R6W-EOP	11/21/2021 10:10	ALT348	M	C193212	0.0013	<0.01	<0.0002	0.0891	15.6	0.0095	<0.0000019	0.0107	0.0036		4.97	0.00151	4.81	<0.00002	106	0.195	48.9	0.00001	<0.005	<0.005	0.00232	<0.005	0.0262	<0.0001	6.7
RSEM-R6W-EOP	11/22/2021 10:55	ALQ581	M	C192775	0.0011	<0.01	<0.0002	0.0717	11.9	0.0073	<0.0000019	0.0087	0.0029		3.88	0.00127	3.73	<0.00002	83.8	0.154	39.5	<0.00001	<0.005	<0.005	0.00181	<0.005	0.0237	<0.0001	7.6
RSEM-R6W-EOP	11/23/2021 10:15	ALN437	M	C192217	0.00138	<0.01	<0.0002	0.0927	18.9	0.0103	<0.0000019	0.011	0.0038		5.01	0.00164	5.13	<0.00002	144	0.19	59.0	0.000012	<0.005	<0.005	0.00249	<0.005	0.0313	<0.0001	7.8
RSEM-R6W-EOP	11/24/2021 10:45	ALQ703	M	C192806	0.00117	<0.01	<0.0002	0.0734	11.6	0.0076	<0.0000019	0.0088	0.0028		3.79	0.00123	3.72	<0.00002	84.6	0.154	38.0	<0.00001	<0.005	<0.005	0.0018	<0.005	0.0244	<0.0001	9.5
RSEM-R6W-EOP	11/25/2021	FJ2101334-002	M	FJ2101334	0.00119	<0.010	<0.000050	0.0639	14.7	0.00794	<0.0000050	0.00810	0.0028	<0.050	3.60	0.00117	4.17	<0.000010	110	0.154	57.6	<0.000010	0.00021	<0.00030	0.00175	0.00196	0.0267	<0.00020	6.91
RSEM-R6W-EOP	11/26/2021 10:20	FJ2101337-003	M	FJ2101337	0.00116	<0.010	<0.000050	0.0596	14.2	0.00758	<0.0000050	0.00750	0.0027	<0.050	3.48	0.00120	4.26	<0.000010	108	0.146	54.4	<0.000010	0.00023	<0.00030	0.00173	0.00185	0.0235	<0.00020	4.79
RSEM-R6W-EOP	11/27/2021 11:00	FJ2101340-002	M	FJ2101340	0.00121	<0.010	<0.000050	0.0611	14.2	0.00843	<0.0000050	0.00809	0.0028	<0.050	3.66	0.00111	4.44	<0.000010	106	0.141	49.2	<0.000010	0.00022	<0.00030	0.00170	0.00194	0.0251	<0.00020	5.13
RSEM-R6W-EOP	11/28/2021 10:20	FJ2101338-003	M	FJ2101338	0.00119	<0.010	<0.000050	0.0622	14.2	0.00841	<0.0000050	0.00753	0.0028	<0.050	3.59	0.00111	4.38	<0.000010	107	0.141	47.9	<0.000010	0.00022	<0.00030	0.00170	0.00197	0.0251	<0.00020	5.43
RSEM-R6W-EOP	11/29/2021 9:55	FJ2101339-002	M	FJ2101339	0.00114	<0.010	<0.000050	0.0624	14.5	0.00861	<0.0000050	0.00757	0.0029	<0.050	3.71	0.00113	4.42	<0.000010	107	0.146	49.5	<0.000010	0.00023	<0.00030	0.00171	0.00192	0.0254	<0.00020	4.30
RSEM-R6W-EOP	11/30/2021 13:00	FJ2101361-002	M	FJ2101361	0.00133	<0.010	<0.000050	0.0636	13.6	0.00733	<0.0000050	0.00784	0.0027	<0.050	3.63	0.00111	4.40	<0.000010	99.7	0.150	61.3	<0.000010	0.00022	<0.00030	0.00170	0.00180	0.0245	<0.00020	4.76
RSEM-R6W-EOP	12/1/2021 13:00	FJ2101362-002	M	FJ2101362	0.00125	0.018	<0.000050	0.0667	14.0	0.0110	<0.0000050	0.00777	0.0028	<0.050	3.74	0.00111	4.33	<0.000010	107	0.151	55.1	<0.000010	0.00022	0.00062	0.00190	0.00198	0.0254	<0.00020	6.85
RSEM-R6W-EOP	12/2/2021 12:30	FJ2101375-002	M	FJ2101375	0.00105	<0.010	<0.000050	0.0674	14.5	0.00787	<0.0000050	0.00758	0.0027	<0.050	3.78	0.00123	4.38	<0.000010	112	0.159	56.6	<0.000010	0.00024	<0.00030	0.00178	0.00180	0.0216	<0.00020	4.87
RSEM-R6W-EOP	12/3/2021 12:00	FJ2101374-002	M	FJ2101374	0.00108	<0.010	<0.000050	0.0665	14.8	0.00874	<0.0000050	0.00802	0.00270	<0.050	3.90	0.00112	4.51	<0.000020	114	0.166	59.8	<0.000010	0.00022	<0.00030	0.00184	0.00175	0.0214	<0.00020	4.69
RSEM-R6W-EOP	12/4/2021 12:00	FJ2101385-002	M	FJ2101385	0.00119	0.012	<0.000050	0.0650	14.8	0.0135	<0.0000050	0.00796	0.0028	<0.050	3.74	0.00122	4.63	<0.000010	111	0.164	58.2	<0.000010	0.00024	0.00070	0.00181	0.00184	0.0265	<0.00020	4.73
RSEM-R6W-EOP	12/5/2021 12:00	FJ2101386-002	M	FJ2101386	0.00116	<0.010	<0.000050	0.0671	14.9	0.0146	<0.0000050	0.00804	0.0026	<0.050	3.81	0.00123	4.63	<0.000010	116	0.165	59.6	<0.000010	0.00024	<0.00030	0.00176	0.00182	0.0283	<0.00020	4.14
RSEM-R6W-EOP	12/6/2021 6:00	FJ2101387-001	M	FJ2101387	0.00110	<0.010	<0.000050	0.0624	14.7	0.0173	<0.0000050	0.00791	0.0028	<0.050	3.73	0.00126	4.39	<0.000010	109	0.163	59.6	<0.000010	0.00020	<0.00030	0.00169	0.00166	0.0216	<0.00020	5.08
RSEM-R6W-EOP	12/7/2021 10:30	FJ2101420-001	M	FJ2101420	0.00161	0.010	<0.000050	0.0621	15.3	0.0238	<0.0000050	0.00822	0.0031	<0.050	3.68	0.00134	4.54	<0.000010	104	0.172	57.8	<0.000010	0.00022	<0.00030	0.00184	0.00163	0.0229	<0.00020	5.99
RSEM-R6W-EOP	12/8/2021 11:20	FJ2101419-002	M	FJ2101419	0.00108	0.010	<0.000050	0.0636	14.3	0.0217	<0.0000050	0.00788	0.0029	<0.050	3.90	0.00120	4.47	<0.000010	109	0.166	62.5	<0.000010	0.00022	<0.00030	0.00172	0.00157	0.0213	<0.00020	4.32
RSEM-R6W-EOP	12/9/2021 10:25	FJ2101442-003	M	FJ2101442	0.00102	0.011	<0.000050	0.0658	14.7	0.0314	<0.0000050	0.00792	0.003	<0.050	3.89	0.00114	4.32	<0.000010	108	0.167	56.9	<0.000010	0.00022	<0.00030	0.00180	0.00150	0.0236	<0.00020	4.03
RSEM-R6W-EOP	12/10/2021 10:55	FJ2101436-002	M	FJ2101436	0.00102	0.014	<0.000050	0.0642	14.9	0.0377	<0.0000050	0.00773	0.0031	<0.050	3.88	0.00118	4.42	<0.000010	109	0.167	58.0	<0.000010	0.00022	<0.00030	0.00183	0.00152	0.0234	<0.00020	4.15
RSEM-R6W-EOP	12/11/2021 14:00	FJ2101439-003	M	FJ2101439	0.00129	0.151	0.000091	0.0602	14.4	0.0464	<0.0000050	0.00761	0.00340	<0.050	3.69	0.00119	4.84	<0.000010	111	0.176	64.8	<0.000010	0.00024	0.00432	0.00188	0.00203	0.0288	<0.00020	4.43
RSEM-R6W-EOP	12/12/2021 11:45	FJ2101434-002	M	FJ2101434	0.00109	0.018	<0.000050	0.0715	16.5	0.0473	<0.0000050	0.00810	0.0036	<0.050	3.87	0.00126	4.69	<0.000010	119	0.184	61.4	<0.000010	0.00022	<0.00030	0.00176	0.00144	0.0318	<0.00020	3.72
RSEM-R6W-EOP	12/13/2021 11:20	FJ2101455-001	M	FJ2101455	0.00104	0.016	<0.000050	0.0723	16.1	0.0415	<0.0000050	0.00789	0.00360	<0.050	3.97	0.00125	4.98	<0.000010	120	0.182	68.6	<0.000010	0.00024	<0.00030	0.00178	0.00142	0.0352	<0.00020	3.23
RSEM-R6W-EOP	12/17/2021 11:35	FJ2101490-001	M	FJ2101490	0.00108	0.015	<0.000050	0.0834	20.2	0.0520	<0.0000050	0.00918	0.0049	<0.050	4.22	0.00170	5.29	<0.000010	139	0.214	79.3	<0.000010	0.00030	<0.00030	0.00190	0.00152	0.0610	<0.00020	5.12
RSEM-R6W-EOP	12/18/2021 13:30	FJ2101495-001	M	FJ2101495	0.00115	0.018	<0.000050	0.0860	23.7	0.0448	<0.0000050	0.00977	0.0052	<0.050	4.59	0.00199	5.45	<0.000010	145	0.225	82.3	<0.000010	0.00037	<0.00030	0.00208	0.00175	0.0680	<0.00020	5.70
RSEM-R6W-EOP	12/19/2021 11:30	FJ2101494-001	M	FJ2101494	0.00120	0.011	<0.000050	0.0815	25.5	0.0385	<0.0000050	0.00990	0.0053	<0.050	4.95	0.00232	6.33	<0.000010	151	0.225	88.6	<0.000010	0.00042	<0.00030	0.00229	0.00213	0.0620	<0.00020	4.87
RSEM-R6W-EOP	12/19/2021 11:40	FJ2101494-002	D	FJ2101494	0.00111	0.011	<0.000050	0.0816	24.7	0.0379	<0.0000050	0.00993	0.0051	<0.050	4.76	0.00210	6.29	<0.000010	146	0.219	89.1	<0.000010	0.00040	<0.00030	0.00228	0.00203	0.0586	<0.00020	4.90
RSEM-R6W-EOP	12/20/2021 10:25	FJ2101496-001	M	FJ2101496	0.00116	<0.010	<0.000050	0.0797	27.3	0.0271	<0.0000050	0.00990	0.0042	<0.050	5.06	0.00245	6.80	<0.000010	144	0.214	87.4	<0.000010	0.00045	<0.00030	0.00249	0.00266	0.0526	<0.00020	5.11
RSEM-R6W-EOP	12/21/2021 11:00	FJ2101514-004	M	FJ2101514	0.00118	<0.010	<0.000050	0.0789	27.3	0.0298	<0.0000050	0.00944	0.0043	<0.050	4.71	0.00256	5.84	<0.000010	136	0.207	79.7	<0.000010	0.00040	<0.00030	0.00238	0.00240	0.0591	<0.00020	2.26
RSEM-R6W-EOP	12/22/2021 6:00	FJ2101508-002	M	FJ2101508	0.00140	0.102	0.000077	0.0735	26.6	0.0226	<0.0000050	0.00856	0.0036	<0.050	4.55	0.00240	6.47	<0.000010	125	0.185	69.0	<0.000010	0.00038	0.00228	0.00260	0.00282	0.0556	<0.00020	5.04
RSEM-R6W-EOP	12/23/2021 11:00	FJ2101512-001	M	FJ2101512	0.00124	0.014	<0.000050	0.0812	26.8	0.0244	<0.0000050	0.00962	0.0039	<0.050	4.89	0.00268	6.54	<0.000010	140	0.212	81.9	<0.000010	0.00044	<0.00060	0.00245	0.00259	0.0552	<0.00020	2.04
RSEM-R6W-EOP	12/24/2021 11:45	FJ2101513-001	M	FJ2101513	0.00125	<0.010	<0.000050	0.0819	29.4	0.0287	<0.0000050	0.00973	0.0042	<0.050	5.13	0.00306	6.49	<0.000010	141	0.221	82.9	<0.000010	0.00046	<0.00030	0.00252	0.00279	0.0607	<0.00020	2.57
RSEM-R6W-EOP	12/25/2021 11:00	FJ2101514-001	M	FJ2101514	0.00130	<0.010	<0.000050	0.0835	30.7	0.0273	<0.0000050	0.0101	0.0043	<0.050	5.30	0.00308	6.64	<0.000010	146	0.225	85.0	<0.000010	0.00048	<0.00030	0.00266	0.00278	0.0585	<0.00020	2.28
RSEM-R6W-EOP	12/26/2021 13:45	FJ2101514-002	M	FJ2101514	0.00135	<0.010	<0.000050	0.0804	31.2	0.0237	<0.0000050	0.00992	0.0039	<0.050	5.26	0.00310	6.64	<0.000010	140	0.218	80.4	<0.000010	0.00049	<0.00030	0.00269	0.00310	0.0554	<0.00020	2.42
RSEM-R6W-EOP	12/27/2021 10:45	FJ2101514-003	M	FJ2101514	0.00143	<0.010	<0.000050	0.0791	26.5	0.0226	<0.0000050	0.00985	0.0035	<0.050	5.04	0.00273	6.61	<0.000010	128	0.210	69.9	<0.000010	0.00049	<0.00030	0.00306	0.00326	0.0600	<0.00020	3.20
RSEM-R6W-EOP	12/28/2021 11:15	FJ2101525-001	M	FJ2101525	0.00114	0.011	<0.000050	0.0696	27.1	0.0271	<0.0000050	0.00947	0.0035	<0.050	4.66	0.00292	6.60	<0.000010	120	0.200	73.7	<0.000010	0.00049	0.00038	0.00288	0.00267	0.0619	<0.00020	4.05
RSEM-R6W-EOP	12/29/2021 11:20	FJ2101526-001	M	FJ2101526	0.00104	0.014	<0.000050	0.0694	23.9	0.0350	<0.0000050	0.00845	0.0032	<0.050	4.50	0.00226	6.22	<0.000010	113	0.182	65.3	<0.000010	0.00047	0.00098	0.00257	0.00254	0.0672	<0.00020	3.63
RSEM-R6W-EOP	12/31/2021 12:00	FJ2200025-001	M	FJ2200025	0.00112	<0.010	<0.000050	0.0680	24.9	0.0372	<0.0000050	0.00821	0.003	<0.050	4.52	0.00234	5.99	<0.000010	110	0.183	68.2	<0.000010	0.00045	<0.00030	0.00240	0.00258	0.0704	<0.00020	5.27
RSEM-R6-WP-C	12/29/2021 15:30	FJ2101526-003	M	FJ2101526	0.00175	0.014	<0.000050	0.0858	38.5	0.00391	<0.0000050	0.0123	0.0023	<0.050	7.14	0.00425	9.87	<0.000010	142	0.222	104	<0.000010	0.00107	0.00051	0.00406	0.00592	0.0893	0.00055	2.00
RSEM-R6-WP-E	12/29/2021 15:00	FJ2101526-002	M	FJ2101526	0.00112	0.015	<0.000050	0.0690	24.4	0.0349	<0.0000050	0.00831	0.0031	<0.050	4.61	0.00247	6.32	<0.000010	112	0.182	62.8	<0.000010	0.00049	0.00066	0.00261	0.00272	0.0663	<0.00020	3.84
RSEM-R6W-SP	2/5/2021 14:00	ZH1014	M	C107964	0.00207	<0.01	<0.0002	0.0655	34.2	0.0107	<0.0000019	0.0098	0.0059		4.26	0.00275	5.3	<0.00002	207	0.316	148	<0.00001	<0.005	<0.005	0.00296	0.0068	0.0171	<0.0001	2.6

Appendix 3-C: 2021 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Sample Class	Lab Report Id	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-SP	4/15/2021 17:20	ZQ1506	M	C124804	<0.0005	<0.01	<0.0002	0.0207	11.9	0.0302	<0.0000019	0.007	0.0023		1.76	0.00242	3.35	<0.00002	59.9	0.257	41.9	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	39
RSEM-R6W-SP	4/16/2021 11:00	ZQ1482	M	C124799	<0.0005	<0.01	<0.0002	0.0202	12.0	0.036	<0.0000019	0.0066	0.002		1.71	0.00248	3.27	<0.00002	59.0	0.253	41.5	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	20
RSEM-R6W-SP	12/14/2021 11:45	FJ2101469-001	M	FJ2101469	0.00117	0.017	<0.000050	0.0814	18.2	0.0374	<0.0000050	0.00899	0.0038	<0.050	4.34	0.00137	4.96	<0.000010	135	0.209	70.8	<0.000010	0.00023	<0.00030	0.00212	0.00150	0.0354	<0.00020	3.08
RSEM-R6W-SP	12/14/2021 11:55	FJ2101469-002	D	FJ2101469	0.00137	0.018	<0.000050	0.0795	17.7	0.0363	<0.0000050	0.00874	0.0037	<0.050	4.17	0.00142	5.06	<0.000010	134	0.205	71.2	<0.000010	0.00024	<0.00030	0.00211	0.00148	0.0382	<0.00020	3.22
RSEM-R6W-SP	12/15/2021 13:45	FJ2101472-001	M	FJ2101472	0.00182	0.121	0.000067	0.0904	21.4	0.0361	<0.0000050	0.00976	0.0046	<0.050	4.96	0.00149	6.27	<0.000010	154	0.228	79.4	<0.000010	0.00031	0.00325	0.00206	0.00215	0.0376	<0.00020	3.25
RSEM-R6W-SP	12/16/2021 10:25	FJ2101483-001	M	FJ2101483	0.00122	0.022	<0.000050	0.0846	19.4	0.0322	<0.0000050	0.00963	0.0042	<0.050	4.61	0.00164	5.86	<0.000010	139	0.206	72.4	<0.000010	0.00027	<0.00030	0.00224	0.00154	0.0373	<0.00020	2.64
SeptimusBeaverPond	10/15/2021 14:25	AII746	M	C178993	<0.0005	0.055	<0.0002	0.0053	36.0	0.0689	<0.0000019	<0.001	0.0011		7.63	0.00014	0.179	<0.00002	5.13	0.646	31.6	<0.00001	<0.005	<0.005	0.00035	<0.005	<0.005	<0.0001	9.3
SeptimusBeaverPond	10/15/2021 14:35	AII747	M	C178993	<0.0005	0.06	<0.0002	0.0053	35.6	0.0243	<0.0000019	<0.001	0.0012		8.31	0.00012	0.224	<0.00002	5.04	0.631	30.6	<0.00001	<0.005	<0.005	0.00027	<0.005	<0.005	<0.0001	4.4
SeptimusBeaverPond	10/15/2021 14:45	AII748	M	C178993	<0.0005	0.056	<0.0002	0.0053	35.2	0.0225	<0.0000019	<0.001	0.0012		8.10	0.00013	0.176	<0.00002	5.01	0.636	29.6	<0.00001	<0.005	<0.005	0.00028	<0.005	<0.005	<0.0001	3.6
SeptimusBeaverPond	10/15/2021 15:15	AII749	M	C178993	<0.0005	0.06	<0.0002	0.0052	34.0	0.0331	<0.0000019	<0.001	0.0012		8.12	0.00012	0.154	<0.00002	4.90	0.63	30.8	<0.00001	<0.005	<0.005	0.00029	<0.005	<0.005	<0.0001	6.1
SeptimusBeaverPond	10/15/2021 15:25	AII750	M	C178993	<0.0005	0.058	<0.0002	0.0056	33.2	0.0963	<0.0000019	<0.001	0.0016		6.18	<0.0001	1.18	<0.00002	3.77	0.427	6.3	<0.00001	<0.005	<0.005	0.00014	<0.005	<0.005	<0.0001	5.3
SeptimusBeaverPond	10/15/2021 15:35	AII751	M	C178993	<0.0005	0.076	<0.0002	0.0055	34.9	0.0529	<0.0000019	<0.001	0.0012		7.97	<0.0001	0.933	<0.00002	4.63	0.517	16.4	<0.00001	<0.005	<0.005	0.00012	<0.005	<0.005	<0.0001	1.3
SeptimusBeaverPond	10/15/2021 15:40	AII752	M	C178993	<0.0005	0.076	<0.0002	0.0053	35.5	0.0538	<0.0000019	<0.001	0.0014		8.24	0.00012	0.212	<0.00002	5.10	0.622	31.9	<0.00001	<0.005	<0.005	0.00036	<0.005	<0.005	<0.0001	4.4
SeptimusBeaverPond	10/15/2021 15:50	AII753	M	C178993	<0.0005	0.071	<0.0002	0.0062	37.8	0.027	<0.0000019	<0.001	0.0015		7.31	0.00013	0.358	<0.00002	5.60	0.635	31.6	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	2.9
South_Crusher_Sump	11/3/2021 16:00	AJX286	M	C185315	0.0005	<0.01	<0.0002	0.0048	9.52	<0.001	<0.0000019	0.0024	<0.001		1.22	0.00031	3.13	<0.00002	3.99	0.109	4.9	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	1.2
WP-DS	1/13/2021 13:35	ZD9434	M	C102840	<0.0005	<0.01	<0.0002	0.0271	9.81	0.0031	0.0000034	0.0013	<0.001		0.972	0.00049	1.89	<0.00002	4.07	0.294	5.7	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	0.15
WP-DS	3/18/2021 12:30	ZM8663	M	C118036	<0.0005	<0.01	<0.0002	0.0256	9.84	0.0035	<0.0000019	0.0012	<0.001		0.984	0.00049	1.69	<0.00002	4.64	0.294	5.1	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	0.12
WP-DS	4/29/2021 11:50	ZS2244	M	C128572	<0.0005	<0.01	<0.0002	0.016	7.98	0.0024	<0.0000019	0.0013	<0.001		0.748	0.00052	1.44	<0.00002	2.80	0.224	4.2	<0.00001	<0.005	<0.005	0.00041	<0.005	<0.005	<0.0001	2.0
WP-DS	6/24/2021 14:31	AAP490	M	C144894	<0.0005	0.076	<0.0002	0.0069	5.33	0.0064	<0.0000019	0.0012	<0.001		0.346	0.00035	1.32	<0.00002	1.17	0.133	<3.0	<0.00001	<0.005	<0.005	0.00025	<0.005	<0.005	<0.0001	6.2
WP-DS	7/24/2021 13:55	ACO184	M	C153467	<0.0005	<0.01	<0.0002	0.0148	6.86	0.0027	<0.0000019	0.0012	<0.001		0.661	0.00038	1.22	<0.00002	2.15	0.214	<3.0	<0.00001	<0.005	<0.005	0.00039	<0.005	<0.005	<0.0001	0.52
WP-DS	8/28/2021 14:04	AEV017	M	C163786	<0.0005	<0.01	<0.0002	0.0218	8.92	0.0028	<0.0000019	0.0014	<0.001		1.01	0.0004	1.46	<0.00002	3.41	0.299	<3.0	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	0.36
WP-DS	9/18/2021 14:00	AGJ640	M	C170329	<0.0005	<0.01	<0.0002	0.0217	9.60	0.0021	<0.0000019	0.0014	<0.001		0.995	0.00056	1.47	<0.00002	3.85	0.279	5.4	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	0.55
WP-DS	10/9/2021 14:05	AHW996	M	C176835	<0.0005	<0.01	<0.0002	0.0095	6.49	0.0012	<0.0000019	0.0011	<0.001		0.521	0.00034	1.47	<0.00002	1.82	0.181	<3.0	<0.00001	<0.005	<0.005	0.00032	<0.005	<0.005	<0.0001	3.7
WP-DS	11/6/2021 14:20	AKD977	M	C186247	<0.0005	<0.01	<0.0002	0.0117	5.85	0.0022	0.000002	<0.001	<0.001		0.512	0.00033	1.16	<0.00002	1.86	0.17	<3.0	<0.00001	<0.005	<0.005	0.00031	<0.005	<0.005	<0.0001	1.7
WP-US	3/18/2021 12:00	ZM8662	M	C118036	<0.0005	<0.01	<0.0002	0.0292	9.77	0.0022	<0.0000019	0.0011	<0.001		1.12	0.00042	1.84	<0.00002	5.05	0.301	5.1	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	<0.10
WP-US	4/29/2021 12:20	ZS2243	M	C128572	<0.0005	<0.01	<0.0002	0.016	8.11	0.0022	<0.0000019	0.001	<0.001		0.777	0.00047	1.48	<0.00002	2.95	0.217	4.3	<0.00001	<0.005	<0.005	0.00038	<0.005	<0.005	<0.0001	3.5
WP-US	6/24/2021 14:13	AAP491	M	C144894	<0.0005	0.106	<0.0002	0.007	5.13	0.0067	0.0000024	0.0011	<0.001		0.344	0.00035	1.38	<0.00002	1.14	0.125	<3.0	<0.00001	<0.005	<0.005	0.00023	<0.005	<0.005	<0.0001	6.3
WP-US	7/24/2021 13:34	ACO183	M	C153467	<0.0005	0.012	<0.0002	0.0134	6.95	0.0016	<0.0000019	0.0011	<0.001		0.669	0.00043	1.27	<0.00002	2.06	0.24	<3.0	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	0.83
WP-US	8/28/2021 13:14	AEV016	M	C163786	<0.0005	<0.01	<0.0002	0.0226	8.53	0.0028	<0.0000019	0.0013	<0.001		1.05	0.00039	1.48	<0.00002	5.44	0.279	<3.0	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	0.42
WP-US	9/18/2021 12:15	AGJ639	M	C170329	0.00058	<0.01	<0.0002	0.0223	9.64	0.0029	<0.0000019	0.0013	<0.001		1.04	0.00041	1.47	<0.00002	4.10	0.27	6.2	<0.00001	<0.005	<0.005	0.00046	<0.005	0.0078	<0.0001	0.26
WP-US	10/9/2021 12:45	AHW995	M	C176835	<0.0005	<0.01	<0.0002	0.0096	6.57	0.0015	<0.0000019	0.001	<0.001		0.528	0.00033	1.51	<0.00002	1.79	0.177	3.0	<0.00001	<0.005	<0.005	0.0003	<0.005	<0.005	<0.0001	3.3
WP-US	11/6/2021 12:06	AKD976	M	C186247	0.00062	<0.01	<0.0002	0.0116	5.84	0.0023	0.0000024	<0.001	<0.001		0.646	0.00029	1.13	<0.00002	1.93	0.166	<3.0	<0.00001	<0.005	<0.005	0.0003	<0.005	<0.005	<0.0001	2.4

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not repo

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

PEACE RIVER
HYDRO PARTNERS

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
			pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/2/2021 15:45	ZC7218	4.88	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	0.0030
FIELDBLANK	1/5/2021 12:05	ZC8850	5.20	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	1/7/2021 13:20	ZD2461	5.33	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	1/10/2021 13:10	ZD4125	5.10	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.66	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	1/12/2021 13:30	ZD8128	5.27	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	1/14/2021 10:40	ZD9433	5.41	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	1/17/2021 13:50	ZE3024	5.38	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	1/21/2021 15:00	ZE9304	5.44	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	1/26/2021 13:40	ZF4773	5.35	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	1/28/2021 15:50	ZF8629	5.41	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	1/30/2021 14:05	ZG1729	5.53	<2.0	<0.10	<10	1.3	<0.50	<0.50	1.6	<1.0	1.9	<1.0	<1.0	0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	2/1/2021 14:35	ZG3588	5.62	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.6	<1.0	1.9	<1.0	<1.0	0.76	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	2/3/2021 14:50	ZG9148	5.31	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	2/7/2021 13:45	ZH3209	5.79	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.047	<0.010	<0.010	<0.010	0.0030
FIELDBLANK	2/13/2021 12:45	ZH8992	4.39	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	2/16/2021 14:10	ZI2029	5.97	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.3	<1.0	1.6	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	2/18/2021 14:10	ZI6455	5.23	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.59	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	2/20/2021 11:40	ZI8656	5.02	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	0.071	<0.010	<1.0	0.026	<0.010	<0.010	<0.010	
FIELDBLANK	2/22/2021 15:50	ZJ0345	5.31	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	2/24/2021 14:10	ZJ5664	5.40	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	2/26/2021 14:20	ZJ8524	5.23	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.63	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	2/28/2021 13:10	ZK2234	5.19	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.65	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/6/2021 10:10	ZL3537	5.92	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.71	<0.050	<0.010	<1.0	0.039	<0.010	<0.010	<0.014	<0.0030
FIELDBLANK	3/9/2021 14:50	ZL6926	5.98	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.1	<1.0	1.3	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/11/2021 13:00	ZL8468	5.54	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/13/2021 14:00	ZM2422	5.09	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/15/2021 12:15	ZM4116	5.65	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.3	<1.0	1.6	<1.0	<1.0	0.94	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/17/2021 14:40	ZM7320	6.03	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.97	<0.050	<0.010	<1.0	0.033	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/19/2021 13:35	ZM8867	5.85	<2.0	0.18	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.84	<0.050	<0.010	<1.0	0.024	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/21/2021 12:15	ZN1584	5.93	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.107	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	3/30/2021 13:25	ZO2684	6.35	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.3	<1.0	1.5	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.051	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/1/2021 11:40	ZO4125	5.79	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.018	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/3/2021 13:30	ZO6452	5.01	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/5/2021 13:00	ZO7519	5.10	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.152	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/7/2021 15:00	ZP0883	5.78	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.025	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/9/2021 13:30	ZP1765	5.05	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.038	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/11/2021 13:00	ZP3859	5.74	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.79	<0.050	<0.010	<1.0	0.017	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/28/2021 12:50	ZS0316	5.51	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.76	<0.050	0.021	<1.0	0.020	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	4/30/2021 11:15	ZS2250	5.98	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.6	<1.0	2.0	<1.0	<1.0	0.57	<0.050	<0.010	<1.0	0.016	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	5/2/2021 12:50	ZS6047	5.03	<2.0	0.12	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.031	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	5/11/2021 11:00	ZU0199	4.58	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.021	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	5/13/2021 10:50	ZU4938	4.78	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.56	<0.050	<0.010	<1.0	0.031	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	5/15/2021 15:10	ZU7902	5.72	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.633	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	5/17/2021 16:30	ZU9401	5.81	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.016	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	5/19/2021 13:55	ZV3576	5.55	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	5/21/2021 11:25	ZV5664	4.89	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.85	<0.050	<0.010	<1.0	0.086	<0.010	0.018	0.018	<0.0030
FIELDBLANK	5/23/2021 15:00	ZV8627	5.52	<2.0	0.20	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.019	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/1/2021 11:05	ZX3969	5.36	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.73	<0.050	<0.010	<1.0	0.018	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/3/2021 12:00	ZX7150	5.35	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.91	<0.050	<0.010	<1.0	0.019	<0.010	0.031	0.031	<0.0030
FIELDBLANK	6/5/2021 11:20	ZY0223	5.45	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/7/2021 11:20	ZY3090	5.60	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.58	<0.050	<0.010	<1.0	0.027	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/9/2021 14:00	ZY6855	5.49	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.024	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/11/2021 14:30	ZY9645	5.41	<2.0	0.64	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.024	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/13/2021 14:40	ZZ1996	5.00	2.1	0.14	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.83	<0.050	<0.010	<1.0	0.069	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/23/2021 15:10	AAO115	4.88	<2.0	0.11	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.019	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/25/2021 13:30	AAP488	5.31	<2.0	<0.10	32	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.075	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	6/27/2021 13:45	AAU320	5.30	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.047	<0.010	<0.010	<0.010	<0.0030

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
			pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	6/30/2021 11:30	AAZ003	5.24	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	0.060	<0.010	<1.0	0.020	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/2/2021 12:35	ABB261	4.83	<2.0	0.22	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.019	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/4/2021 13:50	ABD993	5.12	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	0.075	<0.010	<1.0	0.019	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/14/2021 12:50	ABX614	5.24	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	0.021	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/16/2021 11:50	ABZ191	5.21	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/18/2021 14:00	ACC418	5.31	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	0.020	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/20/2021 15:00	ACH816	5.12	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<0.50	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/23/2021 12:00	ACL702	4.95	<2.0	<0.10	16	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.63	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	7/25/2021 14:20	ACO191	5.17	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.75	<0.050	<0.010	<1.0	0.085	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	8/5/2021 11:15	ADK136	5.22	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.018	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	8/8/2021 12:50	ADN233	4.55	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.99	<0.050	<0.010	<1.0	0.017	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	8/24/2021 13:55	AEN135	4.61	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	8/26/2021 10:40	AER555	4.77	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.053	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	8/28/2021 11:20	AEV129	5.07	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.89	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	8/30/2021 10:25	AEX832	5.10	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.80	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/1/2021 16:00	AFC999	4.82	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.52	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/3/2021 11:35	AFF870	4.97	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.76	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/5/2021 14:20	AFI825	4.99	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.62	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/14/2021 17:00	AGB018	5.17	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.84	<0.050	<0.010	<1.0	0.028	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/16/2021 13:05	AGG330	5.15	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.022	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/18/2021 12:30	AGJ635	4.97	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.027	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/20/2021 10:50	AGM222	4.99	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.023	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/22/2021 11:15	AGR066	5.09	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.86	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	9/24/2021 12:00	AGV854	6.47	3.2	<0.10	<10	1.6	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	9/26/2021 15:40	AGX367	5.13	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.61	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/5/2021 14:50	AHO717	4.68	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/7/2021 17:40	AHU813	5.18	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/9/2021 12:10	AHX009	6.34	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.7	<1.0	2.1	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/11/2021 14:50	AHY663	4.86	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/13/2021 12:00	AIE377	5.30	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.027	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/15/2021 11:30	AII743	6.29	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.2	<1.0	1.5	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.0050	<0.020	<0.020	<0.0030
FIELDBLANK	10/17/2021 14:40	AIL271	5.18	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.77	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/26/2021 10:50	AJF139	5.05	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/28/2021 16:00	AJL910	5.11	<2.0	<0.10	<0.99	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	10/30/2021 12:20	AJO165	4.91	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/1/2021 14:40	AJS229	4.93	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/3/2021 12:40	AJX285	5.44	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/5/2021 11:35	AKA067	5.07	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/7/2021 11:05	AKE003	5.23	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/16/2021 15:10	AKV421	5.19	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/18/2021 11:00	AKZ643	4.79	<2.0	0.20	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/20/2021 10:40	ALR017	5.47	<2.0	<0.10	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/22/2021 11:05	ALQ578	4.60	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/24/2021 10:55	ALQ704	5.03	<2.0	<0.10	<10	<0.97	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030
FIELDBLANK	11/26/2021 10:30	FJ2101337-004	5.19	<2.0	<0.10	<10	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.020	<0.050	<0.050		<0.0010	<0.0050	<0.0051	<0.0010
FIELDBLANK	11/28/2021 10:30	FJ2101338-004	5.16	<2.0	<0.10	<10	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.020	<0.050	<0.050		<0.0010	<0.0050	<0.0051	<0.0010
FIELDBLANK	12/9/2021 10:35	FJ2101442-004	5.23	<2.0	<0.10	<10	<1.0	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.050	<0.30	<0.0050	<0.0010	<0.0050	<0.0051	<0.0010
FIELDBLANK	12/11/2021 14:10	FJ2101439-004	5.35	<2.0	<0.10	<10	<1.0	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.050	<0.30	<0.0050	<0.0010	<0.0050	<0.0051	<0.0010
FIELDBLANK	12/14/2021 12:05	FJ2101469-003	5.24	<2.0	<0.10	<10	<3.0	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<1.0	<5.0	<0.050	<0.0050	<0.10	<0.50		<0.0010
FIELDBLANK	12/19/2021 11:50	FJ2101494-003	5.36	<2.0	<0.10	<10	<1.0	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.050	<0.30	<0.0050	<0.0010	<0.0050	<0.0051	<0.0010
FIELDBLANK	12/24/2021 9:00	FJ2101513-002	5.55	<2.0	<0.10	<10	<1.0	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.020	<0.050	<0.30	<0.0050	<0.0010	<0.0050	<0.0051	<0.0010
TravelBlank_SW	12/3/2021 12:30	FJ2101374-003	5.23		<0.10	<10	<1.0	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.020	<0.050	0.051	<0.0050	<0.0010	<0.0050	<0.0051	0.0033

Note: Grey shading denotes values above reported detection limit. "<" = Result not detected and is below the indicated detection limit. No value shown indicates a test result was not reported

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/2/2021 15:45	ZC7218	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/5/2021 12:05	ZC8850	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/7/2021 13:20	ZD2461	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/10/2021 13:10	ZD4125	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/12/2021 13:30	ZD8128	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/14/2021 10:40	ZD9433	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/17/2021 13:50	ZE3024	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/21/2021 15:00	ZE9304	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/26/2021 13:40	ZF4773	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/28/2021 15:50	ZF8629	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	1/30/2021 14:05	ZG1729	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/1/2021 14:35	ZG3588	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/3/2021 14:50	ZG9148	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/7/2021 13:45	ZH3209	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/13/2021 12:45	ZH8992	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/16/2021 14:10	ZI2029	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/18/2021 14:10	ZI6455	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/20/2021 11:40	ZI8656	0.53	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/22/2021 15:50	ZJ0345	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/24/2021 14:10	ZJ5664	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/26/2021 14:20	ZJ8524	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	2/28/2021 13:10	ZK2234	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/6/2021 10:10	ZL3537	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/9/2021 14:50	ZL6926	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/11/2021 13:00	ZL8468	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/13/2021 14:00	ZM2422	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/15/2021 12:15	ZM4116	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/17/2021 14:40	ZM7320	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/19/2021 13:35	ZM8867	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/21/2021 12:15	ZN1584	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	3/30/2021 13:25	ZO2684	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	4/1/2021 11:40	ZO4125	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	0.000002	<0.001	<0.001	
FIELDBLANK	4/3/2021 13:30	ZO6452	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	4/5/2021 13:00	ZO7519	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	4/7/2021 15:00	ZP0883	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	4/9/2021 13:30	ZP1765	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	4/11/2021 13:00	ZP3859	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	4/28/2021 12:50	ZS0316	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	4/30/2021 11:15	ZS2250	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/2/2021 12:50	ZS6047	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/11/2021 11:00	ZU0199	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/13/2021 10:50	ZU4938	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/15/2021 15:10	ZU7902	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/17/2021 16:30	ZU9401	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/19/2021 13:55	ZV3576	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/21/2021 11:25	ZV5664	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	5/23/2021 15:00	ZV8627	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/1/2021 11:05	ZX3969	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/3/2021 12:00	ZX7150	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/5/2021 11:20	ZY0223	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/7/2021 11:20	ZY3090	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/9/2021 14:00	ZY6855	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/11/2021 14:30	ZY9645	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/13/2021 14:40	ZZ1996	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/23/2021 15:10	AAO115	<0.50	<0.50	0.0041	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	6/25/2021 13:30	AAP488	<0.50	<0.50	0.004	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	0.011	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0022	
FIELDBLANK	6/27/2021 13:45	AAU320	<0.50	<0.50	0.0051	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	0.00051	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	6/30/2021 11:30	AAZ003	<0.50	<0.50	0.006	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	0.0015	<0.0002	0.00094	0.012	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0019	
FIELDBLANK	7/2/2021 12:35	ABB261	<1.0	<0.50	0.0043	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	7/4/2021 13:50	ABD993	<0.50	<0.50	0.0045	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0012	
FIELDBLANK	7/14/2021 12:50	ABX614	<0.50	<0.50	0.004	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	0.082	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0013	
FIELDBLANK	7/16/2021 11:50	ABZ191	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	7/18/2021 14:00	ACC418	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	7/20/2021 15:00	ACH816	<0.50	<0.50	0.0033	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	7/23/2021 12:00	ACL702	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0018	
FIELDBLANK	7/25/2021 14:20	ACO191	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	0.065	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	8/5/2021 11:15	ADK136	<0.50	<0.50	0.0041	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	8/8/2021 12:50	ADN233	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	8/24/2021 13:55	AEN135	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	8/26/2021 10:40	AER555	0.60	<0.50	<0.003	<0.0005	0.00015	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	8/28/2021 11:20	AEV129	<0.50	<0.50	0.0045	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	8/30/2021 10:25	AEX832	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/1/2021 16:00	AFC999	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/3/2021 11:35	AFF870	<0.50	<0.50	0.0106	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	0.068	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/5/2021 14:20	AFI825	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/14/2021 17:00	AGB018	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/16/2021 13:05	AGG330	<0.50	<0.50	0.0031	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/18/2021 12:30	AGJ635	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/20/2021 10:50	AGM222	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/22/2021 11:15	AGR066	<0.50	<0.50	0.0055	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	0.060	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0011	
FIELDBLANK	9/24/2021 12:00	AGV854	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	9/26/2021 15:40	AGX367	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	10/5/2021 14:50	AHO717	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	10/7/2021 17:40	AHU813	<0.50	<0.50	0.0055	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0014	
FIELDBLANK	10/9/2021 12:10	AHX009	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	10/11/2021 14:50	AHY663	<0.50	<0.50	0.0043	<0.0005	<0.0001	0.0011	<0.0001	<0.001	<0.05	<0.00001	0.067	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	10/13/2021 12:00	AIE377	<0.50	0.54	0.004	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.0013	
FIELDBLANK	10/15/2021 11:30	AII743	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	10/17/2021 14:40	AIL271	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	10/26/2021 10:50	AJF139	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	0.0000034	<0.001	<0.001	
FIELDBLANK	10/28/2021 16:00	AJL910	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	10/30/2021 12:20	AJO165	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/1/2021 14:40	AJS229	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/3/2021 12:40	AJX285	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/5/2021 11:35	AKA067	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/7/2021 11:05	AKE003	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/16/2021 15:10	AKV421	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/18/2021 11:00	AKZ643	<0.50	<0.50	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/20/2021 10:40	ALR017	0.82	0.53	<0.012	<0.002	<0.0004	<0.004	<0.0004	<0.004	<0.2	<0.00004	<0.20	<0.004	<0.0008	<0.002	<0.04	<0.0008	<0.008	<0.20	<0.004	<0.0000019	<0.004	<0.004	
FIELDBLANK	11/22/2021 11:05	ALQ578	<0.50	<0.50	0.0037	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	0.051	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	0.072	<0.001	<0.0000019	<0.001	<0.001	
FIELDBLANK	11/24/2021 10:55	ALQ704	1.84	1.55	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	0.042	
FIELDBLANK	11/26/2021 10:30	FJ2101337-004																							
FIELDBLANK	11/28/2021 10:30	FJ2101338-004																							
FIELDBLANK	12/9/2021 10:35	FJ2101442-004	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050
FIELDBLANK	12/11/2021 14:10	FJ2101439-004	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050
FIELDBLANK	12/14/2021 12:05	FJ2101469-003	<0.50	0.63	0.0033	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050
FIELDBLANK	12/19/2021 11:50	FJ2101494-003	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050
FIELDBLANK	12/24/2021 9:00	FJ2101513-002	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050
TravelBlank_SW	12/3/2021 12:30	FJ2101374-003	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050

Note: Grey shading denotes values above reported detection limit. "<" = Result not detected and is below the indicated detection limit. No value shown indicates a test result was not reported

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/2/2021 15:45	ZC7218	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/5/2021 12:05	ZC8850	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/7/2021 13:20	ZD2461	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/10/2021 13:10	ZD4125	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/12/2021 13:30	ZD8128	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/14/2021 10:40	ZD9433	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/17/2021 13:50	ZE3024	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/21/2021 15:00	ZE9304	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/26/2021 13:40	ZF4773	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	1/28/2021 15:50	ZF8629	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	0.072	<0.001
FIELDBLANK	1/30/2021 14:05	ZG1729	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/1/2021 14:35	ZG3588	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/3/2021 14:50	ZG9148	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/7/2021 13:45	ZH3209	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/13/2021 12:45	ZH8992	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/16/2021 14:10	ZI2029	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/18/2021 14:10	ZI6455	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/20/2021 11:40	ZI8656	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/22/2021 15:50	ZJ0345	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/24/2021 14:10	ZJ5664	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/26/2021 14:20	ZJ8524	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	2/28/2021 13:10	ZK2234	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/6/2021 10:10	ZL3537	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/9/2021 14:50	ZL6926	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/11/2021 13:00	ZL8468	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/13/2021 14:00	ZM2422	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/15/2021 12:15	ZM4116	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/17/2021 14:40	ZM7320	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/19/2021 13:35	ZM8867	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/21/2021 12:15	ZN1584	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	3/30/2021 13:25	ZO2684	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/1/2021 11:40	ZO4125	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/3/2021 13:30	ZO6452	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/5/2021 13:00	ZO7519	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/7/2021 15:00	ZP0883	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/9/2021 13:30	ZP1765	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/11/2021 13:00	ZP3859	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/28/2021 12:50	ZS0316	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	4/30/2021 11:15	ZS2250	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/2/2021 12:50	ZS6047	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/11/2021 11:00	ZU0199	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/13/2021 10:50	ZU4938	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/15/2021 15:10	ZU7902	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/17/2021 16:30	ZU9401	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/19/2021 13:55	ZV3576	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/21/2021 11:25	ZV5664	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	5/23/2021 15:00	ZV8627	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/1/2021 11:05	ZX3969	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/3/2021 12:00	ZX7150	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/5/2021 11:20	ZY0223	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/7/2021 11:20	ZY3090	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/9/2021 14:00	ZY6855	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/11/2021 14:30	ZY9645	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/13/2021 14:40	ZZ1996	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/23/2021 15:10	AAO115	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/25/2021 13:30	AAP488	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0053	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	6/27/2021 13:45	AAU320	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0061	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	6/30/2021 11:30	AAZ003	<0.050	<0.0001	<0.1	<0.00002	0.082	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/2/2021 12:35	ABB261	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/4/2021 13:50	ABD993	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/14/2021 12:50	ABX614	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/16/2021 11:50	ABZ191	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	5.8	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/18/2021 14:00	ACC418	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/20/2021 15:00	ACH816	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/23/2021 12:00	ACL702	<0.050	<0.0001	<0.1	<0.00002	0.072	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	7/25/2021 14:20	ACO191	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0075	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	8/5/2021 11:15	ADK136	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	8/8/2021 12:50	ADN233	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	8/24/2021 13:55	AEN135	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	8/26/2021 10:40	AER555	0.063	<0.0001	<0.1	<0.00002	0.081	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	8/28/2021 11:20	AEV129	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	8/30/2021 10:25	AEX832	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/1/2021 16:00	AFC999	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/3/2021 11:35	AFF870	<0.050	<0.0001	<0.1	<0.00002	0.079	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/5/2021 14:20	AFI825	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/14/2021 17:00	AGB018	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/16/2021 13:05	AGG330	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	4.2	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/18/2021 12:30	AGJ635	<0.050	<0.0001	<0.1	<0.00002	0.052	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	0.000014	<0.050	<0.001
FIELDBLANK	9/20/2021 10:50	AGM222	<0.050	<0.0001	<0.1	<0.00002	0.107	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/22/2021 11:15	AGR066	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0142	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/24/2021 12:00	AGV854	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	9/26/2021 15:40	AGX367	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	4.8	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/5/2021 14:50	AHO717	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/7/2021 17:40	AHU813	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/9/2021 12:10	AHX009	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/11/2021 14:50	AHY663	<0.050	<0.0001	<0.1	<0.00002	0.058	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/13/2021 12:00	AIE377	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/15/2021 11:30	AII743	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/17/2021 14:40	AIL271	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/26/2021 10:50	AJF139	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/28/2021 16:00	AJL910	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	10/30/2021 12:20	AJO165	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/1/2021 14:40	AJS229	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/3/2021 12:40	AJX285	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/5/2021 11:35	AKA067	<0.050	<0.0001	<0.1	<0.00002	0.063	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/7/2021 11:05	AKE003	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/16/2021 15:10	AKV421	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/18/2021 11:00	AKZ643	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/20/2021 10:40	ALR017	<0.20	<0.0004	<0.4	<0.00008	<0.050	<0.004	<12	<0.00004	<0.02	<0.02	<0.0004	<0.02	<0.02	0.00055	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/22/2021 11:05	ALQ578	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/24/2021 10:55	ALQ704	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001
FIELDBLANK	11/26/2021 10:30	FJ2101337-004																								
FIELDBLANK	11/28/2021 10:30	FJ2101338-004																								
FIELDBLANK	12/9/2021 10:35	FJ2101442-004	<0.050	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0030	<0.00020	<0.0010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
FIELDBLANK	12/11/2021 14:10	FJ2101439-004	<0.050	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0030	<0.00020	<0.0010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
FIELDBLANK	12/14/2021 12:05	FJ2101469-003	<0.050	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0030	<0.00020	<0.0010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
FIELDBLANK	12/19/2021 11:50	FJ2101494-003	<0.050	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0030	<0.00020	<0.0010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
FIELDBLANK	12/24/2021 9:00	FJ2101513-002	<0.050	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0030	<0.00020	<0.0010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
TravelBlank_SW	12/3/2021 12:30	FJ2101374-003	<0.050	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0030	<0.00020	<0.0010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000050	<0.010	<0.0000050	<0.050	<0.00050

Note: Grey shading denotes values above reported detection limit. "<" = Result not detected and is below the indicated detection limit. No value shown indicates a test result was not reported

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	D-Co	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/2/2021 15:45	ZC7218	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/5/2021 12:05	ZC8850	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/7/2021 13:20	ZD2461	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/10/2021 13:10	ZD4125	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/12/2021 13:30	ZD8128	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/14/2021 10:40	ZD9433	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/17/2021 13:50	ZE3024	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/21/2021 15:00	ZE9304	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/26/2021 13:40	ZF4773	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/28/2021 15:50	ZF8629	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/30/2021 14:05	ZG1729	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/1/2021 14:35	ZG3588	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/3/2021 14:50	ZG9148	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/7/2021 13:45	ZH3209	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/13/2021 12:45	ZH8992	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/16/2021 14:10	ZI2029	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/18/2021 14:10	ZI6455	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	0.060	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/20/2021 11:40	ZI8656	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/22/2021 15:50	ZJ0345	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/24/2021 14:10	ZJ5664	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/26/2021 14:20	ZJ8524	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/28/2021 13:10	ZK2234	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/6/2021 10:10	ZL3537	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/9/2021 14:50	ZL6926	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/11/2021 13:00	ZL8468	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/13/2021 14:00	ZM2422	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/15/2021 12:15	ZM4116	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/17/2021 14:40	ZM7320	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/19/2021 13:35	ZM8867	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/21/2021 12:15	ZN1584	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/30/2021 13:25	ZO2684	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/1/2021 11:40	ZO4125	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/3/2021 13:30	ZO6452	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/5/2021 13:00	ZO7519	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/7/2021 15:00	ZP0883	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/9/2021 13:30	ZP1765	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/11/2021 13:00	ZP3859	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/28/2021 12:50	ZS0316	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/30/2021 11:15	ZS2250	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/2/2021 12:50	ZS6047	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/11/2021 11:00	ZU0199	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/13/2021 10:50	ZU4938	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/15/2021 15:10	ZU7902	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/17/2021 16:30	ZU9401	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/19/2021 13:55	ZV3576	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/21/2021 11:25	ZV5664	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	5/23/2021 15:00	ZV8627	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/1/2021 11:05	ZX3969	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/3/2021 12:00	ZX7150	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/5/2021 11:20	ZY0223	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/7/2021 11:20	ZY3090	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/9/2021 14:00	ZY6855	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/11/2021 14:30	ZY9645	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/13/2021 14:40	ZZ1996	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/23/2021 15:10	AAO115	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/25/2021 13:30	AAP488	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	0.0000021	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/27/2021 13:45	AAU320	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001

Appendix 3-D: 2021 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	D-Co	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	6/30/2021 11:30	AAZ003	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/2/2021 12:35	ABB261	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/4/2021 13:50	ABD993	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/14/2021 12:50	ABX614	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/16/2021 11:50	ABZ191	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/18/2021 14:00	ACC418	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/20/2021 15:00	ACH816	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/23/2021 12:00	ACL702	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	7/25/2021 14:20	ACO191	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	8/5/2021 11:15	ADK136	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	8/8/2021 12:50	ADN233	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	8/24/2021 13:55	AEN135	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	8/26/2021 10:40	AER555	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	8/28/2021 11:20	AEV129	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	8/30/2021 10:25	AEX832	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/1/2021 16:00	AFC999	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	0.078	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/3/2021 11:35	AFF870	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/5/2021 14:20	AFI825	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	4.9	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/14/2021 17:00	AGB018	<0.0002	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/16/2021 13:05	AGG330	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/18/2021 12:30	AGJ635	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/20/2021 10:50	AGM222	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/22/2021 11:15	AGR066	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/24/2021 12:00	AGV854	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	9/26/2021 15:40	AGX367	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/5/2021 14:50	AHO717	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/7/2021 17:40	AHU813	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	0.0000026	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	0.060	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/9/2021 12:10	AHX009	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/11/2021 14:50	AHY663	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	0.054	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/13/2021 12:00	AIE377	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/15/2021 11:30	AII743	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/17/2021 14:40	AIL271	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/26/2021 10:50	AJF139	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/28/2021 16:00	AJL910	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	10/30/2021 12:20	AJO165	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/1/2021 14:40	AJS229	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/3/2021 12:40	AJX285	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/5/2021 11:35	AKA067	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/7/2021 11:05	AKE003	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/16/2021 15:10	AKV421	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/18/2021 11:00	AKZ643	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/20/2021 10:40	ALR017	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/22/2021 11:05	ALQ578	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/24/2021 10:55	ALQ704	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001		<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	11/26/2021 10:30	FJ2101337-004																									
FIELDBLANK	11/28/2021 10:30	FJ2101338-004																									
FIELDBLANK	12/9/2021 10:35	FJ2101442-004	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.050	<0.000050	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	0.0012	<0.00020
FIELDBLANK	12/11/2021 14:10	FJ2101439-004	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.050	<0.000050	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010	<0.00020
FIELDBLANK	12/14/2021 12:05	FJ2101469-003	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.050	<0.000050	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010	<0.00020
FIELDBLANK	12/19/2021 11:50	FJ2101494-003	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.050	<0.000050	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	0.0018	<0.00020
FIELDBLANK	12/24/2021 9:00	FJ2101513-002	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.050	<0.000050	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	0.0018	<0.00020
TravelBlank_SW	12/3/2021 12:30	FJ2101374-003	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.050	<0.000050	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010	<0.00020

Note: Grey shading denotes values above reported detection limit. "<" = Result not detected and is below the indicated detection limit. No value shown indicates a test result was not reported

Appendix 3-E: Water Quality Monitoring Field QA/QC Program

PEACE RIVER
HYDRO PARTNERS

TECHNICAL MEMORANDUM

To:	**Kael Hanak, Caroline Walmsley; PRHP**	**Date:**	**16 May 2018**
From:	**Meghan Goertzen, Neil Mallen**	**Project #:**	**A416-1**
Subject:	**Surface Water Quality QA/QC Program ARD/ML Management and Monitoring Site C Clean Energy Project**		

The purpose of this Memorandum is to document the Quality Assurance / Quality Control (QA/QC) Program that is employed by Lorax Environmental Services Ltd. (Lorax) on behalf of Peace River Hydro Partners (PRHP) for the Main Civil Works Contract for the Site C Clean Energy Project. The QA/QC program has been developed and implemented for surface water quality monitoring within the construction site. It is intended to validate monitoring data, and to identify potential deficiencies of the monitoring program.

The integrity of the water quality sampling program, and analytical measurements of samples collected within it, are evaluated using various QA/QC practices. It is recommended that these practices include collection of quality control samples (blanks and replicates) and the establishment of data quality objectives for sample results (with specific objectives for dissolved vs. total metal concentrations, and sample hold times). Recommended QA/QC components are presented in further detail below.

The results of the QA/QC Program are documented in quarterly and annual metal leaching and acid rock drainage (ARD/ML) monitoring reports that are prepared by Lorax for submission to PRHP. Reporting includes the number of field blanks and replicates collected, as well as the proportion of these samples as compared with the total number of water quality samples obtained. General industry practice suggests one QA/QC sample (*e.g.*, a blank or duplicate) should be obtained for every 10 water quality samples obtained (or 10%) as part of the monitoring program. The report also includes an analysis and interpretation of samples in which a dissolved metal concentration exceeds the total concentration, and documents exceedance of hold times recommended by the analytical laboratory, as well as certain practical limitations with respect to hold times.

1. Blanks

Blank water quality samples are comprised of analyte-free reagent water and are used to assess sample contamination (as recommended by Clark, 2013). Field blanks are used to detect potential contamination resulting from the sample collection method, handling, filtration, preservation, and exposure to the environment. Blank samples are typically collected by having the environmental monitor pour de-ionized (DI) water into clean sample bottles in the same environment in which

actual samples are collected, and then processing the blank at the laboratory in the same manner as other samples.

2. Replicates

Replicates are independent samples collected as close as possible from the same location and at the same time as the original to characterize environmental variability and the precision of the entire sampling and analytical process (as per Clark, 2013). For the purpose of this Memorandum, originals and duplicates are considered paired replicates collected from the same location sequentially in time.

The BC Field Sampling Manual (Clark, 2013) provides the following acceptability criteria for field duplicates:

> *It should be expected that the Relative Percent Difference (RPD) is somewhat greater than that for laboratory duplicates. If one of a set of duplicate values is at or greater than five times the Method Detection Limit, then RPD values >20% indicate a possible problem, and > 50% indicate a definite problem, most likely either contamination or lack of sample representativeness.*

Any duplicate samples for which the RPD is greater than 20% and greater than 50% are reported. In addition, duplicates that had parameters with RPDs greater than 50%, in which the parameter value was greater than five-times the RDL in at least one of the sample duplicates, are reported in a separate table.

3. Total versus Dissolved Metals

For the purpose of this QA/QC program, a dissolved metal concentration that is higher than the corresponding total metal concentration is considered to be an indication of potential sample contamination or analytical error. Total and dissolved metals data for samples collected at all water quality monitoring stations in each quarter are compared. The dissolved metal concentration is flagged as a potential QA/QC issue if the concentration is >20% higher than the corresponding total metal value in the same sample. Variability of less than 20% is excluded because it is within the analytical margin of error.

Dissolved and total metal pairs are included in this analysis if the dissolved value is greater than five-times its reported detection limit (RDL), similar to guidance presented in the BC Field Sampling Manual (Clark 2013) for acceptability criteria for duplicate sample. This is more conservative than the industry convention which limits the analysis to parameter pairs where *both* total and dissolved values are greater than five-times RDL.

4. Sample Hold Time

Sample hold time is the length of time between collection of a water sample and its analysis at the laboratory. Recommended sample hold times are summarized in Table 4-1 below. In general, transport of samples from the Project site to the designated laboratory (Maxxam) depot in Fort St John typically occur on the same day as sample collection. Samples are then transported to the Maxxam laboratory, located in Burnaby B.C., which typically receives the samples the same evening or the following day.

Based on guidance from Maxxam, parameters with the shortest hold-times (three days or less) include ammonia (if unpreserved), nitrate / nitrite, pH, and turbidity. Results for these parameters may be associated with higher uncertainty if the hold times are exceeded.

Table 4-1:
Recommended water quality sample hold times (Source: Maxxam Analytics)

Analytical Parameter	Hold Time
Alkalinity	14 Days
Ammonia	28 Days
Ammonia, Un-Preserved	3 Days
Bromide	28 Days
Chloride	28 Days
Chromium VI - Dissolved	30 Days
Chromium VI - Total	30 Days
Conductivity	28 Days
Dissolved Organic Carbon (DOC)	28 Days
Fluoride	28 Days
Metals – Dissolved	180 Days
Metals – Total	180 Days
Nitrate/Nitrite	3 Days
pH	15 Minutes
Phosphorus – Total	28 Days
Solids - TDS	7 Days
Solids – TSS	7 Days
Sulphate	28 Days
Total Organic Carbon (TOC)	28 Days
Total Nitrogen (TN)	28 Days
Turbidity	3 Days

As of May 2017, hold time exceedances have been flagged by Maxxam and reported in each sample's Certificate of Analysis (CoA) as a laboratory comment. All comments are entered into PRHP's EQWIN database during data import; hold times are reviewed on a weekly basis by Lorax as part of the weekly ARD report, and recommendations for improvement are provided as necessary.

5. Closure

We trust that this technical memorandum addresses your current needs. Please contact us should you have any questions.

Respectively Submitted,
Lorax Environmental Services Ltd.

Original Signed by:

Meghan Goertzen, M.Sc., R.P.Bio.
Environmental Toxicologist

Original Signed by:

Neil Mallen, M.Sc., EP, PMP
Senior Environmental Scientist

Appendix 3-F: Bureau Veritas (Burnaby) Scope of Accreditation

PEACE RIVER
HYDRO PARTNERS

Standards Council of Canada
Conseil canadien des normes

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 117

Legal Name of Accredited Laboratory:	**Bureau Veritas Canada (2019) Inc., formerly known as Maxxam Analytics**
Location Name or Operating as (if applicable):	
Contact Name:	Alice (Hsiao Yun) Lu
Address:	4606 Canada Way, Burnaby, BC. V5G 1K5
Telephone:	+1 604 734-7276
Fax:	+1 604 731-2386
Website:	www.bvna.com
Email:	Alice.A.Lu@bureauveritas.com

SCC File Number:	15188
Accreditation Standard(s):	ISO/IEC 17025:2017
Fields of Testing:	Biological Chemical/Physical Forensic
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Environmental Testing (ET) Forensic
Initial Accreditation:	1993-06-08
Most Recent Accreditation:	2021-04-22
Accreditation Valid to:	2025-06-08

Forensic Testing currently being conducted at both:
8577 Commerce Court,
Burnaby BC V5A 4N5
And
4606 Canada Way,
Burnaby, BC V5G 1K5

Forensics:
Forensic Equine Drug Testing (Drugs in Horse Hair, Urine and Blood)

ANIMAL AND PLANTS (AGRICULTURE)

Foods and Edible Products: (Human and Animal Consumption)

(Feed)

BBY4SOP-00105	Determination of 17-a-Methyltestosterone in Feed

(Food Methods: Proximate Analysis)

BBY4SOP-00104	Determination Histamine in Fish

(Fruits and Vegetables, Processed Foods, Animal Tissue, Meat, Fish, Dairy, Honey, Eggs and Egg Products and Animal Derived Foods)

BBY4SOP-00048	Determination of Tetracyclines in Tissue and Animal Derived Foods Doxycycline Chlortetracycline Oxytetracycline Tetracycline epi-Tetracycline epi- Oxytetracycline epi- Chlortetracycline
BBY4SOP-00052	Determination of Phenol in Honey
BBY4SOP-00061	Determination of Halofuginone in Tissue and Animal Derived Foods
BBY4SOP-00066	Alachlor Heptachlor Aldrin Heptachlor Epoxide-endo Endosulfan-alpha Heptachlor Epoxide-exo Ametryn Hexachlorobenzene Aspon Iprobenfos Benalaxyl Isofenphos Benfluralin Isopropalin Endosulfan-beta Isoprothiolane

BHC-alpha
Kresoxim-methyl
BHC-beta
Leptophos
BHC-delta
Lindane (gamma-BHC)
Bifenthrin
Malathion
Bromophos
Metazachlor
Bromophos-ethyl
Methoxychlor
Bromopropylate
Methyl Pentachlorophenyl sulphide
Bupirimate
Metolachlor
Butachlor
Mirex
Carboxin
Myclobutanil
Chlorbenzilate
o,p'-DDD (o,p'-TDE)
Chlordimeform
o,p'-DDE
Chlorflurenol-methyl
o,p'-DDT
Chloropropylate
Oxadiazon
Chlorpropham
Oxychlordane
Chlorpyrifos
p,p'-DDD (p,p'-TDE)
Chlorpyrifos-methyl
p,p'-DDE
Chlorthiophos
p,p'-DDT
Chlozolinate
Penconazole
Cyprazine
Pentachloroaniline
Cyprodinil
Phenthoate
Dacthal
Piperonyl Butoxide
Demeton-S-methyl
Pirimicarb
Desmetryn
Pirimiphos-ethyl
Diazinon

Pirimiphos-methyl
Diclobutrazole
Procymidone
Diclofop-methyl
Profenofos
Dieldrin
Profluralin
Diethatyl-ethyl
Prometon
Dimethachlor
Prometryne
Diphenamid
Pronamide
Diphenylamine
Propachlor
Disulfoton
Propanil
Endosulfan Sulfate
Propazine
Endrin
Propetamphos
Ethalfluralin
Prothiophos
Ethion
Pyrazophos
Ethofumsate
Quinalophos
Ethoprophos
Quintozene (PCNB)
Ethylan
Secbumeton
Etrimfos
Sulfotep
Fenarimol
Sulprophos
Fenchlorophos (Ronnel)
Tecnazene
Flamprop-isopropyl
Terbutylazine
Flamprop-methyl
Tetrasul
Fluchloralin
Thiobencarb
Fludioxonil
Tolclofos-methyl
Fluorochloridone
Triazophos
Flusilazole
Trifluralin

	Fonofos Vinclozolin
BBY4SOP-00118	Determination of Herbicide in Food Clopyralid Florasulam Fluroxypyr Bromoxynil Bentazon MCPA (2-methyl-4-chlorophenoxyacetic acid; 4-chloro-o-tolyoxyacetic acid) 2,4-D (2,4-dichlorophenoxyacetic acid) Metsulfuron Methyl (Ally) Thiencarbazone-methyl
BBY4SOP-00121	Fumonisins in Grains, Corn Products and Processed Foods
BBY7SOP-00011	Analysis of Metals in Meat, Fruit and Vegetables, Processed Foods and Animal Derived Foods by ICP-MS
BBY7SOP-00021	Digestion of Tissue, Vegetation for Analysis of Heavy Metals

(Microbiological)

AOAC 2014.05	Enumeration of Yeast and Moulds in Food using 3M™ Petrifilm™ Rapid Yeast And Mold Count (RYM) Plate
Assurance GDS® MPX Top 7 STEC Assay	BioControl Assurance GDS® MPX Top 7 STEC
COR1SOP-00019	Enumeration of Coliforms, Faecal Coliforms and *E.coli* in Foods by using the MPN Method(Modified MFHPB-19; option of standard 3-tube and 10-tube MPN Method)
FDA BAM	BAM FDA Isolation and Identification of Salmonella in Food and Environment Samples
MFHPB-10	Isolation of *Escherichia coli* O157:H7/NM from foods and environmental surface samples
MFHPB-18	Determination of Aerobic Colony Count in Foods
MFHPB-19	Enumeration of Coliforms, Faecal Coliforms and *E. coli* in Foods by using the MPN Method
MFHPB-20	Isolation and Identification of *Salmonella* from Foods and Environmental Samples
MFHPB-21	Enumeration of *Staphylococcus aureus* in Foods
MFHPB-22	Enumeration of Yeasts and Molds in Foods
MFHPB-23	Enumeration of *Clostridium perfringens* in Foods
MFHPB-29	VIDAS Detection of Listeria spp. in Food, Environmental Samples
MFHPB-30	Isolation of *Listeria monocytogenes* and *Listeria spp.* from Foods and Environmental Samples
MFHPB-33	Enumeration of Total Aerobic Bacteria in food Products and Food Ingredients Using 3M™ Petrifilm™ Aerobic Count Plates

MFHPB-34	Enumeration of *E. coli* and Coliforms in Food Products and Food Ingredients using 3M™ Petrifilm™ *E. coli Count* Plates
MFHPB-35	Enumeration of Coliforms in Food Products and Food Ingredients using 3M™ Petrifilm™ Coliform Count Plates
MFLP-09	Enumeration of *Enterobacteriaceae* Species in Food and Environmental Samples Using 3M Petrifilm *Enterobacteriaceae* Count Plates
MFLP-16	Detection of *Escherichia coli* O157:H7 in Foods - Assurance GDS® for E. coli O157:H7 Gene Detection System
MFLP-21	Enumeration of *Staphylococcus aureus* in Foods and Environmental Samples Using 3M™ Petrifilm™ Staph Express Count (STX) Plates
MFLP-25	Isolation and Identification of *Shigella spp*. From Foods
MFLP-28	The Qualicon BAX ®System Method for the Detection of *Listeria monocytogenes* in a Variety of Food
MFLP-29	The Qualicon BAX® System for the Detection of *Salmonella* in Foods and Environmental Surface Samples
MFLP-30	Detection of E. coli O157:H7 in select foods using the BAX® system E.coli O157:H7 MP
MFLP-33	Detection of *Listeria monocytogenes* in Foods by the VIDAS LMO 2™ Method
MFLP-37	Part 1: Detection of Halophilic Vibrio Species in Seafood Part 2: Detection of *Vibrio cholerae*
MFLP-38	Detection of *Salmonella spp*. from All Foods and Selected Environmental Surfaces using IQ-Check™ Salmonella Real-time PCR Test Kit
MFLP-39	Detection of *Listeria* spp. from Environmental Surfaces and heat processed RTE Meat and Poultry Using iQ-CheckTM Listeria spp. Real-Time PCR Test Kit
MFLP-42	Isolation and Enumeration of *Bacillus cereus* Group in Foods
MFLP-46	Isolation of Thermophilic *Campylobacter* from Food
MFLP-49	Detection of Salmonella *spp* in Food Products and environmental surfaces by the VIDAS® UP Salmonella (SPT) Method
MFLP-54	Detection of *Listeria monocytogenes* from selected foods using iQ-Check™ *Listeria monocytogenes* Real-Time PCR Test Kit
MFLP-59	Detection of *Listeria spp.* in food products and environmental surface samples with VIDAS® UP *Listeria* (LPT)
MFLP-74	Enumeration of *Listeria monocytogenes* in Food
MFLP-77	Detection of *Listeria* spp. in food products and environmental samples by the VIDAS® *Listeria* species Xpress (LSX) method
MFLP-79	Detection of *Listeria* spp. in Environmental Surface Samples Using the BAX® System Real-Time PCR Assay for *Listeria* Genus
MFLP-83	Detection of Verotoxins VT 1 And VT 2 from *E. coli* O157:H7/NM by The Merck Duopath® Verotoxin Kit

MLG4	FSIS Procedure for the Isolation and Identification of *Salmonella* from Meat, Poultry, Pasteurized egg and Siluriformes (Fish) products and Carcass and Environmental Sponge samples
MLG41	Isolation, Identification of Campylobacter jejuni/coli/lari from Poultry Rinse and Sponge and Raw Product Samples
COR1SOP-00089	USP: Enterobacterial Count in NHP by MPN Method
COR1SOP-00093	USP: Detection and Enumeration for *Pseudomonas aeruginosa* in NHP

(Natural Health Products)

BBY4SOP-00150	Determination of Pesticides in Natural Health Products
USP40-NF35 S1. Dietary Supplements Chapters: 2021	Microbial Enumeration Tests-Nutritional and Dietary Supplements Total Aerobic Microbial Count by Plate Method
USP40-NF35 S1. Dietary Supplements Chapters: 2021	Microbial Enumeration Tests-Nutritional and Dietary Supplements Total Combined Molds and Yeast Count by Plate Method
USP40-NF35 S1. Dietary Supplements Chapters: 2022	Microbiological Procedures for absence of specified microorganisms - Nutritional and Dietary Supplements Test for Absence of *Staphylococcus aureus*
USP40-NF35 S1. Dietary Supplements Chapters: 2022	Microbiological Procedures for absence of specified microorganisms - Nutritional and Dietary Supplements Test for Absence of *Salmonella species*
USP40-NF35 S1. Dietary Supplements Chapters: 2022	Microbiological Procedures for absence of specified microorganisms - Nutritional and Dietary Supplements Test for Absence of *Escherichia coli*

(Other)

BBY4SOP-00032	Determination of Aminoglycocides in Tissue and Animal Derived Foods
BBY4SOP-00033	Determination of Dithiocarbamates (EBDC) in Fruits and Vegetables, Processed Foods and Animal Derived Foods by CS_2 Evolution
BBY4SOP-00035	Determination of Chlorinated Phenols in Tissue and Animal Derived Foods
BBY4SOP-00036	Determination of Fluoroquinolones and Quinolones in Tissue and Animal Derived Food
BBY4SOP-00037	Determination of Synthetic Pyrethrins in Animals Tissue and Animal Derived Foods
BBY4SOP-00038	Determination of Carbamates in Tissue and Animal Derived Foods
BBY4SOP-00043	Determination of Ethylenebisdithiocarbamate (EBDC) in Fruits and Vegetables,Processed Foods and Animal Derived Foods

BBY4SOP-00044	Determination of Daminozide (ALAR) in Fruits and Vegetables, Processed Foods and Animal Derived Foods
BBY4SOP-00045	Determination of Ethylenethiourea in Fruits and Vegetables, Processed Foods and Animal Derived Foods
BBY4SOP-00046	Determination of Coccidiostats in Tissue and Animal Derived Foods
BBY4SOP-00047	Determination of Gestagens in AnimalTissue and Dairy
BBY4SOP-00050	Determination of Sulfonamides in Tissue and Animal Derived Foods
BBY4SOP-00051	Determination of Amitraz and Metabolites in Fruits and Vegetables, Processed Foods and Animal Derived Foods
BBY4SOP-00054	Determination of Dipyrone Related Residues in Tissue and Animal Derived Foods
BBY4SOP-00055	Determination of Free and Total Residues of Beta Agonists in Tissue and Animal Derived Foods
BBY4SOP-00056	Determination of Virginiamycin in Tissue and Animal Derived Foods
BBY4SOP-00059	Determination of Ceftiofur-Related Residues in Tissue and Animal Derived Foods
BBY4SOP-00060	Determination of Benzimidazoles in Tissue and Animal Derived Foods
BBY4SOP-00062	Determination of Endectocides in Tissue, Feedand Animal Derived Foods
BBY4SOP-00063	Determination of Phenylbutazone in Tissue and Animal Derived Foods
BBY4SOP-00064	Determination of Protein Bound Metabolites of Nitrofurans in Tissue and Animal Derived Foods
BBY4SOP-00068	Determination of Tranquilizers and Carazolol in Tissue and Animal Derived Foods
BBY4SOP-00069	Determination of Morantel and Pyrantel Drug Related Metabolites in Tissue and Animal Derived Foods
BBY4SOP-00070	Determination of Zeranol and Stilbenes in Tissue and Animal Derived Foods
BBY4SOP-00079	Determination of Volatile Pesticides in Tissue
BBY4SOP-00080	Detection of Thyreostats in Animal Tissue, Eggs and Dairy
BBY4SOP-00082	Determination of Triphenylmethane Dyes in Tissue
BBY4SOP-00083	Determination of Carbadox and Olaquindox-Related Metabolites in Tissue
BBY4SOP-00084	Determination of Amphenicols in Tissue and Animal Derived Foods
BBY4SOP-00085	Determination of Bacitracin A in Tissue and Animal Derived Foods
BBY4SOP-00086	Determination of Nitroimidazoles in Tissue and Animal Derived Foods
BBY4SOP-00087	Determination of Aflatoxin in Dairy

BBY4SOP-00089	Determination of Beta Lactams in Animal Tissue and Animal Derived Foods
BBY4SOP-00091	Determination of Non-Steroidal Anti-Inflammatory Drugs (NSAIDS), Hormones and Corticosteroids in Animal Tissue, Eggs and Dairy
BBY4SOP-00092	Determination of Melamine in Eggs, Dairy and Processed Foods
BBY4SOP-00093	Determination of Bisphenol A in Dairy and Processed Foods
BBY4SOP-00094	Determination of Ochratoxin A in Cereals and Processed Foods
BBY4SOP-00095	Determination of Deoxynivalenol (Vomitoxin) in Cereal and Cereal Products
BBY4SOP-00099	Determination of Macrolides in Tissue and Animal Derived Foods
BBY4SOP-00100	Determination of Trenbolone in Tissue and Animal Derived Foods
BBY4SOP-00111	Aflatoxins in Food and Animal Feed
BBY4SOP-00123	Determination of Pesticides in Process Foods by GCMSMS and LCMSMS
BBY4SOP-00128	Determination of Pesticides in FV Products and Honey by GC/LC
BBY4SOP-00129	Determination of Pesticides in Tissue by GCMSMS and LCMSMS
BBY4SOP-00130	Determination of Tiamulin in Animal Tissue
BBY4SOP-00131	Determination of 3-monochloropropane-1,2-diol (3-MCPD) in Food and Food Ingredients
BBY4SOP-00132	Multi-Residue Determination of Multi-Class Drugs in Urine
BBY4SOP-00134	Determination of Ethyl Carbamate in Alcoholic Beverages
BBY4SOP-00135	Determination of Diquat and Paraquat in Fruit, Vegetables and Processed Foods
BBY4SOP-00136	Determination of Glyphosate and Metabolites in Fruit, Vegetables and Processed Foods
BBY4SOP-00137	Determination of Alternaria Mycotoxins in Beverages and Honey
BBY4SOP-00138	Multi-Residue Determination of Multi-Class Drugs in Animal Tissue and Animal Derived Foods
BBY4SOP-00139	Multi-Residue Determination of Multi-Class Antibiotics in Honey
BBY4SOP-00142	Determination of Steroids and Stilbenes in Fish
BBY4SOP-00144	Multi-Residue Determination of Multi-Class Drugs in Animal Feed and Pre-Feed
BBY4SOP-00145	Determination of 4-Methylimidazole in Processed Foods
BBY4SOP-00146	Determination of T-2 and HT2 Mycotoxins in Processed Foods
BBY4SOP-00147	Determination of Zearalenone and Related Mycotoxins in Processed Foods
BBY4SOP-00149	Multi-residue determination of Mycotoxins in Processed Foods
BBY7SOP-00014	Determination of Mercury in Tissue Digests
BBY4SOP-00151	Phthalates in Food by LC-MS/MS
BBY4SOP-00152	Determination of Polar Pesticides in Food Amitrole Chlormequat Cyromazine

Daminozide
Desphenyl Chloridazon
Difenzoquat
Diquat
ETU (Ethylenethiourea)
Melamine
Mepiquat
Nereistoxin
Paraquat
Propamocarb

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental

(Microbiological)

BBY4SOP-00001	Total and Fecal Coliform and *E. coli* in Water by Membrane Filtration
BBY4SOP-00003	Heterotrophic Plate Count in Water
BBY4SOP-00005	*Pseudomonas aeruginosa* Count in Water by Membrane Filtration
BBY4SOP-00006	*Enterrococcus* Count in Water by Membrane Filtration
BBY4SOP-00143	Enumeration of Coliforms and E.coli by MF using Chromocult

(Biological Tissues)

BBY4SOP-00108	Determination of Polycyclic Aromatic Hydrocarbons in Tissue by GC/MS
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS
BBY7SOP-00012	Determination of Hg in Solids, Tissues and Miscellaneous Solids by CVAFS

(Air)

BBY5SOP-00005	Analysis of Total Suspended Particulates (TSP), PM2.5, and PM10 in Air [modified from BC Environmental Laboratory Manual Section G and EPA 600/R-94/038B]
	Particulate>2.5 microns (gravimetric)
BBY7SOP-00016	Preparation of Air Filters for Metals Analysis [modified from NIOSH 7303]
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020]
	Aluminum

	Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Sodium Strontium Sulphur (Sulfur) Tin Titanium Uranium Vanadium Zinc Zirconium
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [EPA 6010] Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese

	Molybdenum Nickel Phosphorus Potassium Selenium Sodium Strontium Sulphur (Sulfur) Tin Titanium Vanadium Zinc Zirconium
BBY8SOP-00027	Determination of Polycyclic Aromatic Hydrocarbons in Air by GC/MS [modified from BC Environmental Laboratory Manual (Preparation) and EPA 8270 (Analysis)] Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo(a)pyrene Benzo(b,j)fluoranthene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo (a,h) anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Perylene Phenanthrene Pyrene
BBY8SOP-00058	VOCs In Air/vapour Using TD Tubes with Analysis by GC/MS [modified from BC Environmental Laboratory Manual Section H] 1,1-Dichloroethane 1,1-Dichloroethene 1,1-Dichloropropene 1,1,1-Trichloroethane 1,1,1,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2,2-Tetrachloroethane 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (Ethylene dibromide) 1,2-Dichlorobenzene

1,2-Dichloroethane
1,2-Dichloropropane
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,3-Trimethylbenzene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3-Butadiene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,3,5-Trimethylbenzene
1,4-Dichlorobenzene
2-Butanone (Methyl ethyl ketone, MEK)
2-Chlorophenol
2-Chlorotoluene
2-Hexanone (Methyl butyl ketone, MBK)
2-Propanol (Isopropyl alcohol)
4-Chlorotoluene (p-Chlorotoluene)
4-isopropyltoluene (p-Cymene)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromobenzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon Disulphide
Carbon tetrachloride
Chlorobenzene
Chloroethane (Ethyl Chloride)
Chloroethene (Vinyl chloride)
Chloroform
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dibromochloromethane
Dibromomethane
Dichlorodifluoromethane (Freon12)
Dichloromethane
Ethyl Acetate
Ethylbenzene
Hexachlorobutadiene
Isopropanol
Isopropylbenzene (Cumene)
m,p-Xylene
Methyl tert-butyl ether (MTBE)
Methylcyclohexane
n-Butylbenzene
n-Decane
n-Hexane

n-Propylbenzene
Naphthalene
o-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethylene
Toluene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Trichlorotrifluoroethane
Volatile Hydrocarbons (VH): C6-C13

(Soil/Solid/Water/Wastewater)

BBY6SOP-00010	Nitrite and Nitrite Plus Nitrate by Automated Colourimetric Method [modified from SM 4500-NO3- I] Nitrate + Nitrite Nitrogen Nitrite
BBY6SOP-00017	Determination of Sulfate by Konelab [modified from SM 4500-SO4 2-] Sulphate
BBY8SOP-00010	Determination of BTEX in Soil and Waters by Headspace-GC-MS [modified from EPA 5021 and EPA 5035 and EPA 8260] Benzene Ethylbenzene m,p-Xylene Methyl t-butyl ether o-Xylene Styrene Toluene
BBY8SOP-00011	VH Analysis in Soils and Waters by Headspace GC/FID [modified from BC Environmental Laboratory Manual Section D] VH: C6-C10 VPH: C6-C10 - BTEX
BBY8SOP-00029	Extractable Hydrocarbons (Water, Soils, Product, TPH) [modified from BC Environmental Laboratory Manual Section D] Extractable Petroleum Hydrocarbons (EPH): C10-C19 Extractable Petroleum Hydrocarbons (EPH): C19-C32 Total Extractable Hydrocarbons (TEH): C10-C30
BBY8SOP-00030	Determination of CCME (F2-F4) in Water and Soil [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD] F2: C10-C16 F3: C16-C34 F4: C34-C50
BBY8SOP-00012	F1 and LH Analysis for Soils and Waters by Headspace GC/FID [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD]

	F1: C6-C10 F1-BTEX: C6-C10 - BTEX
BBY8SOP-00054	CP, NCP, HydroxyPhenol in water (MTBE extraction) and soil by GC/MS [modified from BC Environmental Laboratory Manual Section D] 2-Chlorophenol 2-Hydroxyphenol (Catechol) 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-o-cresol, DNOC) 2-Methylphenol (o-Cresol) 2-Nitrophenol 2,3-Dichlorophenol 2,3,4-Trichlorophenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-Tetrachlorophenol 2,3,5-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,6-Trichlorophenol 2,4 + 2,5-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,6-Dichlorophenol 2,6-Dimethylphenol 3 + 4-Chlorophenol 3 + 4-Methylphenol 3-Hydroxyphenol (Resorcinol) 3,4-Dichlorophenol 3,4-Dimethylphenol 3,4,5-Trichlorophenol 3,5-Dichlorophenol 4-Chloro-3-methylphenol 4-Hydroxyphenol (Hydroquinone) 4-Nitrophenol Pentachlorophenol Phenol
BBY8SOP-00060	Determination of Tetraethyllead in Soil and Water by GC/MS [modified from BC Environmental Laboratory Manual Section D and EPA 8000, EPA 8270] Tetraethyl lead
BBY8SOP-00009	Analysis of VOC's in Solids and Waters by Static Headspace GC/MS [modified from EPA 5021 and EPA 8260] 1,1-Dichloroethane 1,1-dichloroethylene 1,1-Dichloropropene 1,1,1-Trichloroethane 1,1,1,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2-Trichloropropane

1,1,2-Trichloro-1,2,2-Triflouroethane (Freon 113)
1,1,2,2-Tetrachloroethane
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (Ethylene dibromide)
1,2-dichlorobenzene
1,2-dichloroethane
1,2-Dichloropropane
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,3-Trichloropropene
1,2,3-Trimethylbenzene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3-Butadiene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,3,5-Trichlorobenzene
1,3,5-Trimethylbenzene
1,4-dichlorobenzene
2-Butanone
2-Chlorotoluene
4-Methyl-2Pentanone
4-Chlorotoluene (p-Chlorotoluene)
4-isopropyltoluene (p-Cymene)
Acetone
Benzene
Bromobenzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane (Ethyl Chloride)
Chloroethene (Vinyl Chloride)
Chloroform
Chloromethane (Methyl chloride)
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dibromomethane
Dichlorodifluoromethane
Dichloromethane
Ethylbenzene
Ethylene Dibromide
Hexachlorobutadiene
Hexane
Isopropylbenzene (Cumene)
m,p-Xylene
Methyl t-butyl ether

	Methylcyclohexane n-Butylbenzene n-Decane n-Propylbenzene Naphthalene o-Xylene Pentachloroethane sec-Butylbenzene Styrene tert-Butylbenzene Tetrachloroethylene Toluene trans-1,2-Dichloroethylene trans-1,3-Dichloropropene Trichloroethylene Trichlorofluoromethane
BBY8SOP-00040	VOC Extra Compounds in Soil and Water by Headspace-GC-MS [BC Environmental Laboratory Manual Section D] 1-Butanol (n-Butanol) 1-Chlorobutane 1,4-Dioxane (p-dioxane) 2-Hexanone (Methyl butyl ketone, MBK) 2-Propanol (Isopropyl alcohol) Acrolein (Propenal) Acrylonitrile Allyl chloride (3-chloropropene) Alpha-Diisobutylene Beta-Diisobutylene Butylated hydroxytoluene (BHT) Carbon disulfide Chloroprene (2-Chloro-1,3-butadiene) Cyclohexanone Cyclohexene Dicyclopentadiene Ethyl acrylate Ethyl ether Hexachloroethane Isobutanol (2-Methyl-1-propanol) Methyl methacrylate Methylacrylonitrile Tetrabromomethane Tetrahydrofuran (THF) Vinyl acetate

(Soil/Solid/Waste)

BBY6SOP-00042	Determination of Flash Point by SetaFlash Closed Tester [modified from ASTM D3828] Flashpoint

BBY6SOP-00043	Determination of Free Liquid [modified from EPA 9095] Free Liquid
BBY7SOP-00004	Digestion of Soil, Sediment and Sludge for Total Recoverable Metals [modified from BC Environmental Laboratory Manual Section C]
BBY7SOP-00012	Determination of Hg in Solids, Tissues and Miscellaneous Solids by CVAFS [modified from EPA 245.7 and BC Environmental Laboratory Manual Section C] Mercury
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [modified from EPA 6010 and BC Environmental Laboratory Manual Section B] Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silver Sodium Strontium Tin Titanium Vanadium Zinc Zirconium
BBY8SOP-00003	Gravimetric Heavy Hydrocarbon-CCME F4G in Soils by AME [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD] F4: Gravimetric
BBY8SOP-00006	Total Oil and Grease in Soils by Sonification Extraction-Dichloromethane [modified from BC Environmental Laboratory Manual Section D] Total Oil and Grease

BBY8SOP-00007	Mineral Oil and Grease in Solid Samples by Sonification Extraction [modified from BC Environmental Laboratory Manual Section D] Mineral Oil and Grease
BBY8SOP-00008	Waste Oil Quantification in Solids, Liquids by Petroleum Ether Extraction [BC Environmental Laboratory Manual Section D] Waste Oil Content
BBY8SOP-00017	Determination of Moisture Content in Solid Samples [modified from BC Environment Laboratory Manual] Percent Moisture
BBY8SOP-00022	Determination of Polycyclic Aromatic Hydrocarbons in Soil by GC/MS [modified from BC Environmental Laboratory Manual Section D] 1-Methylnaphthalene 2-Chloronaphthalene 2-Methylnaphthalene 3-Methylcholanthrene 4-Nitropyrene 7,12-Dimethylbenz(a)anthracene 9,10-Anthraquinone Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(c)phenanthrene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(j)fluoranthene Benzo(k)fluoranthene Chrysene Dibenzo(a,e)pyrene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3 - cd)pyrene N-Methylaniline Naphthalene Perylene Phenanthrene Pyrene Quinoline
BBY8SOP-00050	Determination of Tributyltin in Soil and Sediment by GC-MS [modified from RESTEK CORP APPLICATION NOTE# 59550] Tributyltin Dibutyltin

(Water/Wastewater/Soil Extract/Soil Leachate)

BBY0SOP-00003	Determination of pH in Waters, Leachates and Extracts by pH Meter [modified from SM 4500-H+ B] pH
BBY0SOP-00006	Determination of Conductivity in Waters, Leachates and Extracts by Meter [modified from SM 2510 B] Conductivity (25˚C)
AB SOP-00007	Ammonia-Nitrogen by Automated Phenate Colorimetric method [modified from EPA 350.1] Ammonia
BBY6SOP-00011	Determination of Chloride by Konelab [modified from SM 4500-CL-E and BC Environmental Laboratory Manual Section B] Chloride
BBY6SOP-00013	Ortho-, Total Dissolved, and Total Phosphate by Automated Method [modified from SM 4500-P E] Phosphate Total Dissolved Phosphorus Total Phosphorus
BBY6SOP-00016	Determination of Total and Total Dissolved Nitrogen by Automated Method [modified from SM 4500-N C] Total Dissolved Nitrogen Total Nitrogen
BBY6SOP-00021	Determination of Apparent Colour in Water Samples [modified from SM 2120 B] Apparent Colour
BBY6SOP-00024	Chemical Oxygen Demand (COD) by Closed Reflux, Colorimetric Method [modified from SM 5220 D] COD
BBY6SOP-00025	Determination of pH in Saturated Paste Extract [modified from SM 4500-H+ B] pH
BBY6SOP-00026	pH, Conductivity, Salinity, Alkalinity (Total, Phenolphthalein) in Water [modified from SM 2320 B, SM 2510 B, SM 4500-H+ B] Alkalinity (pH 4.5) Conductivity (25˚C) pH
BBY6SOP-00027	Determination of Turbidity in Water Samples [modified from SM 2130 B] Turbidity
BBY6SOP-00028	Determination of pH in Soil Leachate [modified from BC Environmental Laboratory Manual Section B] pH
BBY6SOP-00029	Specific Conductance in Satpaste and 1:5 DI Leach by Conductivity Cell [modified from SM 2510 B] Conductivity

BBY6SOP-00030	Satpaste Extract Preparation for Saturation Percent, Salinity Analyses [modified from BC Environmental Laboratory Manual Section B] Percent Saturation Saturated Paste
BBY6SOP-00033	Determination of Total Dissolved Solids in Waters and Wastewaters [modified from SM 2540 C] Total Dissolved Solids
BBY6SOP-00034	Determination of Total Suspended Solids in Waters and Wastewaters [modified from SM 2540 D] Total Suspended Solids
BBY6SOP-00035	Determination of Total Solids and Total Solids Fixed in Waters [modified from SM 2540 A] Fixed Solids Total Solids (TS)
BBY6SOP-00037	Determination of Total Acidity pH 8.3, Acidity to pH 4.5, in Waters [modified from SM 2310 B] Acidity
BBY6SOP-00045	Total and Carbonaceous BOD, DO, and pH Analysis [modified from SM 5210 B] BOD (5 day) CBOD (5 day)
BBY6SOP-00048	Determination of Fluoride in Waters, Soil Extracts, Leachates by ISE [modified from BC MOE ENVIRONMENTAL MANAGEMENT ACT HAZARDOUS WASTE REGULATION (EMA/HWR) SCHEDULE 4, PART 2 (Preparation) and SM 4500-F- C (Analysis)] Fluoride
BBY6SOP-00057	Determination of True Colour in Water Samples by Konelab [modified from SM 2120 C] True Colour
BBY7SOP-00001	Determination of Metals in Solids by ICPMS [modified from EPA 6020] Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Manganese Mercury Molybdenum Nickel

	Selenium
	Silver
	Thallium
	Tin
	Vanadium
	Uranium
	Zinc
	Zirconium
BBY7SOP-00005	Procedure for the Preparation of Solids and Soil using TCLP [EPA 1311]
BBY7SOP-00009	Procedure for the Preparation of Leachates Using BC MLEP [modified from BC MOE ENVIRONMENTAL MANAGEMENT ACT HAZARDOUS WASTE REGULATION (EMA/HWR) SCHEDULE 4, PART 2]
BBY8SOP-00021	Determination of Polycyclic Aromatic Hydrocarbons in Waters by GC/MS [modified from BC Environmental Laboratory Manual Section D]
	1-Methylnaphthalene
	2-Chloronaphthalene
	2-Methylnaphthalene
	3-Methylcholanthrene
	4-Nitropyrene
	7,12-Dimethylbenz(a)anthracene
	9,10-Anthraquinone
	Acenaphthene
	Acenaphthylene
	Acridine
	Anthracene
	Benzo(a)anthracene
	Benzo(a)pyrene
	Benzo(b,j)fluoranthene
	Benzo(c)phenanthrene
	Benzo(e)pyrene
	Benzo(g,h,i)perylene
	Benzo(k)fluoranthene
	Chrysene
	Dibenzo(a,e)pyrene
	Dibenzo(a,h)anthracene
	Fluoranthene
	Fluorene
	Indeno(1,2,3-cd)pyrene
	N-Methylaniline
	Naphthalene
	Perylene
	Phenanthrene
	Pyrene
	Quinoline
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [modified from EPA 6010]

	Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Tin Titanium Vanadium Zinc Zirconium
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020 and BC Environmental Laboratory Manual Section C] Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Cesium Chromium Cobalt Copper Gold

	Iron Lanthanum Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Palladium Phosphorus Platinum Potassium Rubidium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Tellurium Thallium Thorium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium
BBY7SOP-00003	Digestion of Aqueous Samples for Metals by ICPMS or ICP-OES [modified from EPA 6020 and BC Environmental Laboratory Manual Section C]
AB SOP-00084	Mercury in Water, Leachates and Liquids by Bromination and Cold Vapour [modified from BC Environmental Laboratory Manual Section C) Mercury
BBY7SOP-00022	Determination of Ultra-Low Level Mercury in Water by CVAFS [modified from EPA 1631] Mercury
BBY8SOP-00004	Oil and Grease in Water Samples by Hexane Extraction and Gravimetry [modified from BC Environmental Laboratory Manual Section D] Mineral Oil and Grease Total Oil and Grease
BBY8SOP-00059	Determination of Tributyltin in Water by GC-MS [modified from RESTEK CORP LIT. CAT#59550] Dibutyltin Tributyltin

BBY8SOP-00025	Chlorinated Phenols in Water (DCM extraction) by GC/MS [modified from BC Environmental Laboratory Manual Section D] 2-Chlorophenol 2,3-Dichlorophenol 2,3,4-Trichlorophenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-tetrachlorophenol 2,3,5-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,6-Trichlorophenol 2,4 + 2,5-Dichlorophenol 2,4,5-Trichlorophenol 2,4,6-trichlorophenol 2,6-Dichlorophenol 3 + 4-Chlorophenol 3,4-Dichlorophenol 3,4,5-Trichlorophenol 3,5-Dichlorophenol 4-Chloro-3-Methylphenol Pentachlorophenol

(Seawater)

BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020] Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silicon Silver

Sodium
Strontium
Sulphur (Sulfur)
Tellurium
Tin
Thallium
Titanium
Uranium
Vanadium
Zinc
Zirconium

(Soil / Solid – Toxicology)

BBY2SOP-00010	Chironomids dilutus 10-Day Survival and Growth Test [EPS 1/RM/32] Chironomids (10d)
BBY2SOP-00011	Hyalella azteca 14-Day Survival and Growth Test [EPS 1/RM/33] Hyalella azteca (14d)
BBY2SOP-00012	Marine or Estuarine Amphipod 10 Day Survival and Reburial Test [EPS 1/RM/26 and EPS 1/RM/35] Marine Amphipods (10d)
BBY2SOP-00014	Microtox - Acute Solid Phase Analysis [EPS 1/RM/42] Microtox IC50
BBY2SOP-00030	Neanthes arenaceodentata Survival and Growth Test Neanthes (20d)
BBY2SOP-00032	Bivalve Larval Development Sediment Test [PUGET SOUND ESTUARY PROGRAM 1995 B] Bivalves (48hr)
BBY2SOP-00062	Echinoderm Embryo / Larval Development Test [EPS 1/RM/58] Echinoid Larval Development (48hr)

(Water – Toxicology)

BBY2SOP-00001	Ceriodaphnia dubia Chronic Survival and Reproduction Test [EPS 1/RM/21] Ceriodaphnia dubia (7d)
BBY2SOP-00002	Fathead Minnow 7 Day Survival and Growth Test [EPS 1/RM/22] Fathead Minnow (7d)
BBY2SOP-00004	Rainbow Trout Acute Survival Test (Environment Canada) [EPS 1/RM/13 and EPS 1/RM/9] Single Concentration (96hr) Trout LC50 (96hr)
BBY2SOP-00006	Pseudokirchneriella Subcapitata 72H Growth Inhibition Test [EPS 1/RM/25] Pseudokirchneriella subcapitata (72hr)
BBY2SOP-00007	Daphnia magna 48 Hour Acute Test [EPS 1/RM/11 and EPS 1/RM/14] Daphnia LC50 (48hr)

	Daphnia Single Concentration (48hr)
BBY2SOP-00009	Echinoid 20 Minute Fertilization Test [EPS 1/RM/27] Echinoderm Fertilization (20 min)
BBY2SOP-00053	Lemna minor 7 Day Growth Inhibition Test [EPS 1/RM/37] Lemna minor (7d)
BBY2SOP-00061	Rainbow Trout Acute Survival Test with pH Stabilization [EPS 1/RM/50] Single Concentration (96hr) - pH Stabilization Trout LC50 (96hr) - pH Stabilization

FORENSICS

Forensic Equine Drug Testing

Description of Activities:
(Drugs in Horse Hair, Urine and Blood)

1.Screening and confirmatory analysis for drugs and metabolites in equine body fluids, including quantification where required.

2.Testing of known and unknown substances including powders, liquids, dosage forms, feeds, drug administration paraphernalia and other materials for the presence of drugs, using in-house validated methods incorporating the following techniques:

Techniques for which laboratory is accredited:

a. High-performance liquid chromatography
b. Immunoassay
c. Mass spectrometry
d. Sample preparation, extraction and general chemical tests

Notes:

(Medical Gases Piping Systems)

The Medical Gas Piping System inspection portion of Bureau Veritas' scope of accreditation has recently been transferred to SCC's Inspection Body program. A scope listing may be found at:
https://www.scc.ca/en/accreditation/programs/inspection-bodies/directory

ISO/IEC 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories

RG FORENSIC: SCC Requirements and Guidance for the Accreditation for Forensic Testing Laboratories

BBY2SOP: Laboratory Standard Operating Procedures.

Standards Council of Canada
Conseil canadien des normes

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

Elias Rafoul
Vice President, Accreditation Services
Publication on: 2021-04-23

Canada

Appendix 3-G: Bureau Veritas (Calgary) Scope of Accreditation

PEACE RIVER
HYDRO PARTNERS

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 836

Legal Name of Accredited Laboratory:	**Bureau Veritas Canada (2019) Inc. (Formerly Maxxam Analytics)**
Location Name or Operating as (if applicable):	Bureau Veritas Calgary
Contact Name:	Pantea Niksirat
Address:	2020-41st Avenue, N.E., Calgary AB R2E 6P2
Telephone:	+1-403 735-2271
Fax:	+1-403-291-9468
Website:	www.bvna.com
Email:	Calgary-QA-Staff-AB@bureauveritas.com

SCC File Number:	151043
Accreditation Standard(s):	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
Fields of Testing:	Biological Chemical/Physical
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Environmental Testing (ET)
Initial Accreditation:	2016-08-30
Most Recent Accreditation:	2021-04-15
Accreditation Valid to:	2024-08-30

SCC Group Accreditation:
This laboratory is a part of a Group Accreditation with the following facilities in accordance with SCC's policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

15229 - Bureau Veritas Canada (2019) Inc. (Formerly Maxxam Analytics) - 6744 - 50 Street NW, Edmonton, AB, T6B 3M9, Accredited Laboratory No. 160
151039 - Bureau Veritas Canada (2019) Inc. (Formerly Maxxam Analytics) - Unit D, 675 Berry St., Winnipeg, MB, R3H 1A7, Accredited Laboratory No. 837

Testing is performed at the following locations:

Air testing: #1 2080-39th Avenue N.E. Calgary, AB. T2E 6P7
Inorganic, organic chemistry and water microbiology: 4000-19 Street N.E Calgary, AB T2E 6P8 and #3-4 2080-39th Avenue N.E. Calgary, AB. T2E 6P7, and 2021 – 41 Avenue NE, Calgary, AB T2E 6P2
Food testing: #112, 3442-118 Ave S.E. Calgary, AB T2Z 3X1.

* These test methods can be performed on-site as per RG-On-Site-Testing.

ANIMAL AND PLANTS (AGRICULTURE)

Foods and Edible Products (Human and Animal Consumption):

(Microbiology)

Assurance GDS ® MPX Top 6 STEC Assay	Assay BioControl Assurance GDS ® MPX Top 6 STEC
Assurance GDS ® MPX Top 7 STEC Assay	BioControl Assurance GDS ® MPX Top 7 STEC
MFHPB-10	Isolation of Escherichia coli O157:H7/NM from foods and environmental surface samples
MFHPB-18	Determination of Aerobic Colony Counts in Foods
MFHPB-20	Isolation and Identification of *Salmonella* from Food and Environmental Samples
MFHPB-22	Enumeration of Yeast and Moulds in Foods
MFHPB-30	Isolation of *Listeria monocytogenes* and *Listeria* spp. from foods and environmental samples
MFHPB-33	Enumeration of Total Aerobic Bacteria in Food Products and Food Ingredients Using 3M™ Petrifilm™ Aerobic Count Plates
MFHPB-34	Enumeration of *Escherichia coli* and Coliforms in Food Products and Food Ingredients Using 3M™ Petrifilm™ *E. coli* Count Plates
MFLP-09	Enumeration of *Enterobacteriaceae* species in Food and Environmental Samples Using 3M™ Petrifilm™ *Enterobacteriaceae* Count Plates
MFLP-16	Detection of *Escherichia coli* O157:H7 in foods - Assurance GDS® for *E. coli* O157:H7 Tq Gene Detection System
MFLP-21	Enumeration of *Staphylococcus aureus* in Foods and Environmental Samples Using 3M™ Petrifilm™ *Staph.* Express Count (STX) Plates
MFLP-28	The Qualicon Bax® System Method for the Detection of *Listeria monocytogenes* in a Variety of Food.

MFLP-29	The BAX® System Method for the detection of Salmonella in foods and environmental surface samples.
MFLP-30	Detection of *Escherichia coli* O157:H7 in Select Foods using the BAX® System *E. coli* O157:H7 MP.
MFLP-36	Detection of *Salmonella* in Foods and Environmental Surface Samples-Assurance GDS® for *Salmonella* Tq Genetic Detection System
MFLP-54	Detection of *Listeria monocytogenes* from selected foods using iQ-Check™ *Listeria monocytogenes* Real-Time PCR Test Kit
MFLP-74	Enumeration of *Listeria monocytogenes* in foods
MFLP-79	Detection of *Listeria* spp. in Environmental Surface Samples using the BAX®System Real-Time PCR Assay for *Listeria* genus
MLG4	Isolation and Identification of *Salmonella* from Meat, Poultry, Pasteurized Egg and Siluriformes (fish) Products and Carcass and environmental sponges
MLG41	Isolation and Identification of *Campylobacter jejuni/coli/lari* from Poultry Rinse, Sponge and Raw Product Samples

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental:

Soil/Solid/Waste

AB SOP-00045	Specific Gravity (Modified SM 2710 F, MSSMA 2.25, and Petroleum and Natural Gas Industries- Field Testing of Drilling Fluids NS SM-2710F – water inorganic) Gravimetric Specific Gravity
AB SOP-00047	Free Liquid (Paint Filter Test) (Modified EPA 9095 B) Volumetric Free Liquid in Waste Samples

Water

AB SOP-00011	Silica (Reactive) by Konelab - Molybdate/ANSA Reduction Method (Modified EPA 370.1] Colorimetric Reactive Silica
*AB SOP-00016	Chemical Oxygen Demand (Total and Dissolved) (Modified SM 5220 D) Colorimetric COD

AB SOP-00017	Biochemical Oxygen Demand (Modified SM 5210 B) D.O. Meter BOD (5 day) CBOD (5 day)
AB SOP-00024	Total Phosphorus by Konelab - Ascorbic Acid Reduction Method (Modified from SM 4500-P, A, B, F) Colorimetric Inorganic phosphorus Total Phosphorus
AB SOP-00032	The Determination of Residual Chlorine in Waters (Modified SM 4500 C1G) Colorimetric Free Chlorine Total Chlorine
AB SOP-00041	Ferrous and Ferric Iron in Water-Colorimetric Determination (Modified SM 3500-Fe A, B) Colorimetric Ferrous Iron
AB SOP-00058	Dissolved Oxygen- Modified Winkler Method (Modified SM 4500-O C) Titrimetric Dissolved Oxygen
AB SOP-00060	Naphthenic Acids in water by FTIR (Modified EPA 3510C R3/FTIR) IR Naphthenic Acids
*AB SOP-00061	Total Suspended Solids, Total Fixed Solids, Total Volatile Solids (Modified SM 2540 D, E) Gravimetric Total Suspended Solids Total Suspended Solids Fixed Total Suspended Solids Volatile
AB SOP-00065	Total Dissolved Solids [Modified SM 2540 C] Gravimetric Total Dissolved Solids
AB SOP-00070	Extraction and Analysis of Naphthenic Acids in Water (DCM Extraction) [Modified from Syncrude 1995 m] IR DCM Extraction Naphthenic Acids
AB SOP-00084	Mercury in Waters, Leachates and Liquids by Bromination and Cold Vapour

	[Modified BC MOE LABORATORY MANUAL SECTION C and EPA 245.7] Mercury
AB SOP-00087	Organic Carbon by Technicon - Persulfate UV Oxidation (Modified Methods Manual for Chemical Analysis of Water and Wastes, Method Code 119) Colorimetric Organic Carbon
AB SOP-00092	Oil and Grease Water Analysis by Gravimetric Hexane Extraction Method (Modified SM 5520 B, Gravimetric) Total Oil and Grease Total Petroleum Hydrocarbons (TPH)
CAL SOP-00040	Bromate, Chlorate, Chlorite by IC – Conductivity detection (Modified SM 4110 D) Ion Chromatography Bromate Chlorate Chlorite
CAL SOP-00049	Colour by Konelab (Modified SM 2120C) Spectrophotometric Apparent colour True Color
CAL SOP-00055	Volatile Organic Acids (Modified from Dionex ICE-AS6 DOC NO 34961) Ion Chromatography Glycolic Acid Lactic Acid
CAL SOP-00057	Iodide/Thiocyanate/Thiosulfate (Modified DIONEX, DOC NO 034035) Ion Chromatography Iodide Thiocyanate Thiosulfate
CAL SOP-00063	Volatile Organic Acids (Modified DIONEX ICE-AS1 DOC NO 031181) Ion Chromatography Acetic Acid Butyric Acid Formic Acid Propionic Acid
CAL SOP-00065	Oxalic Acid by Ion Chromatography - Conductivity Detection (Modified from SM 4110B)

	Ion Chromatography Oxalic Acid
CAL SOP-00071	Sulphite by IC (Modified SM 4110 B) Ion Chromatography - Conductivity Detector Sulfite
CAL SOP-00076	Total and Dissolved Inorganic Carbon by Automated Colourimetry (Modified AE 2411) - Water Inorganic Carbon
CAL SOP-00081	Turbidity – Nephelometric Method (Modified SM 2130 B) Nephelometric Turbidity
CAL SOP-00099	Extraction and analysis of Resin and Fatty Acids in water by GCMS (Modified AE 129.0 and EPA 8270E) GC/MS 12,14-Dichlorodehydroabietic Acid 12-Chlorodehydroabietic Acid 14-Chlorodehydroabietic Acid 9,10-Dichlorostearic Acid (C18) Abietic Acid Decanoic Acid C10 Dehydroabietic Acid Docosanoic Acid C22 Docosanoic Acid C12 Eicosanoic Acid C20 Hexadecanoic Acid C16 Isopimaric Acid Linoleic Acid C18:2 Linoleic Acid C18:3 Neoabietic Acid Octadecanoic Acid C18 Oleic Acid C18:1 Palustric Acid Pimaric Acid Sandaracopimaric Acid Tetradecanoic Acid (C14) Undecanoic Acid (C11) Total of Resin Acids Total of Fatty Acids
CAL SOP-00273	Determination of Chlorophyll and Pheophytin (Modified SM 23 10200 H) Chlorophyll A Chlorophyll B Chlorophyll C Pheophytin

Emissions (Air)

EMS SOP-00009	Sorbent traps for the determination of Mercury Emissions (Field) (Modified US EPA Method 30B) Spectrometer - Atomic Absorption Detector Mercury (Hg)

EMS SOP-00110	Anions-Water (Modified Methods Manual for Chemical Analysis of Atmospheric Pollutants method 52121) Ion Chromatography - Conductivity Detector Chloride Fluoride Nitrate Sulfate
EMS SOP-00111	Ammonia – Water (Modified Methods Manual for Chemical Analysis of Atmospheric Pollutants method 52626] Ion Chromatography - Conductivity Detector Ammonia
EMS SOP-00112	Fixed Gases - Air (Modified Method 3, Alberta Stack Sampling Code, 1995, Publication Number: REF.89 and EPA 3C) GC/TCD CO CO_2 N_2 O_2
EMS SOP-00113	Formaldehyde – Water (Modified from Methods Manual for Chemical Analysis of Atmospheric Pollutants, method 12525) Colorimetric Formaldehyde
EMS SOP-00114	Hydrocarbons – Air (Modified AENV18] GC/FID Total Hydrocarbons as Methane
EMS SOP-00115	Total Particulates - Air Filter (Modified method 5, Determination of Particulate Emissions from Stationary Sources, Alberta Stack Sampling Code, 1995, Publication Number: REF.89] Gravimetric Particulates
EMS SOP-00116	Total/Trace Reduced Sulfur - Air (Field) [Modified from AENV.TRS.P&P-1 and AENV.TRS.SGP-1] GC/PID Carbon disulfide Carbonyl sulfide Dimethyl disulfide Dimethyl sulfide Hydrogen sulphide Methyl mercaptan

EMS SOP-00122	Chlorine and Chlorine Dioxide – Air (Field) [Modified Alberta Environment Stack Code, 1995, Publication Number REF 89] Iodometric Determination Chlorine Chlorine Dioxide

Soil/Solid

*AB SOP-00002	Moisture Content in Soil [Modified CCME Petroleum Hydrocarbons in Soil - Tier 1 Method Section 13] Gravimetric % Moisture
*AB SOP-00003	Analysis of PAH in Water, Soil, Oil and Leachates by GC/MS [Modified EPA 8270E, EPA 3540C, EPA 8270E] - Soils and water 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Acridine Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b, j) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Benzo(c)phenanthrene Benzo(e)pyrene Chrysene Dibenzo (a,h) anthracene Fluoranthene Fluorene Indeno (1,2,3 - cd) pyrene Naphthalene Perylene Phenanthrene Pyrene Quinoline
*AB SOP-00004	Determination of Electrolytic Conductivity by Manual Meter (Modified SM 2510B - Soils and waters Conductivity Meter (Manual) Conductivity
AB SOP-00005	Alkalinity Conductivity Fluoride and pH by PC-Titrate (Modified SM 2510 B, SM 4500 H+B, SM 2320 B, SM 4500-F C) - Soil & Waters PC Titrate Conductivity (25 °C) Alkalinity Fluoride pH Acidity
*AB SOP-00006	pH by Manual Meter (Modified from SM 4500-H+ B) pH Meter

	pH
*AB SOP-00007	Ammonia-Nitrogen by Konelab - Phenate colorimetric method (Modified SM4500-NH3 A&G) Colorimetric Ammonia Ammonia – Extraction
AB SOP-00008	TKN by Konelab (Modified EPA 351.1, EPA 351.2) Colorimetric Total Kjeldahl Nitrogen
AB SOP-00012	Total Organic Carbon and Organic Matter in Soil (Modified Methods Manual for Soil and Plant Analysis) Reflux – Titrimetric Organic Matter – Calculation Total Organic Carbon
AB SOP-00019	Calcium Carbonate Equivalence by pH (Modified SSMA 20.2) pH Meter Calcium Carbonate Equivalence (CCE)
AB SOP-00020	Chloride and Sulfate Analysis by Discrete Autoanalyzer (Modified SM 4500 Cl E & SM 4500 SO4 E) Chloride *Sulfate
AB SOP-00022	Particle Size Distribution by Sieve Analysis (Modified ASTM D6913) Gravimetric/SIEVE Grain size Particle size by sieve (Special)
AB SOP-00023	Nitrite and Nitrate by Ion Chromatography (Modified SM 4110 B) – Soil and Waters Ion Chromatography Nitrate Nitrite
AB SOP-00025	Ortho-phosphate by Konelab - Ascorbic Acid Reduction Method (Modified SM 4500-P, A and F) Colorimetric Auto Color Ortho-phosphate
*AB SOP-00026	Chloride, Sulphate and Bromide by Ion Chromatography (Modified SM 4110B] Ion Chromatography Chloride Sulfate

AB SOP-00030	PSA by Hydrometer - Texture (Sand, Silt, Clay and gravel) Analysis (Modified SSMA 55.3) Hydrometer % clay % gravel % sand % slit
*AB SOP-00033	Preparation of Saturation and Water-Soil Ratio Samples [Modified from SSMA Method 15.2] Gravimetric % Saturation
AB SOP-00039	Extraction and Analysis of BTEX/F1 and select Volatiles by HS/GC/MS/FID Water, Soil and Oil (BTEX: Modified EPA 8260D, GC/MS – HEADSPACE) (F1/PHC: Modified CCME Petroleum Hydrocarbons - Tier 1 Method and EPA5021A) (BTEX TCLP: EPA 1311) GC/MS - HEADSPACE 1,2,4-Trimethyl Benzene Benzene C5-C10 Ethylbenzene F1: C6-C10 Hexane m/p-xylene Methyl tert-butyl ether (MTBE) o-xylene Styrene Toluene
*AB SOP-00040	Analysis of Extractable Hydrocarbons in Water and Soils by GC/FID (Modified Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil – Tier 1 Method) Modified EPA 1617)- Sheen C6-C50 Hydrocarbons F2 (C10-C16 Hydrocarbons) F3 (C16-C34 Hydrocarbons) F3A (C16-C22 Hydrocarbons) F3B (C22-C50 Hydrocarbons) F4 (C34-C50 Hydrocarbons) Reached Baseline at C50 F4G-SG (Heavy Hydrocarbons-Grav) Total Extractables C10 to C30 Total Extractables C10 to C22 Total Extractables C23 to C60 F4 HTG (>C34 – High Temp GC) Total Petroleum Hydrocarbon Visible Sheen
*AB SOP-00042	Metals on Liquids and Solids by ICP/OES (Modified EPA 6010 D) ICP/OES Aluminum Barium Boron Calcium Chromium Iron Lithium Magnesium Manganese Phosphorus Potassium Silicon Sodium Strontium Sulfur Thorium
*AB SOP-00043	Metals Analysis on Soils and Waters Using ICPMS (Modified EPA 6020 B) - Soils and Waters

	[TCLP: EPA 1311] ICP/MS Aluminum, Antimony, Arsenic, Barium Beryllium, Bismuth, Boron, Cadmium Calcium, Chromium, Cobalt, Copper Iron, Lead, Lithium, Magnesium Manganese, Mercury, Molybdenum, Nickel Palladium, Potassium, Selenium, Silicon Silver, Sodium, Strontium, Sulphur Tellurium, Thallium, Tin, Titanium Tungsten, Uranium, Vanadium, Zinc Zirconium
AB SOP-00049	Particle Size Distribution by Hydrometer (Modified ASTM D422-63) Hydrometer Particle Size Distribution
AB SOP-00050	Dry Bulk Density and Wet Bulk Density 9Modified McKeague and MSSMA Section 2.21) Gravimetric Bulk Density
AB SOP-00052	Bromide by Ion Chromatography - UV Detection (Modified from SM 4110 B) Ion Chromatography/UV Detector Bromide
AB SOP-00056	Preparation and Analysis VOC -Water and Soil by HS/GC/MS (Modified from EPA8260D and EPA5021A) (VOC TCLP: EPA 1311) GC/MS (Headspace) 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane 1,1-Dichloroethane, 1,1-dichloroethylene 1,2 dibromoethane, 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene 1,2-dichlorobenzene, 1,2-dichloroethane 1,2-Dichloropropane, 1,3,5 Trichlorobenzene 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene 1,4-dichlorobenzene, Benzene Bromodichloromethane, Bromoform Bromomethane, Carbon Tetrachloride Chlorobenzene, Chlorodibromomethane Chloroethane, Chloroform Chloromethane, cis-1,2-Dichloroethylene

	cis-1,3-Dichloropropene Ethylbenzene Methyl methacrylate o-xylene Tetrachloroethylene trans-1,2-Dichloroethylene Trichloroethylene Vinyl Chloride	Dichloromethane m/p-xylene Methyl t-butyl ether Styrene Toluene trans-1,3-Dichloropropene Trichlorofluoromethane
AB SOP-00062	Flashpoint by Small Scale Closed Cup Tester (SetaFlash) (Modified ASTM D3828) Seta Flash Closed Cup Flashpoint	
AB SOP-00063	Hexavalent Chromium by Konelab (Modified SM 3500-Cr B) Colorimetric Hexavalent Chromium	
AB SOP-00067	Elemental Sulfur (Modified Canadian Journal of Soil Science, 65, Pages 811-813, 1985) Colour-Extraction Elemental Sulphur	
* AB SOP-00071	Electrical Conductivity by Manual Meter - On-Site Testing (Modified SM 2510 B) Conductivity Meter Conductivity (25 °C)	
* AB SOP-00073	Determination of Percent Moisture - On-Site Testing (Modified CCME PHC-CWS] Gravimetric % Moisture	
* AB SOP-00074	Determination of pH in Water and Soil by Manual Meter - On-Site Testing (Modified SM 4500H+ B) pH Meter pH	
* AB SOP-00075	Preparation of Saturation Samples - On-Site Testing (Modified from SSMA Method 15.2) Gravimetric % Saturation	
*AB SOP-00076	BTEX/F1 in Water and Soil by GC Headspace PID/FID - On-Site Testing (BTEX: Modified EPA 8021B] – GC/PID - Headspace (F1: CCME Hydrocarbons Tier 1, BCMOE Section D, BCMELP] - GC/FID – Headspace) Benzene	C6 o-xylene

	Ethylbenzene m/p-xylene O-xylene-C10 Toluene	F1:C6-C10 o-xylene Styrene Total C6-C10
*AB SOP-00077	Extractable Hydrocarbon in Water and Soil - On-Site Testing (Modified CCME hydrocarbons Analysis tier 1, BCMOE Section D, BCMELP] GC/FID - Direct Injection EPH (C10-C19) F2: C10-C16 F4: C34-C50	 EPH (C19-C32) F3: C16-C34 TEH (C10-C30)
*AB SOP-00078	Chloride Analysis by Hach DR2800 - On-Site Testing (Modified SM 4500-ClE) Colorimetric Chloride	
AB SOP-00080	Sulphide, Low level (Modified SM 4500-S2D, A, F) Colorimetric Sulphide	
AB SOP-00088	Phenolics-Automated 4-AAP Colorimetry (Modified SSMA Chapter 40 & EPA 9066) Colorimetric – Distillation Extraction Phenol	
AB SOP-00091	NO_2 and TON by Gallery Plus (Modified SM 4500-NO3-H) Nitrite Total Oxidized Nitrogen (TON)	
AB SOP-00093	Total Nitrogen by Konelab (Modified SM 4500-N C) – Soil and Water Colorimetric Total Nitrogen (water) Total Nitrogen (Dissolved, water) Total Nitrogen (Soluble, soil) Total Nitrogen (Available, soil)	
CAL SOP-00032	Spontaneous combustion (Self Heating) (Modified Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria. Sixth Revised edition. United Nations.2015 sections 33.3.1.3 and 33.3.1.6) Combustion Spontaneous Combustion	
CAL SOP-00054	Ethanolamines and DIPA by reversed-phase chromatography (amperometry) (Modified IC US6-0193-062014) – Soil and Water Diethanolamine (DEA) Methyldiethanolamine (MDEA) Monoethanolamine (MEA) Diisopropanolamine (DIPA)	

	Triethanolamine (TEA) – Water only 2-(2-Aminoethoxy)-ethanol (DGA) – Water only
CAL SOP-00093	Preparation and Analysis of Glycols and Sulfolane in Water, Soil and oil by GC-FID (Modified from EPA 8015D) GC/FID – Extraction Diethylene Glycol Ethylene Glycol Propylene Glycol Sulfolane Tetraethylene Glycol Triethylene Glycol
CAL SOP-00094	Herbicides (Modified EPA 8151A and EPA 8270E) GC/MS – Extraction 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) 2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) 2,4-Dichlorophenoxyacetic acid (2,4-D) 2,4-Dichlorophenoxybutyric acid (2,4-DB) 3,5-Dichlorobenzoic Acid Bentazon Bromoxynil Chloramben Dicamba Dichlorprop Diclofop-methyl Dinoseb (DNBP) MCPA MCPP Pentachlorophenol Picloram
CAL SOP-00096	Extraction and Analysis of OG and TPH in Water and Soil by FTIR (Modified SM 23 5520 C m) IR – Extraction Oil and Grease Total Petroleum Hydrocarbons
CAL SOP-00104	Preparation and Analysis of Extended VOC in Water and Soils by HS/GC/MS (Modified EPA 8260D, EPA 5021A &VOC TCLP: EPA 1311) GC/MS – HS/Extraction 1,2,3-trichloropropane 1,1-dichloropropene 1,2-dibromo-3-chloropropane 1,3-dichloropropane 2,2-dichloropropane 2-butanone (MEK) 2-chlorotoluene 2-hexanone 2-nitropropane 4-chlorotoluene 4-methyl-2-pentanone (MIBK) Acetone Acetonitrile Acrolein Acrylonitrile Bromobenzene Bromochloromethane Carbon disulphide Cyclohexane Cyclohexanone Dibromomethane Dichlorodifluoromethane

	Dicyclopentadiene	Ethyl acetate
	Ethyl ether	Ethyl methacrylate
	Hexachlorobutadiene	Hexane
	Iodomethane	Isopropylbenezene
	Naphthalene	n-Butylbenzene
	Nitrobenzene	n-Propylbenzene
	p-Isopropyltoluene	sec-Butylbenzene
	tert-Butylbenezene	
CAL SOP-00149	Polychlorinated Biphenyls (PCB) (Modified EPA 8082A) GC/ECD – Extraction	
	Aroclor 1016	Aroclor 1221
	Aroclor 1248	Aroclor 1254
	Aroclor 1268	Total PCB
CAL SOP-00164	Semi Volatile Phenols (Modified EPA 8270E) GC/MS – Extraction	
	2,3,4,5-tetrachlorophenol	2,3,4,6-tetrachlorophenol
	2,3,4-trichlorophenol	2,3,5,6-tetrachlorophenol
	2,3,5-trichlorophenol	2,3,6-trichlorophenol
	2,3-dichlorophenol	2,4,5-trichlorophenol
	2,4,6-trichlorophenol	2,4-dichlorophenol
	2,4-dimethylphenol	2,4-dinitrophenol
	2,5-dichlorophenol	2,6- dimethylphenol
	2,6-dichlorophenol	2-chlorophenol
	2-methylphenol	2-nitrophenol
	3&4-chlorophenol	3&4-methylphenol
	3,4,5-trichlorophenol	3,4-dichlorophenol
	3,4-dimethylphenol	3,5-dichlorophenol
	4,6-dinitro-2-methylphenol	4-chloro-3-methylphenol
	4-nitrophenol	Pentachlorophenol
	Phenol	
CAL SOP-00184	Aliphatic and Aromatic fractionation and analysis for >C10-C50 PHC (Modified from Atl RBCA m) GC/FID	
	>C10-C12 Aliphatic	>C10-C12 Aromatic
	>C12-C16 Aliphatic	>C12-C16 Aromatic
	>C16-C21 Aliphatic	>C16-C21 Aromatic
	>C21-C34 Aliphatic	>C21-C34 Aromatic
	>C34 Aliphatic (Up to C50)	>C34 Aromatic (Up to C50)
CAL SOP-00239	BC Extractable Petroleum Hydrocarbons in Water and Soil by GC/FID (Modified BCMOE EPH S 12/16) GC/FID	
	EPH: C10-C19	

	EPH: C19-C32
CAL SOP-00240	Fractionation for C6-C10 and BC method VPH by Headspace GC/FID/MS (Modified volatile HC in soils by GC/FID and EPA method 5021A, BC MELP VH; Atl. RBCA) GC/FID Benzene — C6-C8 C6-o-xylene — C8-C10 aromatic Ethylbenzene — Methyl-ter-butylether o-xylene — o-xylene-C10 Styrene — Toluene
CAL SOP-00243/CAL SOP-00263	Carbon, Nitrogen and Sulfur (Modified LECO Corporation Form No. 203-821-170,203-821-165 and Vario El Cube No AN-A-030609, Total Organic Carbon (TOC/FOC) in soil/sediment by combustion (PBM)] IR Combustion Carbon Nitrogen Organic Carbon Sulphur
CAL SOP-00250	Preparation and analysis of Alkylated PAH in soils and water (Modified SM 8270 E and ESTD-OR-20) GC/MS – Extraction 1-Methylnaphthalene — 2-Methylnaphthalene Acenaphthene — Acenaphthylene Acridine — Anthracene Benzo (a) anthracene — Benzo (a) pyrene Benzo (g,h,i) perylene — Benzo (k) fluoranthene Benzo (b&j) fluoranthene — Benzo(c)phenanthrene Benzo(e)pyrene — Biphenyl C1-Acenaphthene C1-Benzo(bjk)fluoranthene / Benzo[a]pyrene C1-Biphenyl — C1-Benzo(a) anthracene/ Chrysene C1-Dibenzothiopene — C2-Fluorene C2-Naphthalene — C2-Phenanthrene/ anthracene C2- Fluoranthene / Pyrene — C3-Benzo(a)anthracene / Chrysene C3-Dibenzothiophene — C3-Fluorene C3-Naphthalene — C3-Phenanthrene/ anthracene C3- Fluoranthene / Pyrene — C4- Benzo(a)anthracene / Chrysene

	C4-Dibenzothiophene		C4-Naphthalene	
	C4-Phenanthrene/ anthracene		Chrysene	
	Dibenzo (a,h) anthracene		Dibenzothiophene	
	Fluoranthene		Fluorene	
	Indeno (1,2,3 - cd) pyrene		Indeno (1,2,3-cd) fluoranthene	
	Naphthalene		Perylene	
	Phenanthrene		Pyrene	
	Quinoline		Retene	
CAL SOP-00251	Extraction and analysis of low level Sulfolane in water and soil by GCMS (Modified EPA 8270E) GC/MSD – Extraction Sulfolane			
CAL SOP-00264	Preparation and Analysis of Alcohol/Solvents (Water, soil, oil) by GCFID (Modified EPA 8015D) – GC/FID – Extraction			
	2-Methylphenol		3- Methylphenol	
	4- Methylphenol		Acetone (2-propanone)	
	Ethanol		Isobutanol	
	Isopropanol		***** Methanol	
	n-butanol		Pyridine	
CAL SOP-00265	ICP/MS Analysis for Low Level Metals (Modified EPA SW846 6020B) ICP/MS			
	Aluminum	Antimony	Arsenic	Barium
	Beryllium	Bismuth	Boron	Cadmium
	Calcium	Cesium	Chromium	Cobalt
	Copper	Iron	Lanthanum	Lead
	Lithium	Magnesium	Manganese	Mercury
	Molybdenum	Nickel	Phosphorus	Potassium
	Rubidium	Selenium	Silicon	Silver
	Sodium	Strontium	Sulphur	Tellurium
	Thallium	Thorium	Tin	Titanium
	Tungsten	Uranium	Vanadium	Zinc
	Zirconium			
CAL SOP-00266	Free Cyanide (Modified EPA 9016) Colorimetric- Distillation Free cyanide			
CAL SOP-00270	Determination of cyanide by automated colourimetry (Modified SM 23 4500-CN-,O) Colorimetric- Distillation Cyanide SAD Cyanide WAD			

CAL SOP-00275	Extraction and Analysis of Hydroxyphenols in Water and Soil by GCMS (Modified BC MOE Laboratory Manual and EPA SW 846 8270) 2-Hydroxyphenol (Catechol) 3-Hydroxyphenol (Resorcinol) 4-Hydroxyphenol (Hydroquinone)

Water (Microbiology)

AB SOP-00085	Determination of Iron-Related and Sulfate Reducing Bacteria using the BART Method (Modified Dbi Env Tech Verification of the Irb Bart Tester for the Detection and Evaluation of Iron Bacteria in Water and Dbi Enviro Tech Verification of the Srb Bart Tester for the Detection and Verification of Sulphate Reducing Bacteria in Water) BART™ Iron Related Bacteria (IRB) Sulfate Reducing Bacteria (SRB)
AB SOP-00089	Total and Fecal Coliforms by defined substrate technique (Modified SM 9223 A, B) Most Probable Number (Colilert) *Escherichia coli* (*E. coli*) Total Coliforms Fecal (Thermotolerant) Coliforms
CAL SOP-00012	Heterotrophic Plate Count (HPC) (Modified SM 9215 A, B) Pour Plate Heterotrophic Plate Count (HPC)

Number of Scope Listings: 117

Notes:

ISO/IEC 17025:2017: General Requirements for the Competence of Testing and Calibration Laboratories

MFHPB: Microbiological Foods Health Protection Branch, Health Canada

MFLP: Microbiological Food Laboratory Procedure, Health Canada

MLG: Food Safety and Inspection Services Microbiology Laboratory Guidebook, U.S. Department of Agriculture

SM: Standard Methods for Examination of Water and Wastewater, American Public Health Association (APHA)

EPA: Environment Protection Agency

TCLP: toxicity characteristic leaching procedure

AB SOP: Internal test method (Alberta)

CAL SOP: Internal test method (Calgary)

CCME: Canadian Council of Ministers of the Environment

* These test methods can be performed on-site as per RG-On-Site-Testing.

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

Elias Rafoul
Vice-President, Accreditation Services
Published on: 2021-04-22

Canada

Appendix 3-H: ALS (Burnaby) Scope of Accreditation

PEACE RIVER
HYDRO PARTNERS

CALA Scope of Accreditation

Laboratory Name: ALS Environmental (Vancouver)

Client ID: 1001719

Parent Institution: ALS Canada Ltd.

Address: 8081 Lougheed Highway, Suite 100, Burnaby, British Columbia, V5A 1W9

Contact: Ms. Helenita Franco

Email: quality.vancouver@alsglobal.com; David.Gurdibaniuk@alsglobal.com

Phone: (604) 253-4188

Fax: (604) 253-6700

Standard: Conforms with requirements of ISO/IEC 17025:2017

Clients Served: All Interested Parties

Revised On: 01/07/2022

Valid To: 09/18/2023

001 - Alkalinity

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: TITRIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1053

Method Reference	Modified From	Analytical Method	Preparation Method
SM 2320 B	True	True	False

Parameter	Accredited
Alkalinity (pH 4.5)	Yes
Alkalinity (pH 8.3) (Phenolphthalein Alkalinity)	Yes
Bicarbonate Alkalinity	Yes
Carbonate Alkalinity	Yes
Hydroxide Alkalinity	Yes

004 - Conductivity

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: CONDUCTIVITY METER

Preparation Method:

Lab Method ID(s): VA-TM-1053

Method Reference	Modified From	Analytical Method	Preparation Method
SM 2510 B	True	True	False

Parameter	Accredited
Conductivity (25C)	Yes

008 - Reactive Silica

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLORIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1018

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500-SIO2 D	True	True	False

Parameter	Accredited
Reactive Silica	Yes

014 - Thiocyanate

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLORIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1029

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500-CN- M	True	True	False

Parameter	Accredited
Thiocyanate	Yes

015 - Colour

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLORIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1004

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
SM 2120 C	True	True	False

Parameter	Accredited
Apparent Colour	Yes
True Colour	Yes

016 - Solids

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GRAVIMETRIC

Preparation Method:

Lab Method ID(s): NA-TM-1004, NA-TM-1008, VA-TM-1050

Method Reference	Modified From	Analytical Method	Preparation Method
SM 2540 B	True	True	False
SM 2540 C	True	True	False
SM 2540 D	True	True	False
SM 2540 E	True	True	False

Parameter	Accredited
Fixed Suspended Solids	Yes
Total Dissolved Solids	Yes
Total Solids (TS)	Yes
Total Suspended Solids	Yes
Volatile Suspended Solids	Yes

018 - pH

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: PH METER

Preparation Method:

Lab Method ID(s): VA-TM-1053

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500-H+ B	True	True	False

Parameter	Accredited
pH	Yes

020 - Turbidity

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: TURBIDIMETRIC

Preparation Method:

Lab Method ID(s): NA-TM-1007

Method Reference	Modified From	Analytical Method	Preparation Method
SM 2130 B	True	True	False

Parameter	Accredited
Turbidity	Yes

026 - Anions

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: ION CHROMATOGRAPHY (IC)

Preparation Method:

Lab Method ID(s): NA-TM-1001

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 300.1	True	True	False

Parameter	Accredited
Bromide	Yes
Chloride	Yes
Fluoride	Yes
Nitrate	Yes
Nitrate plus Nitrite	Yes
Nitrite	Yes
Sulfate	Yes

027 - Biochemical Oxygen Demand (BOD)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: DISSOLVED OXYGEN METER (DO)

Preparation Method:

Lab Method ID(s): VA-TM-1032

Method Reference	Modified From	Analytical Method	Preparation Method
SM 5210 B	True	True	False

Parameter	Accredited
BOD (5 day)	Yes
CBOD (5 day)	Yes
Soluble Biochemical Oxygen Demand (SBOD)	Yes

028 - Chemical Oxygen Demand (COD)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLORIMETRIC

Preparation Method: DIGESTION

Lab Method ID(s): VA-TM-1033

Method Reference	Modified From	Analytical Method	Preparation Method
SM 5220 D	True	True	False

Parameter	Accredited
COD	Yes

029 - Fecal (Thermotolerant) Coliforms

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MOST PROBABLE NUMBER (MPN)

Preparation Method:

Lab Method ID(s): VA-TM-1200

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9221 E	True	True	False

Parameter	Accredited
Fecal (Thermotolerant) Coliforms	Yes

030 - Fecal (Thermotolerant) Coliforms

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MEMBRANE FILTRATION (M-FC)

Preparation Method:

Lab Method ID(s): VA-TM-1201

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9222 D	True	True	False

Parameter	Accredited
Fecal (Thermotolerant) Coliforms	Yes

031 - Total Metals

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: ICP/MS

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1002, NA-TP-2001, NA-TP-2007

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 200.2	False	True	False
EPA 6020B	True	True	False

Parameter	Accredited
Aluminum	Yes
Antimony	Yes
Arsenic	Yes
Barium	Yes
Beryllium	Yes
Bismuth	Yes
Boron	Yes
Cadmium	Yes
Calcium	Yes
Cerium	Yes
Cesium	Yes
Chromium	Yes
Cobalt	Yes
Copper	Yes
Dysprosium	Yes
Erbium	Yes
Europium	Yes
Gadolinium	Yes
Gallium	Yes
Gold	Yes
Hafnium	Yes
Holmium	Yes
Indium	Yes
Iridium	Yes
Iron	Yes
Lanthanum	Yes
Lead	Yes
Lithium	Yes
Magnesium	Yes
Manganese	Yes
Molybdenum	Yes
Neodymium	Yes
Nickel	Yes
Niobium	Yes
Palladium	Yes
Phosphorus	Yes
Platinum	Yes
Potassium	Yes
Praseodymium	Yes
Rhenium	Yes
Rhodium	Yes
Rubidium	Yes
Ruthenium	Yes
Samarium	Yes
Scandium	Yes
Selenium	Yes
Silicon	Yes
Silver	Yes

Parameter	Accredited
Sodium	Yes
Strontium	Yes
Sulphur (Sulfur)	Yes
Tantalum	Yes
Tellurium	Yes
Terbium	Yes
Thallium	Yes
Thorium	Yes
Thulium	Yes
Tin	Yes
Titanium	Yes
Tungsten	Yes
Uranium	Yes
Vanadium	Yes
Ytterbium	Yes
Yttrium	Yes
Zinc	Yes
Zirconium	Yes

032 - Dissolved Metals

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: ICP/MS

Preparation Method: FILTRATION

Lab Method ID(s): NA-TM-1002, NA-TP-2002, NA-TP-2007

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 6020B	True	True	False
SM 3030 B	True	True	False

Parameter	Accredited
Aluminum	Yes
Antimony	Yes
Arsenic	Yes
Barium	Yes
Beryllium	Yes
Bismuth	Yes
Boron	Yes
Cadmium	Yes
Calcium	Yes
Cerium	Yes
Cesium	Yes
Chromium	Yes
Cobalt	Yes
Copper	Yes
Dysprosium	Yes
Erbium	Yes
Europium	Yes
Gadolinium	Yes
Gallium	Yes
Gold	Yes
Hafnium	Yes
Holmium	Yes
Indium	Yes
Iridium	Yes
Iron	Yes
Lanthanum	Yes
Lead	Yes
Lithium	Yes
Magnesium	Yes
Manganese	Yes
Molybdenum	Yes
Neodymium	Yes
Nickel	Yes
Niobium	Yes
Palladium	Yes
Phosphorus	Yes
Platinum	Yes
Potassium	Yes
Praseodymium	Yes
Rhenium	Yes
Rhodium	Yes
Rubidium	Yes
Ruthenium	Yes
Samarium	Yes
Scandium	Yes
Selenium	Yes
Silicon	Yes
Silver	Yes
Sodium	Yes
Strontium	Yes
Sulphur (Sulfur)	Yes

Parameter	Accredited
Tantalum	Yes
Tellurium	Yes
Terbium	Yes
Thallium	Yes
Thorium	Yes
Thulium	Yes
Tin	Yes
Titanium	Yes
Tungsten	Yes
Uranium	Yes
Vanadium	Yes
Ytterbium	Yes
Yttrium	Yes
Zinc	Yes
Zirconium	Yes

035 - Total Particulates

Field of Accreditation: Environmental

Matrix: Air [Filter, Particulate]

Analytical Method: GRAVIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1041

Method Reference	Modified From	Analytical Method	Preparation Method
BC WORKERS COMPENSATION BOARD STANDARDS (BCWCB) 1150	True	True	False
BC MOE LABORATORY MANUAL	False	True	False

Parameter	Accredited
Respirable Dust	Yes
Total Particulate Matter	Yes

059 - Phenols

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/MS

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1101, VA-TP-2113

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
EPA 3510C	True	True	False
EPA 8270E	True	True	False

Parameter	Accredited
2,3,4,5-Tetrachlorophenol	Yes
2,3,4,6-Tetrachlorophenol	Yes
2,3,4-Trichlorophenol	Yes
2,3,5,6-Tetrachlorophenol	Yes
2,3,5-Trichlorophenol	Yes
2,3,6-Trichlorophenol	Yes
2,3-Dichlorophenol	Yes
2,4,5-Trichlorophenol	Yes
2,4,6-Trichlorophenol	Yes
2,4-Dichlorophenol	Yes
2,4-Dimethylphenol	Yes
2,6-Dichlorophenol	Yes
2-Chlorophenol	Yes
2-Methylphenol (o-Cresol)	Yes
3,4,5-Trichlorophenol	Yes
3,4-Dichlorophenol	Yes
3,5-Dichlorophenol	Yes
3-Chlorophenol	Yes
3-Methylphenol (m-Cresol)	Yes
4-Chloro-3-methylphenol	Yes
4-Chlorophenol	Yes
4-Methylphenol (p-Cresol)	Yes
Pentachlorophenol	Yes
Phenol	Yes

061 - Oil and Grease

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GRAVIMETRIC

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1107

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
EPA 1664	True	True	False

Parameter	Accredited
Mineral Oil and Grease	Yes
Total Oil and Grease	Yes

071 - Phenols

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/MS

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1122, VA-TP-2113

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3570	True	True	False
EPA 8270E	True	True	False
KNAPP 1979	True	True	False

Parameter	Accredited
2,3,4,5-Tetrachlorophenol	Yes
2,3,4,6-Tetrachlorophenol	Yes
2,3,4-Trichlorophenol	Yes
2,3,5,6-Tetrachlorophenol	Yes
2,3,5-Trichlorophenol	Yes
2,3,6-Trichlorophenol	Yes
2,3-Dichlorophenol	Yes
2,4,5-Trichlorophenol	Yes
2,4,6-Trichlorophenol	Yes
2,4-Dichlorophenol + 2,5-Dichlorophenol	Yes
2,4-Dimethylphenol	Yes
2,6-Dichlorophenol	Yes
2-Chlorophenol	Yes
2-Methylphenol (o-Cresol)	Yes
3,4,5-Trichlorophenol	Yes
3,4-Dichlorophenol	Yes
3,5-Dichlorophenol	Yes
3-Chlorophenol	Yes
3-Methylphenol (m-Cresol)	Yes
4-Chloro-3-methylphenol	Yes
4-Chlorophenol	Yes
4-Methylphenol (p-Cresol)	Yes
Pentachlorophenol	Yes
Phenol	Yes

080 - Total Polychlorinated Biphenyls (PCB)

Field of Accreditation: Environmental

Matrix: Oil

Analytical Method: GC/ECD

Preparation Method:

Lab Method ID(s): VA-TM-1118, VA-TP-2116

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3620C	True	True	False
EPA 3660B	True	True	False
EPA 3665A	True	True	False
EPA 8082A	True	True	False
ASTM D4059	True	True	False

Parameter	Accredited
Aroclor 1016	Yes
Aroclor 1221	Yes
Aroclor 1232	Yes
Aroclor 1242	Yes
Aroclor 1248	Yes
Aroclor 1254	Yes
Aroclor 1260	Yes
Aroclor 1262	Yes
Aroclor 1268	Yes
Total PCB	Yes

089 - Moisture

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GRAVIMETRIC

Preparation Method:

Lab Method ID(s): NA-TM-1200

Method Reference	Modified From	Analytical Method	Preparation Method
CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD	False	True	False

Parameter	Accredited
Percent Moisture	Yes

090 - Moisture

Field of Accreditation: Environmental

Matrix: Tissue

Analytical Method: GRAVIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1087

Method Reference	Modified From	Analytical Method	Preparation Method
PUGET SOUND PROTOCOLS	True	True	False

Parameter	Accredited
Percent Moisture	Yes

091 - Carbon

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: INFRARED SPECTROSCOPY (IR)

Preparation Method: COMBUSTION

Lab Method ID(s): VA-TM-1037

Method Reference	Modified From	Analytical Method	Preparation Method
SM 5310 B	True	True	False

Parameter	Accredited
Inorganic Carbon	Yes
Organic Carbon	Yes
Total Carbon (TC)	Yes

100 - Total Metals

Field of Accreditation: Environmental

Matrix: Tissue

Analytical Method: ICP/MS

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1002, NA-TP-2006, NA-TP-2007

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 200.3	True	True	False
EPA 6020A	True	True	False
BC MOE LABORATORY MANUAL	False	True	False

Parameter	Accredited
Aluminum	Yes
Antimony	Yes
Arsenic	Yes
Barium	Yes
Beryllium	Yes
Bismuth	Yes
Boron	Yes
Cadmium	Yes
Calcium	Yes
Cesium	Yes
Chromium	Yes
Cobalt	Yes
Copper	Yes
Iron	Yes
Lead	Yes
Lithium	Yes
Magnesium	Yes
Manganese	Yes
Molybdenum	Yes
Neodymium	Yes
Nickel	Yes
Phosphorus	Yes
Potassium	Yes
Rhodium	Yes
Rubidium	Yes
Ruthenium	Yes
Samarium	Yes
Selenium	Yes
Silver	Yes
Sodium	Yes
Strontium	Yes
Sulphur (Sulfur)	Yes
Tellurium	Yes
Thallium	Yes
Tin	Yes
Titanium	Yes
Uranium	Yes
Vanadium	Yes
Zinc	Yes
Zirconium	Yes

112 - Total Polychlorinated Biphenyls (PCB)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/ECD

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1119, VA-TP-2116

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3570	True	True	False
EPA 3620C	True	True	False
EPA 3660B	True	True	False
EPA 3665A	True	True	False
EPA 8082A	True	True	False

Parameter	Accredited
Aroclor 1016	Yes
Aroclor 1221	Yes

Parameter	Accredited
Aroclor 1232	Yes
Aroclor 1242	Yes
Aroclor 1248	Yes
Aroclor 1254	Yes
Aroclor 1260	Yes
Aroclor 1262	Yes
Aroclor 1268	Yes
Total PCB	Yes

115 - Total Polychlorinated Biphenyls (PCB)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/ECD

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1115, VA-TP-2116

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3510C	True	True	False
EPA 3620C	True	True	False
EPA 3660B	True	True	False
EPA 3665A	True	True	False
EPA 8082A	True	True	False

Parameter	Accredited
Aroclor 1016	Yes
Aroclor 1221	Yes
Aroclor 1232	Yes
Aroclor 1242	Yes
Aroclor 1248	Yes
Aroclor 1254	Yes
Aroclor 1260	Yes
Aroclor 1262	Yes
Aroclor 1268	Yes
Total PCB	Yes

120 - pH

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: METER

Preparation Method: SATURATION EXTRACTION

Lab Method ID(s): NA-TP-2008, VA-TM-1078

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500-H+ B	True	True	False
SOIL SAMPLING & METHODS OF ANALYSIS CHAPTER 15	True	True	False

Parameter	Accredited
pH	Yes

123 - Waste Oil

Field of Accreditation: Environmental

Matrix: Solids

Analytical Method: GRAVIMETRIC

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1111

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	False	True	False

Parameter	Accredited
Waste Oil Content	Yes

126 - Heterotrophic Plate Count (HPC)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: POUR PLATE (PCA)

Preparation Method:

Lab Method ID(s): NA-TM-1301

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9215 B	True	True	False

Parameter	Accredited
Heterotrophic Plate Count (HPC)	Yes

136 - Mercury

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLD VAPOUR ATOMIC FLUORESCENCE SPECTROSCOPY (CVAFS)

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1005, NA-TP-2002, VA-TP-2068

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1631E	True	True	False

Parameter	Accredited
Mercury	Yes

142 - Total Coliforms

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MOST PROBABLE NUMBER (MPN)

Preparation Method:

Lab Method ID(s): VA-TM-1200

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9221 B	True	True	False

Parameter	Accredited
Total Coliforms	Yes

143 - Total Coliforms

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MEMBRANE FILTRATION (M-ENDO)

Preparation Method:

Lab Method ID(s): VA-TM-1201

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9222 B	True	True	False

Parameter	Accredited
Total Coliforms	Yes

145 - Coliforms

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MOST PROBABLE NUMBER (MPN)

Preparation Method:

Lab Method ID(s): NA-TM-1300

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9223 B	True	True	False

Parameter	Accredited
Escherichia coli	Yes
Fecal (Thermotolerant) Coliforms	Yes
Total Coliforms	Yes

147 - Conductivity

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: METER

Preparation Method: SATURATION EXTRACTION

Lab Method ID(s): NA-TP-2008, VA-TM-1053

Method Reference	Modified From	Analytical Method	Preparation Method
SM 2510 B	True	True	False
SOIL SAMPLING & METHODS OF ANALYSIS CHAPTER 15	True	True	False

Parameter	Accredited
Conductivity	Yes

148 - Anions

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: ION CHROMATOGRAPHY (IC)

Preparation Method: SATURATED PASTE

Lab Method ID(s): NA-TM-1001, NA-TP-2008

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 300.1	True	True	False
SM 4110 B	True	True	False
SOIL SAMPLING & METHODS OF ANALYSIS CHAPTER 15	True	True	False

Parameter	Accredited
Chloride	Yes
Fluoride	Yes
Nitrate-N	Yes
Nitrite (NO2)	Yes
Sulphate	Yes

149 - Percent Saturation

Field of Accreditation: Environmental

Matrix: Solids [Saturated Paste]

Analytical Method: GRAVIMETRIC

Preparation Method: SATURATED PASTE

Lab Method ID(s): NA-TP-2008

Method Reference	Modified From	Analytical Method	Preparation Method
SOIL SAMPLING & METHODS OF ANALYSIS CHAPTER 15	True	True	False

Parameter	Accredited
Percent Saturation	Yes

152 - Metals

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: ICP/MS

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1002, NA-TP-2004, NA-TP-2007

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL, SALM	True	False	True
EPA 200.2	True	True	False
EPA 6020B	True	True	False

Parameter	Accredited
Aluminum	Yes
Antimony	Yes
Arsenic	Yes
Barium	Yes
Beryllium	Yes
Bismuth	Yes
Boron	Yes
Cadmium	Yes
Calcium	Yes
Chromium	Yes
Cobalt	Yes
Copper	Yes
Iron	Yes
Lead	Yes
Lithium	Yes
Magnesium	Yes
Manganese	Yes
Molybdenum	Yes
Neodymium	Yes
Nickel	Yes
Phosphorus	Yes
Potassium	Yes
Rhodium	Yes
Ruthenium	Yes
Samarium	Yes
Selenium	Yes
Silver	Yes
Sodium	Yes
Strontium	Yes
Sulphur (Sulfur)	Yes
Tellurium	Yes
Thallium	Yes
Thorium	Yes
Tin	Yes
Titanium	Yes
Tungsten	Yes
Uranium	Yes
Vanadium	Yes
Zinc	Yes
Zirconium	Yes

155 - Glycols

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/FID

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1113

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 8015C	True	True	False

Parameter	Accredited
Diethylene glycol	Yes
Ethylene glycol	Yes
Propylene glycol	Yes
Triethylene glycol	Yes

156 - Glycols

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/FID

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1113

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 8015B	True	True	False

Parameter	Accredited
Diethylene glycol	Yes
Ethylene glycol	Yes
Propylene glycol	Yes
Triethylene glycol	Yes

169 - pH

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: METER

Preparation Method: FIXED RATIO EXTRACTION

Lab Method ID(s): VA-TM-1078

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
SM 4500-H+ B	True	True	False

Parameter	Accredited
pH	Yes

172 - Methyl mercury

Field of Accreditation: Environmental

Matrix: Tissue

Analytical Method: GC/CVAFS-PURGE AND TRAP

Preparation Method: DIGESTION

Lab Method ID(s): VA-TM-1062

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1630	True	True	False

Parameter	Accredited
Methyl mercury	Yes

173 - Methyl mercury

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/CVAFS-PURGE AND TRAP

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1062

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1630	True	True	False

Parameter	Accredited
Methyl mercury	Yes

179 - Phosphorus

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLORIMETRIC

Preparation Method: DIGESTION

Lab Method ID(s): VA-TM-1025, VA-TM-1054, VA-TP-2009, VA-WI-3046

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500-P B	True	True	False
SM 4500-P E	True	True	False

Parameter	Accredited
Phosphate	Yes
Total Dissolved Phosphorus	Yes
Total Phosphorus	Yes

184 - Extractable Hydrocarbons

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/FID

Preparation Method: COLD SHAKE EXTRACTION

Lab Method ID(s): NA-TM-1100, NA-TP-2106

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
EPA 3570	True	True	False

Parameter	Accredited
Extractable Petroleum Hydrocarbons (EPH): C10-C19	Yes
Extractable Petroleum Hydrocarbons (EPH): C10-C19 (sg)	Yes
Extractable Petroleum Hydrocarbons (EPH): C19-C32	Yes
Extractable Petroleum Hydrocarbons (EPH): C19-C32 (sg)	Yes

185 - Polycyclic Aromatic Hydrocarbons (PAH)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/MS

Preparation Method: COLD SHAKE EXTRACTION

Lab Method ID(s): NA-TM-1100, NA-TP-2107

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3570	True	True	False
EPA 8270E	True	True	False

Parameter	Accredited
2-Methylnaphthalene	Yes
Acenaphthene	Yes
Acenaphthylene	Yes
Anthracene	Yes
Benzo(a)anthracene	Yes
Benzo(a)pyrene	Yes
Benzo(b,j)fluoranthene	Yes
Benzo(g,h,i)perylene	Yes
Benzo(k)fluoranthene	Yes
Chrysene	Yes

Parameter	Accredited
Dibenzo(a,h)anthracene	Yes
Fluoranthene	Yes
Fluorene	Yes
Indeno(1,2,3 - cd)pyrene	Yes
Naphthalene	Yes
Phenanthrene	Yes
Pyrene	Yes
Quinoline	Yes

186 - Enterococci

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MEMBRANE FILTRATION (MENTEROCOCCUS)

Preparation Method:

Lab Method ID(s): VA-TM-1203

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9230 C	True	True	False

Parameter	Accredited
Enterococci	Yes

187 - Pseudomonas aeruginosa

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MEMBRANE FILTRATION (MPAC)

Preparation Method:

Lab Method ID(s): VA-TM-1204

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9213 E	True	True	False

Parameter	Accredited
Pseudomonas aeruginosa (P. aerigunosa)	Yes

189 - Petroleum Hydrocarbons (PHC)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/FID

Preparation Method: TUMBLER EXTRACTION

Lab Method ID(s): NA-TM-1100, NA-TP-2100

Method Reference	Modified From	Analytical Method	Preparation Method
ALBERTA ENVIRONMENT INTERPRETATION, SEPT 2003	True	True	False
CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD (DEC 2000 NO. 1310)	True	True	False

Parameter	Accredited
F2: C10-C16	Yes
F3: C16-C34	Yes
F4: C34-C50	Yes

190 - Petroleum Hydrocarbons (PHC)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GRAVIMETRIC

Preparation Method: TUMBLER EXTRACTION

Lab Method ID(s): NA-TM-1100

Method Reference	Modified From	Analytical Method	Preparation Method
ALBERTA ENVIRONMENT INTERPRETATION, SEPT 2003	True	True	False
CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD (DEC 2000 NO. 1310)	True	True	False

Parameter	Accredited
F4: Gravimetric	Yes
F4G-SG: Gravimetric Heavy Hydrocarbons - Silica	Yes

192 - Methyl mercury

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/CVAFS-PURGE AND TRAP

Preparation Method: DISTILLATION

Lab Method ID(s): VA-TM-1062

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1630	True	True	False

Parameter	Accredited
Methyl mercury	Yes

196 - Volatile Organic Compounds (VOC)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/MS-HEADSPACE

Preparation Method:

Lab Method ID(s): NA-TM-1102, NA-TP-2102

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 5021A	True	True	False
EPA 8260C	True	True	False

Parameter	Accredited
1,1,1,2-Tetrachloroethane	Yes
1,1,1-Trichloroethane	Yes
1,1,2,2-Tetrachloroethane	Yes
1,1,2-Trichloroethane	Yes
1,1-Dichloroethane	Yes
1,1-Dichloroethylene	Yes
1,2,4-Trimethylbenzene	Yes
1,2-Dichlorobenzene	Yes
1,2-Dichloroethane	Yes
1,2-Dichloropropane	Yes
1,3,5-Trimethylbenzene	Yes
1,3-Dichlorobenzene	Yes
1,4-Dichlorobenzene	Yes
4-Isopropyltoluene (p-Cymene)	Yes
Acetone (2-Propanone)	Yes
Benzene	Yes
Bromodichloromethane	Yes
Bromoform	Yes
Carbon tetrachloride	Yes
Chlorobenzene	Yes
Chlorodibromomethane	Yes
Chloroethane (Ethyl chloride)	Yes
Chloroform	Yes
Chloromethane (Methyl chloride)	Yes
cis-1,2-Dichloroethylene	Yes
cis-1,3-Dichloropropene	Yes
Dichloromethane	Yes
Ethylbenzene	Yes
Ethylene Dibromide	Yes
Isopropylbenzene (Cumene)	Yes
m,p-Xylene	Yes
Methyl ethyl ketone	Yes
Methyl isobutyl ketone (MIBK)	Yes
Methyl t-butyl ether	Yes
Naphthalene	Yes
n-Propylbenzene	Yes
o-Xylene	Yes
Styrene	Yes
Tetrachloroethylene	Yes
Toluene	Yes
trans-1,2-Dichloroethylene	Yes
trans-1,3-Dichloropropene	Yes
Trichloroethylene	Yes
Trichlorofluoromethane	Yes
Vinyl chloride	Yes

197 - Volatile Hydrocarbons (VH)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/FID-HEADSPACE

Preparation Method:

Lab Method ID(s): NA-TM-1102

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD	True	True	False
EPA 5021A	True	True	False

Parameter	Accredited
F1: C6-C10	Yes
Volatile Hydrocarbons (VH): C6-C10	Yes

201 - Volatile Organic Compounds (VOC)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/MS-HEADSPACE

Preparation Method:

Lab Method ID(s): NA-TM-1102, NA-TP-2102

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 5021A	True	True	False
EPA 8260C	True	True	False

Parameter	Accredited
1,1,1,2-Tetrachloroethane	Yes
1,1,1-Trichloroethane	Yes
1,1,2,2-Tetrachloroethane	Yes
1,1,2-Trichloroethane	Yes
1,1-Dichloroethane	Yes
1,1-Dichloroethylene	Yes
1,2,4-Trimethylbenzene	Yes
1,2-Dichlorobenzene	Yes
1,2-Dichloroethane	Yes
1,2-Dichloropropane	Yes

Parameter	Accredited
1,3,5-Trimethylbenzene	Yes
1,3-Dichlorobenzene	Yes
1,4-Dichlorobenzene	Yes
4-Isopropylbenzene	Yes
Benzene	Yes
Bromodichloromethane	Yes
Bromoform	Yes
Carbon tetrachloride	Yes
Chlorobenzene	Yes
Chlorodibromomethane	Yes
Chloroethane (Ethyl chloride)	Yes
Chloroethene (Vinyl chloride)	Yes
Chloroform	Yes
Chloromethane (Methyl chloride)	Yes
cis-1,2-Dichloroethylene	Yes
cis-1,3-Dichloropropene	Yes
Dichloromethane	Yes
Ethylbenzene	Yes
Ethylene Dibromide	Yes
Isopropylbenzene (Cumene)	Yes
m,p-Xylene	Yes
Methyl t-butyl ether	Yes
Naphthalene	Yes
n-Propylbenzene	Yes
o-Xylene	Yes
Styrene	Yes
Tetrachloroethylene	Yes
Toluene	Yes
trans-1,2-Dichloroethylene	Yes
trans-1,3-Dichloropropene	Yes
Trichloroethylene	Yes
Trichlorofluoromethane	Yes

202 - Volatile Hydrocarbons (VH)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GC/FID-HEADSPACE

Preparation Method:

Lab Method ID(s): NA-TM-1102, NA-TP-2102

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD	True	True	False
EPA 5021A	True	True	False

Parameter	Accredited
F1: C6-C10	Yes
VH: C6-C10	Yes

206 - Volatile Organic Compounds (VOC)

Field of Accreditation: Environmental

Matrix: Air

Analytical Method: GC/MS

Preparation Method:

Lab Method ID(s): VA-TM-1109

Method Reference	Modified From	Analytical Method	Preparation Method
EPA TO-17	True	True	False
BC MOE LABORATORY MANUAL	False	True	False

Parameter	Accredited
1,1,1,2-Tetrachloroethane	Yes
1,1,1-Trichloroethane	Yes
1,1,2,2-Tetrachloroethane	Yes
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113, Freon 113)	Yes
1,1,2-Trichloroethane	Yes
1,1-Dichloroethane	Yes
1,1-Dichloroethene (1,1-Dichloroethylene)	Yes
1,1-Dichloropropene	Yes
1,2,3-Trichlorobenzene	Yes
1,2,3-Trichloropropane	Yes
1,2,4-Trichlorobenzene	Yes
1,2,4-Trimethylbenzene	Yes
1,2-Dibromo-3-chloropropane (DBCP)	Yes
1,2-Dibromoethane (Ethylene dibromide)	Yes
1,2-Dichlorobenzene	Yes
1,2-Dichloroethane	Yes
1,2-Dichloropropane	Yes
1,3,5-Trimethylbenzene	Yes
1,3-Butadiene	Yes
1,3-Dichlorobenzene	Yes
1,3-Dichloropropane	Yes
1,4-Dichlorobenzene	Yes
2,2-Dichloropropane	Yes

Parameter	Accredited
2-Butanone (Methyl ethyl ketone, MEK)	Yes
2-Chlorophenol	Yes
2-Chlorotoluene	Yes
2-Hexanone (Methyl butyl ketone, MBK)	Yes
2-Propanol (Isopropyl alcohol)	Yes
4-Chlorotoluene (p-Chlorotoluene)	Yes
4-Isopropyltoluene (p-Cymene)	Yes
4-Methyl-2-pentanone (MIBK)	Yes
Acetone (2-Propanone)	Yes
Benzene	Yes
Biphenyl (1,1-Biphenyl)	Yes
Bromobenzene	Yes
Bromochloromethane	Yes
Bromodichloromethane	Yes
Bromoform	Yes
Bromomethane	Yes
Butylbenzene (n-Butylbenzene)	Yes
Carbon disulfide	Yes
Carbon tetrachloride	Yes
Chlorobenzene	Yes
Chloroethane (Ethyl chloride)	Yes
Chloroethene (Vinyl chloride)	Yes
Chloroform	Yes
Chloromethane (Methyl chloride)	Yes
cis-1,2-Dichloroethylene	Yes
cis-1,3-Dichloropropene	Yes
Cyclohexane	Yes
Decane	Yes
Dibromochloromethane	Yes
Dibromomethane	Yes
Dichlorodifluoromethane (CFC-12, Freon 12)	Yes
Dichloromethane (Methylene Chloride)	Yes
Ethyl acetate	Yes
Ethylbenzene	Yes
Heptane (n-Heptane)	Yes
Hexachlorobutadiene (1,1,2,3,4,4-Hexachloro-1,3-butadiene)	Yes
Hexane (n-Hexane)	Yes
Isopropylbenzene (Cumene)	Yes
m,p-Xylene	Yes
Methyl tert-butyl ether (MTBE)	Yes
Methylcyclohexane	Yes
Naphthalene	Yes
n-Octane	Yes
n-Propylbenzene	Yes
o-Xylene	Yes
sec-Butylbenzene ((1-Methylpropyl)benzene)	Yes
Styrene	Yes
tert-Butylbenzene	Yes
Tetrachloroethylene	Yes
Toluene	Yes
trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene)	Yes
trans-1,3-Dichloropropene	Yes
Trichloroethylene	Yes
Trichlorofluoromethane (CFC-11, Freon 11)	Yes

207 - Volatile Organic Compounds (VOC)

Field of Accreditation: Environmental

Matrix: Air

Analytical Method: GC/FID

Preparation Method:

Lab Method ID(s): VA-TM-1109

Method Reference	Modified From	Analytical Method	Preparation Method
EPA TO-17	True	True	False
BC MOE LABORATORY MANUAL	False	True	False

Parameter	Accredited
F1: C6-C10	Yes
F2: C10-C16	Yes
Total Volatile Organic Compounds (TVOC): >C10-C12	Yes
Total Volatile Organic Compounds (TVOC): >C12-C16	Yes
Total Volatile Organic Compounds (TVOC): >C6-C8	Yes
Total Volatile Organic Compounds (TVOC): >C8-C10	Yes
Volatile Hydrocarbons (VH): C6-C13	Yes

208 - Ammonia

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: FLUOROMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1048

Method Reference	Modified From	Analytical Method	Preparation Method

Method Reference	Modified From	Analytical Method	Preparation Method
JOURNAL OF ENVIRONMENTAL MONITORING (2005) SECTION 7, P. 37-42	True	True	False

Parameter	Accredited
Ammonia	Yes

209 - Cyanide

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: AUTOMATED COLORIMETRIC

Preparation Method: DISTILLATION

Lab Method ID(s): NA-TM-1003

Method Reference	Modified From	Analytical Method	Preparation Method
ISO 14403	True	True	False
SM 4500-CN- I	True	True	False

Parameter	Accredited
Cyanide (SAD)	Yes
Cyanide (WAD)	Yes

210 - Cyanide

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: AUTOMATED COLORIMETRIC-GAS DIFFUSION

Preparation Method:

Lab Method ID(s): NA-TM-1003

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D7237	True	True	False
ISO 14403-2	True	True	False

Parameter	Accredited
Free Cyanide	Yes

211 - Total Kjeldahl Nitrogen (TKN)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: FLUOROMETRIC

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1006, VA-TM-1044

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500-NORG D	True	True	False

Parameter	Accredited
Dissolved Kjeldahl Nitrogen	Yes
Total Kjeldahl Nitrogen	Yes

212 - Resin and Fatty Acids

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/MS

Preparation Method: LIQUID/LIQUID MICRO EXTRACTION (LLME)

Lab Method ID(s): VA-TM-1105, VA-TP-2111, VA-TP-2114

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3511	False	False	True
EPA 8270E	True	True	False

Parameter	Accredited
12-Chlorodehydroabietic acid	Yes
14-Chlorodehydroabietic acid	Yes
9,10-Dichlorostearic acid	Yes
Abietic acid	Yes
Arachidic acid	Yes
Dehydroabietic acid	Yes
Dichlorodehydroabietic acid	Yes
Docosanoic Acid (Behenic acid)	Yes
Dodecanoic acid (Lauric acid)	Yes
Hexadecanoic acid (Palmitic acid)	Yes
Isopimaric acid	Yes
Levopimaric acid	Yes
Lignoceric acid	Yes
Linoleic acid (Octadecadienoic acid)	Yes
Linolenic acid (Octadecatrienoic acid)	Yes
Myristic acid (Tetradecanoic Acid)	Yes
Neoabietic acid	Yes
Oleic acid	Yes
Palustric acid	Yes
Pimaric acid	Yes
Sandaracopimaric acid	Yes
Stearic acid (Octadecanoic acid)	Yes

213 - Cyanide

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: AUTOMATED COLORIMETRIC

Preparation Method: DISTILLATION, EXTRACTION

Lab Method ID(s): NA-TM-1003, VA-WI-3019

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
ISO 14403	True	True	False
SM 4500-CN- I	True	True	False

Parameter	Accredited
Cyanide (SAD)	Yes
Cyanide (WAD)	Yes

214 - Cyanide

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: COLORIMETRIC-GAS DIFFUSION

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1003, VA-WI-3019

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM 7237	True	True	False
BC MOE LABORATORY MANUAL	True	True	False

Parameter	Accredited
Free Cyanide	Yes

217 - Nitrogen

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: AUTOMATED COLORIMETRIC

Preparation Method: DIGESTION

Lab Method ID(s): VA-TM-1047, VA-WI-3046

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500-P J	True	True	False

Parameter	Accredited
Total Dissolved Nitrogen	Yes
Total Nitrogen	Yes

219 - Acidity

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: TITRIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1053

Method Reference	Modified From	Analytical Method	Preparation Method
SM 2310	True	True	False

Parameter	Accredited
Acidity	Yes

220 - Chlorophyll A

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: FLUOROMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1038, VA-TP-2011

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 445.0	True	True	False

Parameter	Accredited
Chlorophyll a	Yes

221 - Oxidation Reduction Potential (ORP)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MV METER

Preparation Method:

Lab Method ID(s): VA-TM-1006

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM 1498-14	True	True	False

Parameter	Accredited
Oxidation Reduction Potential (ORP)	Yes

224 - Metals

Field of Accreditation: Environmental

Matrix: Air [Dustfall]

Analytical Method: ICP/MS

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TP-2063

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
EPA 6020B	True	True	False

Parameter	Accredited

Parameter	Accredited
Aluminum	Yes
Antimony	Yes
Arsenic	Yes
Barium	Yes
Beryllium	Yes
Bismuth	Yes
Boron	Yes
Cadmium	Yes
Calcium	Yes
Chromium	Yes
Cobalt	Yes
Copper	Yes
Lead	Yes
Lithium	Yes
Magnesium	Yes
Manganese	Yes
Molybdenum	Yes
Nickel	Yes
Potassium	Yes
Selenium	Yes
Silver	Yes
Sodium	Yes
Strontium	Yes
Thallium	Yes
Tin	Yes
Uranium	Yes
Vanadium	Yes
Zinc	Yes

227 - Dustfall

Field of Accreditation: Environmental

Matrix: Air [Dustfall]

Analytical Method: GRAVIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1039

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D1739-98	False	True	False
BC MOE LABORATORY MANUAL	False	True	False

Parameter	Accredited
Fixed Dustfall	Yes
Total Dustfall	Yes
Total Insoluble Dustfall	Yes
Total Soluble Dustfall	Yes

228 - Simultaneously Extracted Metals (SEM)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: COLD VAPOUR ATOMIC FLUORESCENCE SPECTROSCOPY (CVAFS)

Preparation Method: SEM EXTRACTION

Lab Method ID(s): NA-TM-1005, NA-TP-2012, VA-TM-1021

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1631E	True	True	False
EPA 821/R-91/100	True	True	False

Parameter	Accredited
Mercury	Yes

230 - Acid Volatile Sulphide (AVS)

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: COLORIMETRIC

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1021

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 821/R-91/100	True	True	False

Parameter	Accredited
Acid Volatile Sulphide (AVS, Acid Volatile Sulfide)	Yes

232 - Arsenic

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: HPLC/ICP/MS

Preparation Method:

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1086

Method Reference	Modified From	Analytical Method	Preparation Method
USGS WATER RESOURCES INVESTIGATION REPORT 02-4144	True	True	False

Parameter	Accredited
Arsenate (As(V))	Yes
Arsenite (As(III))	Yes

Parameter	Accredited
Arsenobetaine (AsB)	Yes
Dimethylarsinic acid (DMA)	Yes
Monomethyl arsenate (MMA)	Yes
Total Arsenic Species	Yes
Total Inorganic Arsenic	Yes
Total Inorganic Arsenic and Methylated Metabolites	Yes

233 - Arsenic Speciation

Field of Accreditation: Environmental

Matrix: Biomaterials [Urine]

Analytical Method: HPLC/ICP/MS

Preparation Method:

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1081

Method Reference	Modified From	Analytical Method	Preparation Method
CDC METHOD 3000.15, 2016	True	True	False
EPA 6020A	True	True	False

Parameter	Accredited
Arsenate (As(V))	Yes
Arsenite (As(III))	Yes
Arsenobetaine (AsB)	Yes
Dimethylarsinic acid (DMA)	Yes
Monomethyl arsenate (MMA)	Yes
Total Arsenic Species	Yes
Total Inorganic Arsenic	Yes
Total Inorganic Arsenic and Methylated Metabolites	Yes

234 - Creatinine

Field of Accreditation: Environmental

Matrix: Biomaterials [Urine]

Analytical Method: COLORIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1052

Method Reference	Modified From	Analytical Method	Preparation Method
THERMO DRI CREATININE-DETECT SPECIMEN VALIDITY TEST	False	True	False

Parameter	Accredited
Creatinine	Yes

235 - Leachable Metals

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: ICP/MS

Preparation Method: TCLP

Lab Method ID(s): NA-TM-1002, NA-TM-1700, NA-TP-2007

Method Reference	Modified From	Analytical Method	Preparation Method
BC PROTOCOL 13	True	True	False
EPA 1311	True	False	True
EPA 6020B	True	True	False

Parameter	Accredited
Antimony	Yes
Arsenic	Yes
Barium	Yes
Beryllium	Yes
Boron	Yes
Cadmium	Yes
Calcium	Yes
Chromium	Yes
Cobalt	Yes
Copper	Yes
Iron	Yes
Lead	Yes
Magnesium	Yes
Nickel	Yes
Selenium	Yes
Silver	Yes
Thallium	Yes
Uranium	Yes
Vanadium	Yes
Zinc	Yes
Zirconium	Yes

236 - Arsenic Speciation

Field of Accreditation: Food

Matrix: Food [Egg, Fresh Fruit, Meat, Processed Food, Vegetables]

Analytical Method: HPLC/ICP/MS

Preparation Method:

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1082

Method Reference	Modified From	Analytical Method	Preparation Method
CFIA SOM-DAR-CHE-053-04	True	True	False
EPA 6020A	True	True	False

Parameter	Accredited
Arsenate (As(V))	Yes
Arsenite (As(III))	Yes
Arsenobetaine (AsB)	Yes
Arsenocholine (AsC)	Yes
Dimethylarsinic acid (DMA)	Yes
Monomethyl arsenate (MMA)	Yes

237 - Polycyclic Aromatic Hydrocarbons (PAH)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/MS

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1112, NA-TP-2109

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3511	True	True	False
EPA 8270D	True	True	False

Parameter	Accredited
1-Methylnaphthalene	Yes
2-Methylnaphthalene	Yes
Acenaphthene	Yes
Acenaphthylene	Yes
Acridine	Yes
Anthracene	Yes
Benzo(a)anthracene	Yes
Benzo(a)pyrene	Yes
Benzo(b,j)fluoranthene	Yes
Benzo(g,h,i)perylene	Yes
Benzo(k)fluoranthene	Yes
Chrysene	Yes
Dibenzo(a,h)anthracene	Yes
Fluoranthene	Yes
Fluorene	Yes
Indeno(1,2,3 - cd)pyrene	Yes
Naphthalene	Yes
Phenanthrene	Yes
Pyrene	Yes
Quinoline	Yes

238 - Petroleum Hydrocarbons (PHC)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/FID

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1112, NA-TP-2100

Method Reference	Modified From	Analytical Method	Preparation Method
CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD	True	True	False
EPA 3511	True	True	False

Parameter	Accredited
F2: C10-C16	Yes
F3: C16-C34	Yes
F4: C34-C50	Yes

239 - Oil and Grease

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: GRAVIMETRIC

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1100

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD	True	True	False

Parameter	Accredited
Mineral Oil and Grease	Yes
Total Oil and Grease	Yes

240 - Escherichia coli (E. coli)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: MEMBRANE FILTRATION (MFC/NA-MUG)

Preparation Method:

Lab Method ID(s): VA-TM-1201

Method Reference	Modified From	Analytical Method	Preparation Method
SM 9222 G	True	True	False

Parameter	Accredited
Escherichia coli	Yes

241 - Lipid Content

Field of Accreditation: Environmental

Matrix: Tissue

Analytical Method: GRAVIMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1112

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 3570	True	True	False
EPA 8290A	True	True	False

Parameter	Accredited
Lipid Content	Yes

242 - Dissolved Ferrous Iron

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLORIMETRIC

Preparation Method: FILTRATION

Lab Method ID(s): VA-TM-1046, VA-TP-2009

Method Reference	Modified From	Analytical Method	Preparation Method
ENVIRONMENTAL SCIENCE & TECHNOLOGY, 33(5), PP 807-813	True	True	False
SM 3500-FE	True	True	False

Parameter	Accredited
Ferrous Iron (Fe2+)	Yes

244 - Leachable Anions

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: ION CHROMATOGRAPHY (IC)

Preparation Method: SHAKEFLASK EXTRACTION

Lab Method ID(s): NA-TM-1001, VM-TM-1074

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 300.1	True	True	False
MEND REPORT 1.20.1	True	True	False

Parameter	Accredited
Bromide	Yes
Chloride	Yes
Fluoride	Yes
Nitrate-Nitrogen (NO3-N)	Yes
Nitrite-Nitrogen (NO2-N)	Yes
Sulphate (Sulfate)	Yes

245 - Fecal (Thermotolerant) Coliforms

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: MOST PROBABLE NUMBER (MPN)

Preparation Method:

Lab Method ID(s): VA-TM-1200

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1680	True	True	False

Parameter	Accredited
Fecal (Thermotolerant) Coliforms	Yes

247 - Leachable Metals

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: ICP/MS

Preparation Method: SHAKEFLASK EXTRACTION

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1074

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 6020B	True	True	False
MEND REPORT 1.20.1	True	True	False

Parameter	Accredited
Aluminum	Yes
Antimony	Yes
Arsenic	Yes
Barium	Yes
Beryllium	Yes
Bismuth	Yes
Boron	Yes
Cadmium	Yes
Calcium	Yes
Chromium	Yes
Cobalt	Yes
Copper	Yes
Iron	Yes
Lead	Yes
Lithium	Yes
Magnesium	Yes
Manganese	Yes
Molybdenum	Yes
Nickel	Yes
Phosphorus	Yes

Parameter	Accredited
Potassium	Yes
Selenium	Yes
Silicon	Yes
Silver	Yes
Sodium	Yes
Strontium	Yes
Thallium	Yes
Tin	Yes
Uranium	Yes
Vanadium	Yes
Zinc	Yes

250 - pH

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: PH METER

Preparation Method: SHAKE EXTRACTION

Lab Method ID(s): VA-TM-1074

Method Reference	Modified From	Analytical Method	Preparation Method
MEND REPORT 1.20.1	True	True	False
SM 4500-H	True	True	False

Parameter	Accredited
pH	Yes

251 - Extractable Petroleum Hydrocarbons (EPH)

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/FID

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1112, NA-TP-2106, VA-TP-2129

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	False	True	False

Parameter	Accredited
Extractable Petroleum Hydrocarbons (EPH): C10-C19	Yes
Extractable Petroleum Hydrocarbons (EPH): C10-C19 (sg)	Yes
Extractable Petroleum Hydrocarbons (EPH): C19-C32	Yes
Extractable Petroleum Hydrocarbons (EPH): C19-C32 (sg)	Yes
Total Extractable Hydrocarbons (TEH): C10-C30	Yes

252 - Selenium Speciation

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: HPLC/ICP/MS

Preparation Method:

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1084

Method Reference	Modified From	Analytical Method	Preparation Method
SPECTROCHIMICA ACTA PART B60 (2005) 633-641	False	True	False

Parameter	Accredited
Selenium (IV)	Yes
Selenium (VI)	Yes
Selenomethionine	Yes

253 - Selenium Speciation

Field of Accreditation: Environmental

Matrix: Tissue

Analytical Method: HPLC/ICP/MS

Preparation Method:

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1085

Method Reference	Modified From	Analytical Method	Preparation Method
CFIA METHOD SOM-DAR CHE-053-04	False	True	False

Parameter	Accredited
Selenium (IV)	Yes
Selenium (VI)	Yes
Selenomethionine	Yes

254 - UV Absorbance and Transmittance

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: SPECTROPHOTOMETRIC

Preparation Method:

Lab Method ID(s): VA-TM-1042, VA-TP-2011

Method Reference	Modified From	Analytical Method	Preparation Method
SM 5910 B	True	True	False

Parameter	Accredited
UV Absorbance	Yes
UV Transmittance	Yes

255 - Soluble Anions

Field of Accreditation: Environmental

Matrix: Dustfall

Analytical Method: ION CHROMATOGRAPHY (IC)

Preparation Method:

Lab Method ID(s): NA-TM-1001, VA-TM-1039

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
EPA 300.0	True	True	False
SM 4110	True	True	False

Parameter	Accredited
Chloride	Yes
Nitrate (NO3)	Yes

256 - Anions

Field of Accreditation: Environmental

Matrix: Solids [Leachate]

Analytical Method: ION CHROMATOGRAPHY (IC)

Preparation Method: FIXED RATIO EXTRACTION

Lab Method ID(s): NA-TM-1001, VA-TM-1078

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
EPA 300.0	True	True	False
SM 4110	True	True	False

Parameter	Accredited
Chloride	Yes
Sulphate	Yes
Sulphate (Sulfate)	Yes

257 - Acidity

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: TITRIMETRIC

Preparation Method: SHAKEFLASK EXTRACTION

Lab Method ID(s): VA-TM-1053, VA-TM-1074

Method Reference	Modified From	Analytical Method	Preparation Method
MEND REPORT 1.20.1	True	True	False
SM 2320 B	True	True	False

Parameter	Accredited
Acidity (as CaCO3)	Yes

258 - Alkalinity

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: TITRIMETRIC

Preparation Method: SHAKEFLASK EXTRACTION

Lab Method ID(s): VA-TM-1053, VA-TM-1074

Method Reference	Modified From	Analytical Method	Preparation Method
MEND REPORT 1.20.1	True	True	False
SM 2320 B	True	True	False

Parameter	Accredited
Alkalinity (pH 4.5)	Yes

259 - Ashfree

Field of Accreditation: Environmental

Matrix: Tissue

Analytical Method: GRAVIMETRIC

Preparation Method:

Lab Method ID(s): VM-TM-1051

Method Reference	Modified From	Analytical Method	Preparation Method
SM 10300	True	True	False

Parameter	Accredited
Ash-free weight	Yes

261 - Lead

Field of Accreditation: Environmental

Matrix: Paint

Analytical Method: ICP/MS

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1002, NA-TP-2004

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 200.2	True	True	False
EPA 6020B	True	True	False

Parameter	Accredited
Lead	Yes

262 - Paint Filter

Field of Accreditation: Environmental

Matrix: Solids [Paint]

Analytical Method:

Preparation Method: FILTRATION

Lab Method ID(s): VA-TM-1055

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 9095B	True	True	False

Parameter	Accredited
Paint Filter (Free Liquid)	Yes

263 - Volatile Organic Compounds (VOC)

Field of Accreditation: Environmental

Matrix: Solids

Analytical Method: GC/MS-HEADSPACE

Preparation Method: TCLP

Lab Method ID(s): NA-TM-1102, VA-TM-1126

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1311	True	False	True
EPA 8260C	True	True	False

Parameter	Accredited
1,1-Dichloroethene (1,1-Dichloroethylene)	Yes
1,2-Dichlorobenzene	Yes
1,2-Dichloroethane	Yes
1,4-Dichlorobenzene	Yes
Benzene	Yes
Bromodichloromethane	Yes
Bromoform	Yes
Carbon tetrachloride	Yes
Chlorobenzene	Yes
Chlorodibromomethane	Yes
Chloroethene (Vinyl chloride)	Yes
Chloroform	Yes
Dichloromethane (Methylene Chloride)	Yes
Ethylbenzene	Yes
m,p-Xylene	Yes
Methyl ethyl ketone	Yes
o-Xylene	Yes
Tetrachloroethylene	Yes
Toluene	Yes
Trichloroethylene	Yes

264 - Flashpoint

Field of Accreditation: Environmental

Matrix: Solids [Ash]

Analytical Method: PENSKY-MARTENS CLOSED CUP

Preparation Method:

Lab Method ID(s): VA-TM-1090

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D93-15	True	True	False

Parameter	Accredited
Flashpoint	Yes

265 - Mercury

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Preparation Method:

Lab Method ID(s): NA-TM-1005, NA-TP-2002, NA-TP-2012

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1631E	True	True	False

Parameter	Accredited
Mercury	Yes

266 - Total Mercury

Field of Accreditation: Environmental

Matrix: Tissue

Analytical Method: COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Preparation Method:

Lab Method ID(s): NA-TM-1005, NA-TP-2006, NA-TP-2012

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1631E	True	True	False
EPA 200.3	True	True	False

Parameter	Accredited
Mercury	Yes

267 - Leachable Mercury

Field of Accreditation: Environmental

Matrix: Solids [Waste]

Analytical Method: COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1005, NA-TP-2012, VA-TM-1071

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE ENVIRONMENTAL MANAGEMENT ACT HAZARDOUS WASTE REGULATION (EMA/HWR)	True	True	False

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1631E	True	True	False

Parameter	Accredited
Mercury	Yes

268 - Leachable Mercury

Field of Accreditation: Environmental

Matrix: Solids [Waste]

Analytical Method: COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Preparation Method: TCLP

Lab Method ID(s): NA-TM-1005, NA-TM-1700, NA-TP-2012

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1311	True	False	True
EPA 1631E	True	True	False

Parameter	Accredited
Mercury	Yes

269 - Mercury

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1005, NA-TP-2004, NA-TP-2012

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL, SALM	True	False	True
EPA 1631E	True	True	False
EPA 200.2	True	True	False

Parameter	Accredited
Mercury	Yes

270 - Leachable Mercury

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1005, NA-TP-2012, VA-TM-1074

Method Reference	Modified From	Analytical Method	Preparation Method
MEND REPORT 1.20.1	True	True	False

Parameter	Accredited
Mercury	Yes

271 - Mercury

Field of Accreditation: Environmental

Matrix: Air [Dustfall]

Analytical Method: COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Preparation Method: DIGESTION

Lab Method ID(s): NA-TM-1005, NA-TP-2012, VA-TP-2063

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False
EPA 1631E	True	True	False

Parameter	Accredited
Mercury	Yes

273 - Metals

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: ICP/MS

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1021

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 6020B	True	True	False
EPA 821/R-91/100	True	True	False

Parameter	Accredited
Arsenic	Yes
Cadmium	Yes
Copper	Yes
Lead	Yes
Nickel	Yes
Zinc	Yes

274 - Leachable Metals

Field of Accreditation: Environmental

Matrix: Solids

Analytical Method: ICP/MS

Preparation Method: MLEP EXTRACTION

Lab Method ID(s): NA-TM-1002, NA-TP-2007, VA-TM-1071

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE CONTAMINATED SITES REGULATION (CSR)	True	True	False
EPA 6020B	True	True	False

Parameter	Accredited
Arsenic	Yes
Barium	Yes
Boron	Yes
Cadmium	Yes
Chromium	Yes
Copper	Yes
Lead	Yes
Selenium	Yes
Silver	Yes
Uranium	Yes
Zinc	Yes

275 - Metals

Field of Accreditation: Environmental

Matrix: Solids [Soil]

Analytical Method: ICP/MS

Preparation Method: EXTRACTION

Lab Method ID(s): NA-TM-1002, NA-TP-2007, NA-TP-2008

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 6020B	True	True	False
SOIL SAMPLING & METHODS OF ANALYSIS, CARTER 15	True	True	False

Parameter	Accredited
Calcium	Yes
Magnesium	Yes
Potassium	Yes
Sodium	Yes

276 - Hexavalent Chromium

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: ION CHROMATOGRAPHY (IC)

Preparation Method:

Lab Method ID(s): NA-TM-1001, VA-TM-1056

Method Reference	Modified From	Analytical Method	Preparation Method
EPA 1620B	True	True	False
SM 3500-CR C	True	True	False

Parameter	Accredited
Dissolved Hexavalent Chromium	Yes
Hexavalent Chromium	Yes

277 - Sulphide

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: COLORIMETRIC-CONTINUOUS FLOW (CFA)

Preparation Method:

Lab Method ID(s): VA-TM-1057

Method Reference	Modified From	Analytical Method	Preparation Method
SM 4500 A	True	True	False
SM 4500 E	True	True	False
SM 4500 S2- D	True	True	False

Parameter	Accredited
Sulphide	Yes

278 - Legionella

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: CULTURE

Preparation Method:

Lab Method ID(s): NA-TM-1302

Method Reference	Modified From	Analytical Method	Preparation Method
ISO 11731	True	True	False

Parameter	Accredited
Legionella pneumophila	Yes

279 - Tetraethyllead

Field of Accreditation: Environmental

Matrix: Water

Analytical Method: GC/ICP/MS

Preparation Method: EXTRACTION

Lab Method ID(s): VA-TM-1129, VA-TP-2132

Method Reference	Modified From	Analytical Method	Preparation Method
BC MOE LABORATORY MANUAL	True	True	False

Parameter	Accredited
Tetraethyl lead	Yes

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html

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Appendix 3-I: ALS Analytical QA/QC Program

PEACE RIVER
HYDRO PARTNERS

Quality System Protocols

19 January 2018

ALS is a global diversified testing services organization with a presence on every continent, offering a broad range of services to leading global companies.

The following summarizes standard practices routinely employed by the ALS Environmental Division in Canada. Our practices exceed accreditation requirements and have been designed to meet or exceed the needs of our customers and to give them confidence in the reliability of our test data.

ALS Canada locations hold accreditations and certifications relevant to their work and area of operation. Participation in CALA, USA DOD, NELAP, various USA state and other regional and regulatory programs is location-specific. Refer to Accreditations in the Environmental Testing Downloads section at www.alsglobal.com for information relevant to each ALS location. Alternatively, current scopes and certificates are available from your Account Manager or by contacting our Quality Department.

Additional information is available on request. Customers are invited to audit or tour ALS facilities at their convenience.

Services to Customers:

ALS cooperates closely with our customers to ensure their testing needs are understood, and allows them reasonable access to relevant work areas of the laboratories to audit our management system or to witness test work undertaken on their behalf.

All client issues are logged into our tracking system to ensure each issue is addressed completely and appropriately. Local and national oversight and initiatives ensure that identified improvements are incorporated throughout our Canadian laboratory network so that customers receive the same level of service regardless of which location performs the testing.

Documentation and Document Control:

Test methods and support procedures are documented in detail to ensure consistency of application, repeatability of test results and traceability of analyses.

Test method requirements include but are not limited to sample handling, sample storage, minimizing interference, sample preparation, reagent and standard specifications, equipment, supplies, calibration requirements, instrumental measurement procedures, quality control requirements, data quality objectives and corrective actions, calculations, reporting requirements, reference information, and hazards and their preventive measures.

Administrative support procedures are also documented where needed to ensure quality system procedures and customer services are provided in a controlled, approved manner consistent with ALS policies and client needs.

All documents are authorized prior to use, ensuring adequate technical and quality oversight.

Distribution of documents is controlled to ensure only the most recent version is available for use. Authorized documents are reviewed periodically by the ALS signing authority to ensure they continue to meet both internal ALS requirements and our customers' needs.

Test methods and support procedures are available for client viewing on-site.

Internal Audits:

ALS Canada operates an extensive internal audit program. Audits are performed by qualified Quality Assurance and Technical staff for analytical procedures and Quality System elements. The ALS audit program ensures that

procedures are implemented as intended, that test methods are scientifically defensible and technically sound, and that policies, procedures and records continue to meet the objectives of our Quality System.

Quality staff may periodically initiate unscheduled audits in response to proficiency testing program results, client feedback, requests from managers, or any other circumstance that warrants investigation.

Quality Control (QC):

ALS has established QC procedures for monitoring the validity of tests performed by our laboratories. Individual test methods specify quality control requirements, frequency of use, and Data Quality Objectives (DQOs).

The type of quality control elements used for process monitoring is dependent on the test performed, but typically includes (as appropriate): Calibration Verification Standards, Continuing Calibration Verifications, Instrument Blanks, Method Blanks, Laboratory Control Samples, Reference Materials, Matrix Spikes, Surrogate Spikes, and Internal Standards.

DQOs are established for each QC type, based on a combination of reference method objectives, customer requirements and historical test method performance. Where applicable, prescriptive elements of reference methods take precedence over internal DQOs.

Test results for selected QC samples are available on test reports. Please contact your Account Manager for more information.

Refer to the ALS Quality Control Protocol handout for details on ALS QC practices.

Control Charts:

Control charts are used to provide a graphical representation of QC results and test method performance over time. Control charts graphically display DQOs as well as the statistically derived mean and ± 2 and 3 standard deviations (“sigma”) around the mean, calculated from recent historical QC results. ALS applies advanced trend monitoring algorithms to identify outliers and non-random data distributions (trends) that may indicate undesirable changes in test method performance, so the causes can be investigated and corrected.

Continuous Improvement:

ALS is committed to continuously improving our processes and services. The Quality System feeds into a continuous cycle of review, implementation, and monitoring so that improvements are actively sought and adopted where needed.

Test Data Validation and Record Retention:

ALS analytical data proceeds through several reviews prior to the release of final reports. The ALS data validation process includes test result validation, inter-parameter validation, and report validation. Test result validation involves a thorough analyst review followed by an independent peer review. Inter-parameter validation occurs when all department specific parameters for a sample are completed, and involves an overall review of test results within each sample for consistency among any related test parameters. Report validation occurs when all the requested test results for a work order are completed, and involves a review of the final report before it is sent to the customer.

ALS maintains laboratory records in a traceable manner for a minimum of five years.

Method Validation:

Customers rely on ALS to select test methods that are appropriate to meet their needs. Wherever possible, ALS references the latest versions of published standard methods developed by organizations such as American Public Health Association, United States Environmental Protection Agency, NIOSH, Environment Canada, and other international, regional or regulatory organizations or equipment manufacturers.

Method validations are conducted to confirm that our test methods are fit for their intended use. The validations are as extensive as necessary to meet the needs of the given application. The extent depends on the source of the method. Test methods are revalidated periodically to ensure continued suitability and fitness for purpose.

Method Detection Limits and Limits of Reporting:

ALS Limits of Reporting (LORs) are established using rigorous experimental and statistical procedures that begin with the determination of the Method Detection Limit (MDL) at 99% confidence. The MDL takes into account several factors, like long term Method Blanks, low level Sample Duplicates, and low level Spiked Samples. When detected at or above the MDL, ALS test results are considered to be qualitatively accurate, and a parameter can be reported with 99% confidence as being present in the sample.

$$MDL = (s_0 \times t_{n-1}) + |MBlk|$$

Where:
- s_0 = the standard deviation derived from the analysis of blank or low level samples, whichever gives a higher standard deviation,
- t_{n-1} = the Student's t-distribution with n-1 degrees of freedom for the one-sided 99% confidence interval.
- |MBlk|= the absolute value of the mean method blank.

ALS takes a conservative approach to detection limits. Our goal is to minimize false positives, because we recognize that any false positive results can be damaging for our clients. Where possible, we establish LORs at levels well-above the statistical MDL, and ideally at the LOQ_5. This improves the accuracy and precision of results near the detection limit, and reduces the chance of false positives due to sample-specific issues. At or above the LOQ_5, test results are considered to be quantitatively accurate. A reported parameter at the LOQ_5 is considered to be within 40% of the true value 95% of the time.

$$LOQ_5 = 5s_0 + |MBlk|$$

Where:
s_0 = the standard deviation used in the MDL calculation,
|MBlk | = the absolute value of the mean method blank.

The D.L. column on ALS analytical reports contains the LOR (also known as Detection Limit). The LOR may be the MDL as calculated above, or a higher value. ALS does not report LORs that are less than the calculated MDL.

Measurement Uncertainty (MU):

ALS procedures for calculating measurement uncertainty are based on accepted practices of identifying components contributing to uncertainty, compiling data that represents or includes these components, evaluating the data using appropriate statistical calculations, and reporting in a manner that prevents misunderstanding of the result. ALS follows the Type A method of calculating measurement uncertainty, however additional factors are considered to ensure the best and most complete information is derived from our evaluation of test method performance.

The ALS model describes the dependency of uncertainty on three factors. The first is a constant contribution to uncertainty attributable to s_0, the standard deviation of the method for concentrations that approach zero. The second is a constant relative uncertainty associated with higher parameter concentrations. The third is a constant

contribution to uncertainty attributable to the mean long-term method blank value where it is significant. The following is the ALS equation for measurement uncertainty, using an expansion factor of k=2:

Expanded 95% Uncertainty as a Function of Concentration

$$U(c) = 2 * [\sqrt{ \{ s_0^2 + (\Theta c)^2 \} }] + |MBlk_{LT}|$$

Where:

U(c) = The expanded uncertainty at concentration c. The range c ± U(c) represents approximately the 95% confidence interval (two standard deviations).

c = Measured concentration of parameter in the sample.

s_0 = A constant contribution to standard uncertainty represented by the standard deviation at zero concentration, which is related to the method detection limit.

Θ = Combined relative standard uncertainty, excluding MDL and Method Blank contributions. Theta has no units.

$|MBlk_{LT}|$ = Absolute value of the mean long-term Method Blank value, where significant (i.e. if > 1/5 s_0). [Note that the Method Blank term is not expanded because it represents a constant bias, not a variance.]

Uncertainty values obtained from this procedure must be regarded as estimates. Primarily, this is because all environmental samples are different, especially with regard to matrix effects and heterogeneity. It is our intent with this procedure to arrive at an estimate of a 95% confidence level uncertainty value that can be assumed to apply to 95% (or more) of the samples that a laboratory receives for a given test. It follows that for samples where undetected matrix effects or interferences occur, or for samples that are atypically heterogeneous, uncertainty estimates may be low.

Another aspect of reporting MU is the reporting of test method bias. Bias occurs in a small number of test methods that cannot recover 100% of a parameter from a sample. In these cases ALS reports bias along with the MU to aid with the interpretation of the test result.

Participation in Interlaboratory Proficiency Testing (PT) Programs:

ALS locations participate in an extensive variety of proficiency testing programs. Where available, formal programs operated by outside agencies are used. When not available, ALS utilizes less formal proficiency testing studies.

Root cause analysis is initiated and corrective action plans are developed when PT program results indicate a decline in test method performance.

Staff Training:

Formal training procedures are in place to ensure all staff are trained in ALS polices and analytical procedures prior to performing analyses. A staff orientation program communicates ALS polices to newly hired staff. Task specific training is performed, and analyst proficiency is demonstrated and documented before staff are authorized to work independently. On-going analyst proficiency is monitored using proficiency testing programs. Records are maintained in training logs issued to staff upon hiring.

As well, ALS Canada promotes continuing education and learning by offering advanced courses covering technical and quality functions.

Employee Agreements:

ALS protects our customers' confidential information and proprietary rights. We require all employees to review and sign a Code of Conduct policy that communicates the ALS confidentiality policy. It is ALS practice to never disclose information about a client's analysis to a third party without prior consent of the client, or unless compelled to by law. If we are obligated by law to disclose such information, we will inform the client prior to doing so.

ALS employees avoid involvement in activities that would diminish confidence in their competence, impartiality, judgment, or integrity by complying with the ALS Code of Conduct and Data Integrity Policy.

Sample Tracking:

Procedures are in place to track samples from receipt at the lab through to final reporting. A data management system (LIMS – Laboratory Information Management System) is used to generate a work order number for each sample submission, and a unique identification number is generated for each sample within the work order. The system is then used to assign specific analyses for the samples, to identify methods to be used, and to assign due dates for the results. The system is used to manage analytical workloads and track the status of all samples in-house. LIMS is a secure system that can only be accessed using login passwords. Controlling the level of access according to the needs of individual staff members provides additional security.

When requested by the client, legal sample protocols are implemented to ensure chain of custody defensibility in a court of law. Contact the lab for legal sampling and transportation instructions if this service is needed.

Equipment Calibration:

Measuring and testing equipment used by ALS laboratories that can have a significant effect on the accuracy or validity of test results is calibrated using established procedures. These procedures ensure traceability through an unbroken chain of calibrations or comparisons to national measurement standards. Where traceability of measurements to SI units is not possible and/or not relevant, traceability is provided by the use of certified reference materials and/or consensus standards.

Management Reviews (MR):

ALS management conducts a review at least annually to ensure our management system is effective, and continues to be suitable for our operations, and to identify necessary changes or improvements. Senior management is included in the review process for all locations.

Appendix 3-J: Bureau Veritas Lab Investigation

PEACE RIVER
HYDRO PARTNERS

NSC #: CAL NSC-02549

Title of NSC: PHRP – Dissolved>Total Aluminum

Client Information:

Client: Peace River Hydro Partners / Lorax Environmental Services

Client Contact: Kael Hanak

Client Phone Number: (250) 257-6598

Client Contact Email: Kael.Hanak@prhp.ca

Date Contacted: 2021/07/17

Method of Contact: Issue originally reported by Bruce Mattson of Lorax by Email

Client Project Number: 416-1, Site C

Problem Description:

Samples are submitted by the client, Peace River Hydro, on a daily basis. Each sample is analyzed for Total Metals, Dissolved Metals and a variety of other inorganic parameters.

The client submits their Total Metals samples in the Bureau Veritas recommended container (120mL Plastic Bottle preserved with Nitric Acid). The Dissolved Metals samples are submitted in a routine plastic container, and are filtered and preserved upon receipt by the lab.

The client started noticing that the Dissolved Aluminum results being reported were greater than the Total Aluminum results by a significant margin.

The discrepancy was first noticed shortly after analysis was moved from being performed in the Burnaby lab to the Calgary lab.

NSC Investigation:

Client requested reworks due to issues with results being over criteria for Aluminum or D>T imbalance.

Raw data and instrument QC was reviewed before and after and they did not have any issues related to Aluminum. Batch QC was also reviewed and most passed criteria. For worksheets where hits were observed for Aluminum, affected samples were re-prepared and rerun to confirm.

For initial list of jobs/samples affected from client, samples were re-prepared and rerun and data confirmed. Initial comparison with aliquots sent to the Burnaby lab could not be used because an aliquot of sample was sent from a different bottle, instead of the original sample containers.

For the second list of jobs/samples affected from client, original aliquot of samples were sent to the Burnaby lab and some data changes were observed for dissolved parameters, mainly the Burnaby location data was lower than Calgary location data. Total Aluminum was observed to be higher for Burnaby location data when compared to Calgary location data.

All steps performed including preservation, preparation, labeling, loading, etc. have method blanks and QC that are taken through the entire process and are evaluated accordingly. No issues were found during the period of the problem samples and no other client issues were observed.

Investigation had already started upon the initial list of affected jobs/samples from client. An observation audit was conducted and is attached (see Appendix A). Corrective actions, where applicable, are listed in blue text.

NSC Action Taken:

It should be noted that the attached findings in Appendix A are speculation and possible sources of contamination. Root cause has been undetermined because reruns confirmed analysis at the Calgary lab on both data sets.

It should also be noted that no other client issues were observed for Aluminum during this time. The clean room runs samples for other clients with using a method with lower detection limits, and no issues were noted. That being said, the process for the analyses with lower detection limits is different from the process used on the analysis being performed on these samples.

Since implementation of the new position and new analyst - no other occurrences of Aluminum issues have come forward from Peace River Hydro Partners.

Approval Status:

Approved by: Heather Groves, Senior Laboratory Manager, Alberta

Approved by: Scott Cantwell, Director and General Manager, Western Canada

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Appendix A:

Clean Room Findings

Prior to June 2021 – Calgary was only running mining client samples in the Clean Room for ultra low level metals.

Sample volumes increased by 300% after Calgary stopped subletting samples to Burnaby for routine low level metals.

Turnaround time decreased and overtime requirements increased. At the time, there was a single analyst performing all Low Level Metals work, and the work volume was too much for one person to handle.

The clean room area was disorganized. Too many unnecessary items were being stored in the preparation area and within the clean room fumehood.

- ALL unnecessary items were removed from the cleanroom. A shelf was purchased and installed to make room for clean room consumables. All paper and cardboard was removed. Plastic containers were provide for storage.

Samples from Peace River for dissolved metals are always provided for Dissolved Metals, as un-filtered and un-preserved. Filtration and preservation has to be completed manually by the clean room analyst.

Bottles were arriving to the Low Level lab area with no test codes and due dates. The analyst had no system of organization and the analyst was manually keeping track of test code requirements and grouped samples based on job numbers.

- This process has been updated. All low level tests are now activated in SAIL (internal tracking system) and samples are scanned in upon receipt. Labels are printed with due dates and test codes and placed in the corresponding shelf.

No clean room wipes. The analyst was using Kimwipes.

- Kimwipes were removed and clean room low particulate wipes were implemented.

Regular clean up throughout the clean room was not being performed.

- This is now being done every night before the end of the shift by the clean room preparation analyst.

The analyst was using 'leached' disposable pipette tips for preservation of samples. The tips were rinsed after leaching, but not prior to use. The analyst was individually pipetting acid into the samples instead of using the repeater pipette provided. The analyst was not 'dispensing to waste' the initial acid aliquot taken prior to preserving. It's possible this step may have been a possible source of contamination.

- This step is now being conducted using repeater pipettes. There are two labeled and mounted repeaters in the clean room fumehood, one for each acid type.
- The repeater tips are leached overnight daily. They are rinsed prior to use at the beginning of the day.
- At the end of the day, the tips are placed into the leaching container with acid overnight.

Filter blanks, using de-ionized water were performed in different ways to confirm if the filters were not contaminating the samples. This only applies to the Dissolved Metals test code used on Peace River Hydro samples. Low level metals have a completely different process.

- Filter was rinsed with sample and an aliquot would go to waste before taking the final 10 mL aliquot.
    - No contamination present.
- Filter was NOT rinsed with sample and an aliquot would go to waste before taking the final 10 mL. Vial was NOT rinsed with sample prior to dispense.
    - No contamination present.
- Filter was rinsed with sample, vial was rinsed with sample and would go to waste before taking the final 10 mL aliquot.
    - No contamination present.
- Conclusion – filtering step did not contribute to any Aluminum contamination.

Ultrapure de-ionized water was not available in the clean room. Analyst would have to retrieve their de-ionized water from the main lab. Contamination risk is low on this step. A request to have a dedicated unit in the Clean Room was made.

- This was updated on 2021-09-06. The Clean Room now has a dedicated de-ionized water machine within the room.

To address the overtime and turnaround time issues, an analyst was hired, and a new position was created where this person would be solely responsible for all dissolved or filtered metals preparation. The analyst was hired 2021/08/09 and made fully proficient on 2021/09/02.