BI-WEEKLY STATUS REPORT

Cobble Hill Landfill Closure

PROJECT # : PRJ18074	**File #:** 18074- BWR-71
REPORT #: 72	**Date:** July 15, 2020
SHA REPRESENTATIVES: Dr. Tony Sperling, P.Eng. Scott Garthwaite Carly Wolfe, EIT	**Owner:** Cobble Hill Holdings Ltd. **Contractor:** Allterra Construction Ltd.

Semi Monthly Reporting Requirements SPO MO1701
Per SPO MO1701 Section 4:
Commencing in the month that closure activities commence pursuant to the approved Updated Final Closure Plan, the Named Parties must submit semi-monthly status reports, certified by a Qualified Professional. The reports must include the status of closure activities, inspection results, quality control and testing results, photographs which support/document the quality control and testing results, inspection reports and other supporting documents as needed to fully document all stages and components of the closure activities.

Per Condition 10 of June 26, 2019 Letter Re: Second Amended Spill Prevention Order MO1701, dated June 29, 2017 – Final Closure Plan:

Identification of any deviations from the quality management plan and the construction activities work plan and implementation schedule referenced in conditions 3 and 4 of this approval; The results of inspections, repairs, quality controls and testing, in accordance with the quality management plan referenced in condition 5 of this approval; The planned activities (and associated timing) for the next reporting cycle; and The environmental monitoring program laboratory reports and tabulated results (Quarterly Only-Submitted quarterly, reviewed annually by others). Copies of all soil relocation documentation as required in condition 7 of this approval.

Status reports must be submitted by the 15th and 30th of each month (or the next business day thereafter if the 15th or 30th of the month is not a business day) until closure activities have been completed. Submissions must be made electronically to the following email inbox: EnvironmentalCompliance@gov.bc.ca.

1. **Status of Closure Activities**
   - Activities related to QMP "Construction Activities" occurred this reporting cycle.
   - Placement of 50 mm thick sand layer on PEA occurred this period.
   - Deployment of 12 oz. non-woven geoxtile over sand layer on PEA occurred this period.
   - Placement of 200 mm thick drainage gravel layer over 12 oz. geotextile on PEA occurred this period.
   - Deployment of 8 oz. non-woven geotextile over gravel drainage layer on PEA occurred this period.
   - Placement and compaction of common fill soil stabilizing wedge at toe of PEA occurred this reporting period.
   - Growing medium importation occurred this reporting period. Source site is 2251 Bear Mountain Parkway.

2. **Inspection Results**
   - Permanent Encapsulation Area (PEA): Liner appears to be in good condition. No noticeable changes since last reporting period.
   - Soil Management Area (SMA): All works are in good condition, no noticeable changes since last reporting period.
   - Cut-off ditch upland of PEA: All works are in good condition, ditch still performing well.
   - Pictures detailing inspection results are shown at the end of this report.

3. **Results of Inspections, Repairs, Quality Controls and Testing, in Accordance with the Quality Management Plan**
   - See attached site inspection reports.

4. **Identification of Any Deviations from the Quality Management Plan and the Construction Activities Work Plan and Implementation Schedule**

☒ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD ☐ DEVIATIONS OCCURRED THIS REPORTING PERIOD	Notes:

5. **The Planned Activities (and associated timing) for the Next Reporting Cycle**
   - Growing medium importation is to continue into the subsequent reporting cycle.
   - Placement of 50 mm thick sand layer on PEA is to continue into the subsequent reporting cycle.

- Deployment of 12 oz. geotextile over sand layer on PEA is to continue into the subsequent reporting cycle.
- Placement of drainage gravel over 12 oz. geotextile layer on PEA is to continue into the subsequent reporting cycle.
- Placement of 8 oz. geotextile layer over drainage gravel layer on PEA is to continue into the subsequent reporting cycle.
- Placement and compaction of common fill soil stabilizing wedge is to continue into the subsequent reporting cycle.
- Cutting open the PEA liner will occur in the subsequent reporting period.
- Relocation of contaminated soil into the PEA will occur in the subsequent reporting period.
- Welding of PEA liner will occur in the subsequent reporting period.
- Deployment of draintube will occur in the subsequent reporting period.

6. Environmental Monitoring Program Laboratory Reports and Tabulated Results

- No sampling occurred this reporting period. Tabulated results and laboratory certificates from sampling that occurred on June 1, 2020 is attached, as it was not available to be attached to previous bi-weekly report.

7. Copies of All Soil Relocation Documentation

- Origin site land use was assessed via Technical Guidance 10 on Contaminated Sites. Soil quality was confirmed per letters of assurance provided by CSAP to BC ENV.

8. Leachate Volumes Over Reporting Period

- Total Leachate Collected: 6.30 m^3
- Total Leachate Stored: 39.43 m^3
- Total Leachate Transferred: 0 m^3

9. Pictures

Picture #1: Looking Southwest at the PEA

Picture #2: Placement of Closure Layers on the PEA

Report prepared by:

Carly Wolfe, EIT

Report Reviewed by:

Dr. Tony Sperling, P.Eng.

July 15, 2020

Note: Report prepared by Sperling Hansen Associates Inc. If those in attendance have additions or objections to these notes, they should report back to Sperling Hansen Associates (SHA) within 3 days of receipt, otherwise, these notes will be considered a complete and accurate permanent record of this reporting period.

Attachments:

Cobble Hill Landfill Site Inspection Report 2020-07-01
Cobble Hill Landfill Site Inspection Report 2020-07-02
Cobble Hill Landfill Site Inspection Report 2020-07-06
Cobble Hill Landfill Site Inspection Report 2020-07-07
Cobble Hill Landfill Site Inspection Report 2020-07-08
Cobble Hill Landfill Site Inspection Report 2020-07-13
Analytical Results for Groundwater at MW19-02 (2020-06-01)
Analytical Results for Surface Water at SW-1 (2020-06-01)
COAs for MW19-02 and SW-1 (2020-06-01)

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Rahim Gaidhar, GIT

Date: July 1, 2020

Time: 8:30AM – 4:00PM

Owner:
Cobble Hill Holdings Ltd.

Contractor:
Allterra Construction Ltd

Weather
Morning: Cloud

Afternoon: Cloud

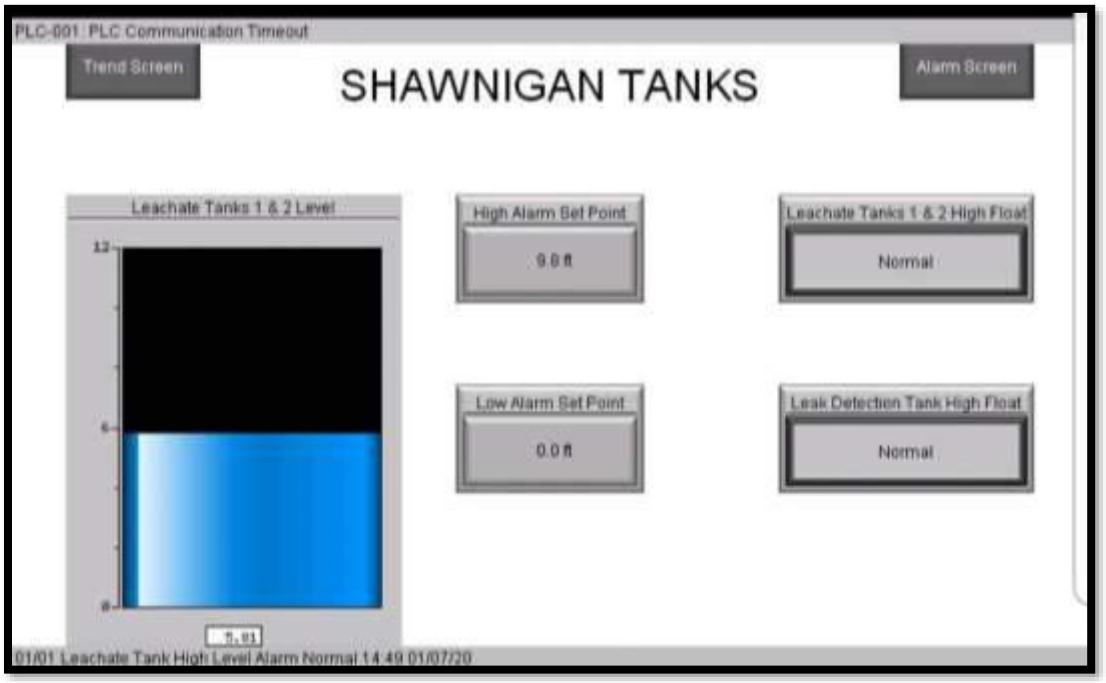
Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 1, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items.

Picture # 1: Stockpile Locations – North Toe and East Toe

Picture # 2: Site – Looking West

Picture # 3: Site – North Toe



Picture # 4: Leachate Level – 5.81ft per tank

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

GEL REPRESENTATIVE:

Sean Babulic, EIT

Date: July 2 2020

Time: 8:30AM – 3:30PM

Owner:
Cobble Hill Holdings Ltd.

Contractor:
Allterra Construction Ltd

Weather
Morning: Cloudy

Afternoon: Cloudy

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 2, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items, if applicable.

Picture # 1: Contractor has laid out toe of slope for PEA cover..

Picture # 2: Leachate levels = 5.89 ft.

Picture # 3: Discharge from the site is near non existent during dry weather.

Picture # 4: D6 dozer spreading and compacting general fill east of PEA.

Picture # 5: Contractor moving stockpiled soils to PEA slope with rock truck.

Picture # 6: Import soils from 2251 Bear Mountain deposited at northern slope of PEA.

Report prepared by:

Sean Babulic, EIT.
Islander Engineering Ltd.

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Joel Clarkston, Grad. Tech.

Date: July 6, 2020

Time: 8:00AM –3:30PM

Owner:
Cobble Hill Holdings Ltd.

Contractor:
Allterra Construction Ltd

Weather
Morning: Overcast 16° C

Afternoon: Sun and Cloud 20° C

Construction Activities:

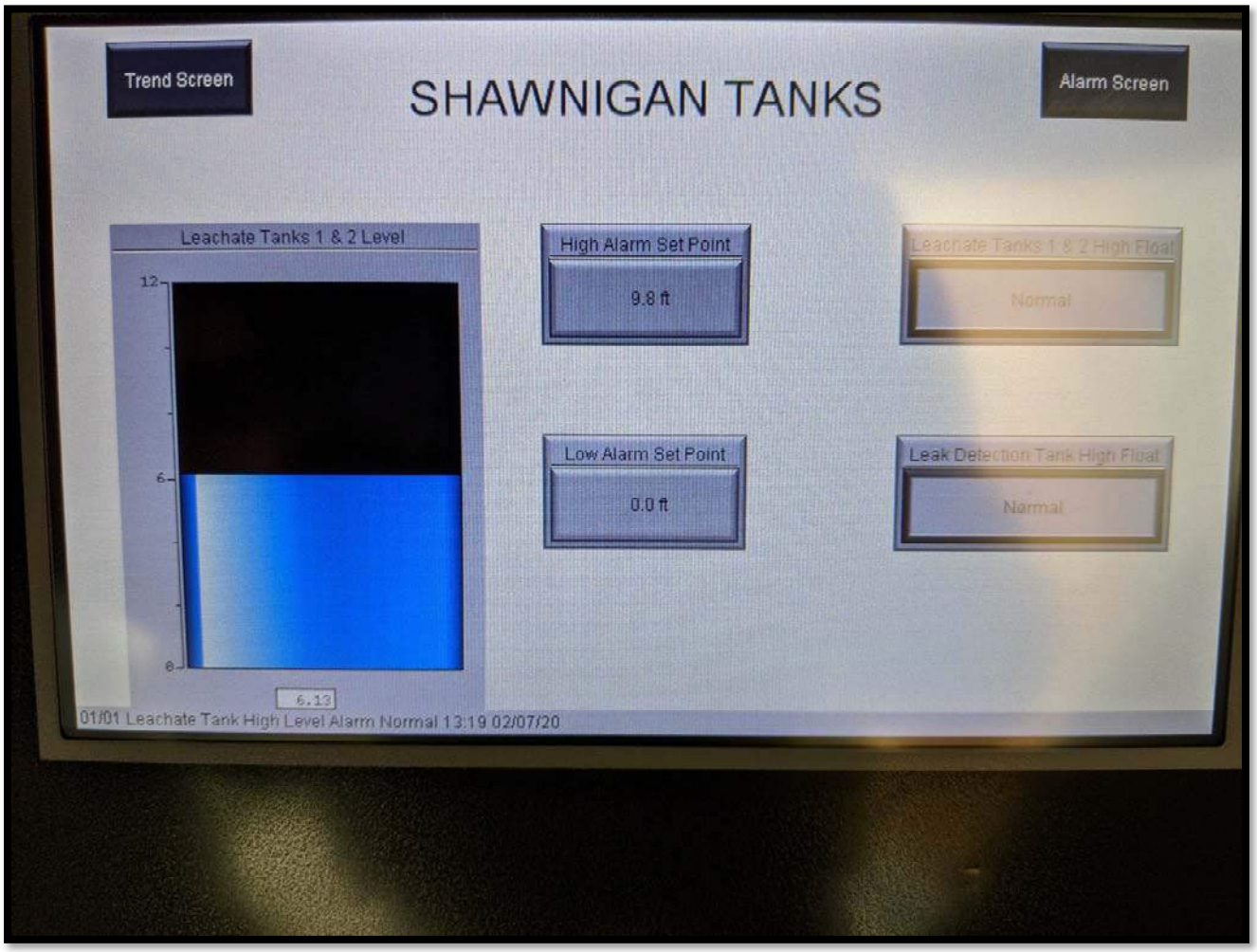
Islander Engineering Ltd (IEL) performed a site inspection on July 6, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items, if applicable.

Picture # 1: Overview of construction progress, looking west.

Picture # 2: Looking east towards an excavator loading previously stockpiled material into a rock truck for relocation along the east side of the PEA.

Picture # 3: Looking south along the east side of the PEA towards an excavator placing backfill material onto previously placed geofabric and drain rock..

Picture # 4: Looking east along the north end of the PEA along previously placed geofabric and drain rock material.



Picture # 5: Leachate display – 6.13 ft per tank.

Report prepared by:

Joel Clarkston, Grad Tech.
Islander Engineering Ltd.

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Rahim Gaidhar, GIT

Date: July 7, 2020

Time: 8:30AM – 4:00PM

Owner:
Cobble Hill Holdings Ltd.

Contractor:
Allterra Construction Ltd

Weather
Morning: Cloud

Afternoon: Cloud

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 7, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items.

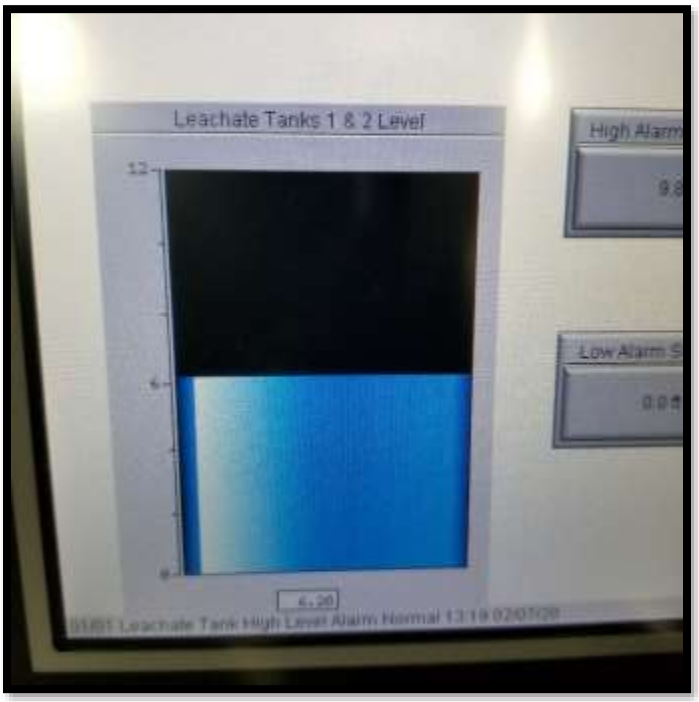
Picture # 1: Stockpile Location – South Stockpile

Picture # 2: Site – Looking Southwest

Picture # 3: Site – Looking West

Picture # 4: Soil Movement From the East Stockpile to the PEA Slopes

Picture # 5: Truck Ramp to PEA South Crest – Looking East



Picture # 6: Leachate Level – 6.20ft per Tank

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

IEL REPRESENTATIVE:

Rahim Gaidhar, GIT

Date: July 8, 2020

Time: 8:30AM – 4:00PM

Owner:
Cobble Hill Holdings Ltd.

Contractor:
Allterra Construction Ltd

Weather
Morning: Cloud

Afternoon: Cloud

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 8, 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items.

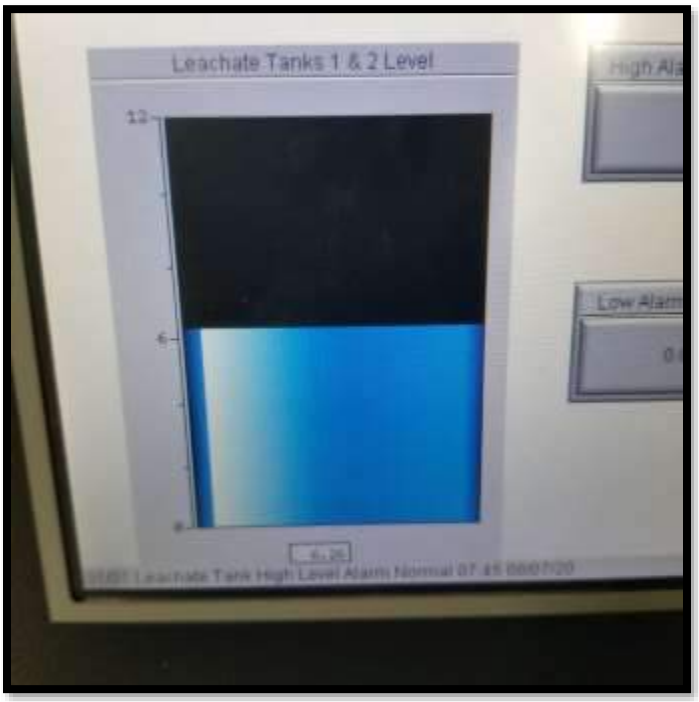
Picture # 1: Site – Looking Southwest

Picture # 2: Site – Looking West

Picture # 3: Soil Placement to Crest on the East Face – Looking South

Picture # 4: Soil Placement via Staggered Completion on the North Face – Looking East

Picture # 5: Stockpile Location – South Stockpile



Picture # 6: Leachate Level – 6.26ft per Tank

SITE INSPECTION REPORT

Cobble Hill Landfill Closure

PROJECT # : 2307

GEL REPRESENTATIVE:

Sean Babulic, EIT

Date: July 13 2020

Time: 8:30AM – 3:30PM

Owner:
Cobble Hill Holdings Ltd.

Contractor:
Allterra Construction Ltd

Weather
Morning: Cloudy

Afternoon: Cloudy

Construction Activities:

Islander Engineering Ltd (IEL) performed a site inspection on July 13 2020 at the Cobble Hill Landfill (Landfill) to assess the site construction progress and the implementation of the Closure Plan design. This report summarizes the Landfill site inspection findings and concludes by identifying action items, if applicable.

Picture # 1: Contractor stockpiling soils from 2251 Bear Mountain Parkway to the south of the PEA.

Picture # 2: View of soils from 2251 Bear Mountain Parkway. Generally sandy with some gravel and larger angular cobbles.

Picture # 3: Leachate levels = 6.56 ft.

Picture # 4: View of PEA from quarry access road.

Picture # 5: Construction of cap along eastern PEA face has reached peak of PEA liner.

Report prepared by:

Sean Babulic, EIT.
Islander Engineering Ltd.

Table 1: Analytical Results for Nutrients in Groundwater

Sample Location	CSR Standards[1]		MW19-02
As-built Well Depths to Bottom (mbgs)			**8.07m**
Sample ID			**0060390-01**
			19-02
Date Sampled	**Aquatic Life**	**Drinking Water**	**2020-06-01**
Physical Tests			
Conductivity (uS/cm)	-	-	660
Hardness (as CaCO3) mg/L	-	-	359
pH (pH Units)	-	-	7.65
Total Dissolved Solids mg/L	-	-	488
Turbidity (NTU)	-	-	0.98
Anions and Nutrients mg/L			
Alkalinity, Bicarbonate (as CaCO3)			202
Alkalinity, Carbonate (as CaCO3)			<1.0
Chloride (Cl)	**1500**	**250**	12.8
Fluoride (F)	**2 (H < 50)**	**1.5**	
	3 (H ≥ 50)		<0.10
Nitrate (as N)	**400**	**10**	0.735
Nitrite (as N) [2] Cl <2 mg/L	**0.2**	**3.2**	
Cl 2 - <4 mg/L	**0.4**		
Cl 4 - <6 mg/L	**0.6**		
Cl 6 - <8 mg/L	**0.8**		0.013
Cl 8 - <10 mg/L	**1**		
Cl ≥ 10 mg/L	**2**		
Sulfate (SO4)	**1000**	**500**	167

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Dissolved Metals in Groundwater

Sample Location	CSR Standards[1]		MW19-02
As-built Well Depths (mbgs)			8.07m
Sample ID			0060390-01
			19-02
Date Sampled	Aquatic Life	Drinking Water	2020-06-01
Physical Tests mg/L			
Hardness (as CaCO3)	-	-	359
Dissolved Metals mg/L			
Aluminum (Al)-Dissolved	-	9.5	<0.0050
Antimony (Sb)-Dissolved	0.2	0.006	<0.00020
Arsenic (As)-Dissolved	0.05	0.01	<0.00050
Barium (Ba)-Dissolved	10	1	0.0216
Beryllium (Be)-Dissolved	0.053	-	<0.00010
Bismuth (Bi)- Dissolved	-	-	<0.00010
Boron (B)-Dissolved	50	5	<0.0500
Cadmium (Cd)-Dissolved	0.0001 (H< 30)	0.005	
	0.0003 (H=30 -<90		
	0.0005 (H=90-<150		
	0.0006 (H=150-<210)		<0.000010
Calcium (Ca)-Dissolved	-	-	120
Chromium (Cr)-Dissolved	0.01	0.05	0.00113
Colbalt (Co)-Dissolved	0.04	-	<0.00010
Copper (Cu)-Dissolved	0.02 (H<50)	1	
	0.03 (H=50-<75)		
	0.04 (H=75-<100)		
	0.05 (H=100-<125)		
	0.06 (H=125-<150)		
	0.07 (H=150-<175)		
	0.08 (H=175-<200)		
	0.09 (H>200)		0.00292
Iron (Fe)-Dissolved	-	6.5	<0.010
Lead (Pb)-Dissolved	0.04 (H<50)	0.01	
	0.05 (H=50-<100)		
	0.06 (H=100-<200)		
	0.11 (H=200-<300)		
	0.16 (H>300)		<0.00020
Lithium (Li)-Dissolved	-	-	0.00022
Magnesium (Mg)-Dissolved	-	100	14.3
Manganese (Mn)-Dissolved	-	0.55	0.00534
Mercury (Hg)-Dissolved	0.001	0.001	-
Molybdenum (Mo)-Dissolved	10	0.25	0.00096
Nickel (Ni)-Dissolved	0.25 (H<60)	-	
	0.65 (H=60-<120)		
	1.1 (H=120-<180)		
	1.5 (H>=180)		<0.00040
Phosphorus(P)-Dissolved	-	-	<0.050
Potassium (K)-Dissolved	-	-	1.01
Selenium (Se)-Dissolved	0.01	0.01	0.00057
Silicon (Si)-Dissolved	-	-	4.9
Silver (Ag)-Dissolved	0.0005 (H<=100)	-	
	0.015 (H>100)		<0.000050
Sodium (Na)-Dissolved	-	200	11.8
Strontium (Sr)-Dissolved	-	-	0.321
Sulfur (S)-Dissolved	-	-	62.5
Tellurium (Te)-Dissolved	-	-	<0.00050
Thallium (Tl)-Dissolved	0.003	-	<0.000020
Thorium (Th)-Dissolved	-	-	<0.00010
Tin (Sn)-Dissolved	-	-	<0.00020
Titanium (Ti)-Dissolved	1	-	<0.0050
Tungsten (W)-Dissolved			0.0085
Uranium (U)-Dissolved	3	0.02	0.00238
Vanadium (V)-Dissolved	-	-	<0.0010
Zinc (Zn)-Dissolved	0.075 (H<90)	5	
	0.150 (H=90-<100)		
	0.900 (H=100-<200)		
	1.650 (H=200-<300)		
	2.4 (H=300-<400)		<0.0040
Zirconium (Zr)-Dissolved	-	-	<0.00010

Notes: Refer to Table Endnotes (attached)

Table 3: Analytical Results for Hydrocarbons and PAHs in Groundwater

Sample Location	CSR Standards[1]		MW19-02
As-built Well Depths (mbgs)			8.07m
Sample ID			0060390-01
			19-02
Date Sampled	Aquatic Life	Drinking Water	2020-06-01
Turbidity (NTU)	-	-	0.98
Hydrocarbons ug/L			
EPH10-19	**5000**	**5000**	<250
EPH10-19 (SG)	**5000**	**5000**	
EPH19-32	-	-	<250
EPH19-32 (SG)	-	-	
LEPH	**500**	-	<250
HEPH	-	-	<250
Polycyclic Aromatic Hydrocarbons ug/L			
Acenaphthene	**60**	-	<0.050
Acenaphthylene	-	-	<0.200
Acridine	**0.5**	-	<0.050
Anthracene	**1**	-	<0.010
Benz(a)anthracene	**1**	-	<0.010
Benzo(a)pyrene	**0.1**	**0.01**	<0.010
Benzo(b)fluoranthene	-	-	-
Benzo(b+j)fluoranthene	-	-	<0.050
Benzo(g,h,i)perylene	-	-	<0.050
Benzo(k)fluoranthene	-	-	<0.050
2-Chloronaphthalene	-		<0.100
Chrysene	**1**	-	<0.050
Dibenz(a,h)anthracene	-	-	<0.010
Fluoranthene	**2**	-	<0.030
Fluorene	**120**	-	<0.050
Indeno(1,2,3-c,d)pyrene	-	-	<0.050
1-Methylnaphthalene	-		<0.100
2-Methylnaphthalene	-		<0.100
Naphthalene	**10**	-	<0.200
Phenanthrene	**3**	-	<0.100
Pyrene	**0.2**	-	<0.020
Quinoline	**34**	-	<0.050

Notes: Refer to Table Endnotes (attached)

Analytical Table Footnotes: Analytical Results for Groundwater and Seepage Blanket Water

All concentrations in mg/L, except pH or as indicated.

"<"	less than the laboratory detection limit indicated.
"-"	means not analyzed or no standard or guideline applies.
*	RPDs are not normally calculated where one or more concentrations are less than five times MDL.
(1)	A compendium of CSR Schedules 6 and 10 guidelines with respect to Drinking Water (DW) and Freshwater Aquatic Life (AW).
(2)	Standard is dissolved Chloride-dependent.

BOLD, UNDERLINE	Laboratory Detection Limit exceeds one or more applicable Standard
BLUE SHADING	Concentration greater than CSR Aquatic Life (AW) Standard
BOLD, BEIGE TEXT	Concentration greater than CSR Drinking Water (DW) Standard

Table 1: Analytical Results for Nutrients in Surface Water			SHA-SW-1
Laboratory ID	**BC DRINKING WATER QUALITY GUIDELINES**	**BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES**	**0060390-02**
Sample ID			**SW1**
Date Sampled/Time			**2020-06-01**
Physical Tests			
Total Dissolved Solids (mg/L)	-	-	274
Total Suspended Solids (mg/L)	-	**25 mg/L above background (24-hr during clear flow)**	<2.0
pH	**7-10.5**	**6.5-9**	7.58
Conductivity (uS/cm)	-	-	406
Hardness (as CaCO3)	-	-	207
Turbidity (NTU)	**Δ1 NTU**	**8 NTU above background (24-hr during clear flow**	0.14
Anions and Nutrients mg/L			
Alkalinity Bicarbonate (as CaCO3)	**<10 high sensitivity to acid inputs 10-20 moderate sensitivity to acid inputs >20 low sensitivity to acid inputs**		143
Alkalinity Carbonate (as CaCO3)			<1.0
Acid Sensitivity			Low
Chloride (Cl)	**250 mg/L**	**600 mg/L (instant max), 150 mg/L (30-day average)**	8.96
Fluoride (F)	**1.5 mg/L (instant max) 1.0 mg/L (30-day average)**	**0.4 (Hardness <10mg/L)**	<0.10
		Hardness-Dependent AW (Hardness is >10mg/L)[1]	0.30
Nitrate (as N)	**45 mg/L**	**32.8 mg/L (instant maximum) 3.0 mg/L (30-day average)**	0.185
Nitrite (as N) [2]	**3 mg/L**	**Cl > 10 mg/L 0.6 mg/L (MAX), 0.2 mg/L (30-day average)**	<0.010
Sulfate (SO4) H 0-30 mg/L	**500 mg/L**	**128 mg/L 30-day average)**	
H 31 - 75 mg/L		**218 mg/L (30-day average)**	
H 76 - 180 mg/L		**309 mg/L (30-day average)**	
H 181 - 250 mg/L		**429 mg/L (30-day average)**	80.6
H > 250 mg/L		**TBD**	

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Total Metals in Surface Water			SHA-SW-1
Laboratory ID	**BC DRINKING WATER QUALITY GUIDELINES**	**BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES**	**0060390-02**
Sample ID			**SW1**
Date Sampled/Time			**2020-06-01**
Physical Tests			
Hardness (as CaCO3) (mg/L)	-	-	207
pH	**7-10.5**	**6.5-9**	7.58
Total Metals (mg/L)			
Aluminum (Al)-Total	**0.2**	-	0.0099
Antimony (Sb)-Total	-	-	<0.00020
Arsenic (As)-Total	**0.01**	**0.005**	<0.00050
Barium (Ba)-Total	-	-	0.0125
Beryllium (Be)-Total	-	-	<0.00010
Bismuth, total	-	-	<0.00010
Boron (B)-Total	**5**	**1.2**	0.0122
Cadmium (Cd)-Total	-	-	<0.000010
Calcium (Ca)-Total	-	-	73.2
Chromium (Cr)-Total	-	-	<0.00050
Chromium (Cr(III))	-	-	-
Chromium (Cr(VI))	-	-	-
Cobalt (Co)-Total	-	**0.110 (Short Term), 0.004 (Long Term Average)**	<0.00010
Copper (Cu)-Total	**0.5**	**Hardness-Dependent[7]**	0.00109
		Hardness-Dependent BCAWQG to protect AW [3] (instant	0.0215
		Hardness-Dependent BCAWQG to protect AW [3] (30-d average)	0.0083
Iron (Fe)-Total	-	**1**	0.015
Lead (Pb)-Total	**0.01**	**Hardness-Dependent[3]**	<0.00020
		Hardness-Dependent BCAWQG to protect AW [3] (instant max)	0.2061
		Hardness-Dependent BCAWQG to protect AW [3] (30-d average)	0.0114
Lithium (Li)-Total	-	-	0.00021
Magnesium (Mg)-Total	-	-	10.2
Manganese (Mn)-Total	-	**Hardness Dependent [3]**	0.00727
		Hardness-Dependent BCAWQG to protect AW [3] (instant max)	2.8
		Hardness-Dependent BCAWQG to protect AW [3] (30-d average)	1.5
Mercury (Hg)-Total	**0.001**	**0.00002**	-
Molybdenum (Mo)-Total	**0.25**	**≤1 (instant max) 2 (30-d average)**	0.00077
Nickel (Ni)-Total	-	0.025 (Hardness-Dependent [3] BCAWWQG to protect AW H<60mg/L)	0.00043
		Calculated Hardness-Dependent [3] BCAWWQG to protect AW 60≤H≤180 mg/L CaCO3	0.166
Phosphorus(P)-Total	-	-	<0.050
Potassium (K)-Total	-	-	0.83
Selenium (Se)-Total	**0.01**	**0.002**	<0.00050
Silicon (Si)-Total	-	-	6
Silver (Ag)-Total	-	**HARDNESS <100mg/L 0.0001 (SHORT TERM), 0.00005 (LONG TERM), HARDNESS >100mg/L 0.003 (SHORT TERM), 0.0015 (LONG TERM)**	<0.000050
Sodium (Na)-Total	-	-	7.86
Strontium (Sr)-Total	-	-	0.191
Sulfur (S)-Total	-	-	34.1
Tellurium (Te)-Total	-	-	<0.00050
Thallium (Tl)-Total	-	-	<0.000020
Thorium (Th)-Total	-	-	<0.00010
Tin (Sn)-Total	-	-	<0.00020
Titanium (Ti)-Total	-	-	<0.0050
Tungsten (W)-Total			<0.0010
Uranium (U)-Total	-	-	0.00116
Vanadium (V)-Total	-	-	0.0015
Zinc (Zn)-Total	**5.0**	**Hardness >90 mg/L**	<0.0040
		Hardness-Dependent BCAWQG to protect AW[3](instant max)	0.121
		Hardness-Dependent BCAWQG to protect AW [3] (30-d average)	0.095
Zirconium (Zr)-Total	-	-	<0.00010

Table 3: Analytical Results for Dissolved Metals in Surface Water			SHA-SW-1
Laboratory ID	**BC DRINKING WATER QUALITY GUIDELINES**	**BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES**	**0060390-02**
Sample ID			**SW1**
Date Sampled/Time			**2020-06-01**
Physical Tests			
Hardness (as CaCO3) (mg/L)	-	-	207
pH	**7-10.5**	**6.5-9**	7.58
Dissolved Metals (mg/L)			
Aluminum (Al)-Dissolved	-	**0.05 (30-day average where median pH > 6.5) 0.1 (maximum where instantaneous pH > 6.5) "**" indicates pH-dependent maximum where instant pH ≤ 6.5**	<0.0050
		pH/Hardness Dependent BCAWQG to protect AW [4] (instant max)	0.474
		pH/Hardness Dependent BCAWQG to protect AW [4] (30-d Mean)	0.594
Antimony (Sb)-Dissolved	-	-	<0.00020
Arsenic (As)-Dissolved	-	-	<0.00050
Barium (Ba)-Dissolved	-	-	0.0116
Beryllium (Be)-Dissolved	-	-	<0.00010
Bismuth (Bi)-Dissolved	-	-	<0.00010
Boron (B)-Dissolved	-	-	0.0152
Cadmium (Cd)-Dissolved	-	**Hardness-Dependent**[3]	<0.000010
	-	Calculated Hardness-Dependent [3] BCAWWQG to protect AW (short-term max) e[1.03 * ln(Hss) - 5.274] ug/L H<455mg/L	0.00124
	-	Calculated Hardness-Dependent BCAWQG to protect AW [3] (long-term max) e[0.736 * ln(Hss) - 4.943] ug/L H<285mg/L	0.00036
Calcium (Ca)-Dissolved	-	**up to 4, highly sensitive to acid inputs 4 to 8, moderately sensitive over 8 low sensitivity**	67.4 Low
Chromium (Cr)-Dissolved	-	-	0.00107
Cobalt (Co)-Dissolved	-	-	<0.00010
Copper (Cu)-Dissolved	-	-	0.00659
Iron (Fe)-Dissolved	-	**0.35**	<0.010
Lead (Pb)-Dissolved	-	-	0.0002
Lithium, dissolved	-		0.00011
Magnesium (Mg)-Dissolved	-	-	9.41
Manganese (Mn)-Dissolved	-	-	0.00226
Mercury (Hg)-Dissolved	-	-	-
Molybdenum (Mo)-Dissolved	-	-	0.00062
Nickel (Ni)-Dissolved	-		<0.00040
Phosphorus (P)-Dissolved	-		<0.050
Potassium (K)-Dissolved	-	-	0.72
Selenium (Se)-Dissolved	-	-	<0.00050
Silicon (Si)-Dissolved	-	-	5.7
Silver (Ag)-Dissolved	-	-	<0.000050
Sodium (Na)-Dissolved	-	-	7.37
Strontium (Sr)-dissolved	-	-	0.169
Sulfur (S)-Dissolved	-	-	27.3
Tellurium (Te)-Dissolved	-	-	<0.00050
Thallium (Ti)-Dissolved	-	-	<0.000020
Thorium (Th)-Dissolved	-	-	<0.00010
Tin (Sn)-Dissolved	-	-	<0.00020
Titanium (Ti)-Dissolved	-	-	<0.0050
Tungsten (W)-Dissolved			<0.0010
Uranium (U)-Dissolved	-	-	0.000981
Vanadium (V)-Dissolved	-	-	0.0014
Zinc (Zn)-Dissolved	-	-	<0.0040
Zirconium (Zr)-Dissolved	-	-	<0.00010

Notes: Refer to Table Endnotes (attached)

Table 4: Analytical Results for Hydrocarbons and PAHs in Surface Water			SHA-SW-1
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	0060390-02
Sample ID			SW1
Date Sampled/ Time			2020-06-01
Hydrocarbons ug/L			
LEPH	-	-	<250
HEPH	-	-	<250
Polycyclic Aromatic			
Acenaphthene	-	**6 (LONG TERM)**	<0.050
Acenaphthylene	-	-	<0.200
Acridine	-	**3 (LONG TERM), 0.05 (PHOTOTOXIC)**	<0.050
Anthracene	-	**4 (LONG TERM), 0.1 (PHOTOTOXIC)**	<0.010
Benz(a)anthracene	**0.01**	**0.1 (LONG TERM), 0.1 (PHOTOTOXIC)**	<0.010
Benzo(a)pyrene	-	**0.01 (LONG TERM)**	<0.010
Benzo(b)fluoranthene	-	-	-
Benzo(b+j)fluoranthene	-	-	<0.050
Benzo(g,h,i)perylene	-	-	<0.050
Benzo(k)fluoranthene	-	-	<0.050
2-Chloronaphthalene			<0.100
Chrysene	-	-	<0.050
Dibenz(a,h)anthracene	-	-	<0.010
Fluoranthene	-	**4 (LONG TERM), 0.2 (PHOTOTOXIC)**	<0.030
Fluorene	-	**12 (LONG TERM)**	<0.050
Indeno(1,2,3-c,d)pyrene	-	-	<0.050
1-Methylnaphthalene			<0.100
2-Methylnaphthalene			<0.100
Naphthalene	-	**1 (LONG TERM)**	<0.200
Phenanthrene	-	**0.3 (LONG TERM)**	<0.100
Pyrene	-	**0.02 (PHOTOTOXIC)**	<0.020
Quinoline	-	-	<0.050

Notes: Refer to Table Endnotes (attached)

Analytical Table Footnotes: Leachate and Surface Water

	All concentrations in mg/L, except pH or as indicated.
"<"	less than the laboratory detection limit indicated.
"-"	means not analyzed or no standard or guideline applies.
*	RPDs are not normally calculated where one or more concentrations are less than five times RDL.
(1)	Guideline of 15 mg/L Pt for Drinking Water. Once background levels are established, colour should also not exceed 5 mg/L above background, to protect for Aquatic Life. This is considered a clearwater system (background less than 20 mg/L Pt.)
(2)	Nitrite BCAWWQG Guideline is Chloride dependent
(3)	Standard is calculated based on the hardness dependent BCAWWQG formula, and has been calculated and shown for each individual result
(4)	pH-dependent maximum where instant pH < 6.5

BOLD, UNDERLINE	Laboratory Detection Limit exceeds one or more applicable Standard
BOLD, BLUE SHADING	Concentration greater than BCAWWQG Guideline
BOLD, BEIGE SHADING	Concentration greater than BCAWWQG Chronic Guideline
BOLD, GREEN SHADING	Concentration greater than BC Ministry of Environment Drinking Water Sources

CERTIFICATE OF ANALYSIS

REPORTED TO	Allterra Construction 2158 Millstream Road Victoria, BC V9B 6H4		
ATTENTION	Rahim Gaidhar	**WORK ORDER**	0060390
PO NUMBER	17-932	**RECEIVED / TEMP**	2020-06-03 10:40 / 9°C
PROJECT	17-932	**REPORTED**	2020-06-25 15:03
PROJECT INFO		**COC NUMBER**	B75049

Introduction:

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

Big Picture Sidekicks

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

We've Got Chemistry

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

Ahead of the Curve

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

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

Authorized By:

Nicole Yipp
Team Lead, Client Service

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO Allterra Construction
PROJECT 17-932

WORK ORDER 0060390
REPORTED 2020-06-25 15:03

Analyte	Result	RL	Units	Analyzed	Qualifier
19-02 (0060390-01) | Matrix: Water | Sampled: 2020-06-01					
Anions					
Chloride	**12.8**	0.10	mg/L	2020-06-04	
Fluoride	< 0.10	0.10	mg/L	2020-06-04	
Nitrate (as N)	**0.735**	0.010	mg/L	2020-06-04	
Nitrite (as N)	**0.013**	0.010	mg/L	2020-06-04	
Sulfate	**167**	1.0	mg/L	2020-06-04	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2020-06-07	
EPHw19-32	< 250	250	µg/L	2020-06-07	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*85*	*60-126*	%	*2020-06-07*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**359**	0.500	mg/L	N/A	
Dissolved Metals					
Lithium, dissolved	**0.00022**	0.00010	mg/L	2020-06-21	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2020-06-21	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2020-06-21	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2020-06-21	
Barium, dissolved	**0.0216**	0.0050	mg/L	2020-06-21	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2020-06-21	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2020-06-21	
Boron, dissolved	< 0.0500	0.0500	mg/L	2020-06-21	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2020-06-21	
Calcium, dissolved	**120**	0.20	mg/L	2020-06-21	
Chromium, dissolved	**0.00113**	0.00050	mg/L	2020-06-21	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2020-06-21	
Copper, dissolved	**0.00292**	0.00040	mg/L	2020-06-21	
Iron, dissolved	< 0.010	0.010	mg/L	2020-06-21	
Lead, dissolved	< 0.00020	0.00020	mg/L	2020-06-21	
Magnesium, dissolved	**14.3**	0.010	mg/L	2020-06-21	
Manganese, dissolved	**0.00534**	0.00020	mg/L	2020-06-21	
Molybdenum, dissolved	**0.00096**	0.00010	mg/L	2020-06-21	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2020-06-21	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2020-06-21	
Potassium, dissolved	**1.01**	0.10	mg/L	2020-06-21	
Selenium, dissolved	**0.00057**	0.00050	mg/L	2020-06-21	
Silicon, dissolved	**4.9**	1.0	mg/L	2020-06-21	
Silver, dissolved	< 0.000050	0.000050	mg/L	2020-06-21	
Sodium, dissolved	**11.8**	0.10	mg/L	2020-06-21	
Strontium, dissolved	**0.321**	0.0010	mg/L	2020-06-21	
Sulfur, dissolved	**62.5**	3.0	mg/L	2020-06-21	

TEST RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Analyzed	Qualifier
19-02 (0060390-01) | Matrix: Water | Sampled: 2020-06-01, Continued					
Dissolved Metals, Continued					
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2020-06-21	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2020-06-21	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2020-06-21	
Tin, dissolved	< 0.00020	0.00020	mg/L	2020-06-21	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2020-06-21	
Tungsten, dissolved	**0.0085**	0.0010	mg/L	2020-06-21	
Uranium, dissolved	**0.00238**	0.000020	mg/L	2020-06-21	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2020-06-21	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2020-06-21	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2020-06-21	
General Parameters					
Alkalinity, Total (as CaCO3)	**202**	1.0	mg/L	2020-06-05	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2020-06-05	
Alkalinity, Bicarbonate (as CaCO3)	**202**	1.0	mg/L	2020-06-05	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2020-06-05	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2020-06-05	
Conductivity (EC)	**660**	2.0	µS/cm	2020-06-05	
pH	**7.65**	0.10	pH units	2020-06-05	HT2
Solids, Total Dissolved	**488**	15	mg/L	2020-06-05	
Solids, Total Suspended	< 2.0	2.0	mg/L	2020-06-05	
Turbidity	**0.98**	0.10	NTU	2020-06-04	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2020-06-08	
Acenaphthylene	< 0.200	0.200	µg/L	2020-06-08	
Acridine	< 0.050	0.050	µg/L	2020-06-08	
Anthracene	< 0.010	0.010	µg/L	2020-06-08	
Benz(a)anthracene	< 0.010	0.010	µg/L	2020-06-08	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2020-06-08	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2020-06-08	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2020-06-08	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2020-06-08	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2020-06-08	
Chrysene	< 0.050	0.050	µg/L	2020-06-08	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2020-06-08	
Fluoranthene	< 0.030	0.030	µg/L	2020-06-08	
Fluorene	< 0.050	0.050	µg/L	2020-06-08	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2020-06-08	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2020-06-08	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2020-06-08	
Naphthalene	< 0.200	0.200	µg/L	2020-06-08	
Phenanthrene	< 0.100	0.100	µg/L	2020-06-08	
Pyrene	< 0.020	0.020	µg/L	2020-06-08	

TEST RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Analyzed	Qualifier
19-02 (0060390-01) | Matrix: Water | Sampled: 2020-06-01, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Quinoline	< 0.050	0.050	µg/L	2020-06-08	
Surrogate: Acridine-d9	*89*	*50-140*	%	*2020-06-08*	
Surrogate: Naphthalene-d8	*101*	*50-140*	%	*2020-06-08*	
Surrogate: Perylene-d12	*88*	*50-140*	%	*2020-06-08*	
SW-01 (0060390-02) | Matrix: Water | Sampled: 2020-06-01					
Anions					
Chloride	**8.96**	0.10	mg/L	2020-06-04	
Fluoride	< 0.10	0.10	mg/L	2020-06-04	
Nitrate (as N)	**0.185**	0.010	mg/L	2020-06-04	
Nitrite (as N)	< 0.010	0.010	mg/L	2020-06-04	
Sulfate	**80.6**	1.0	mg/L	2020-06-04	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2020-06-07	
EPHw19-32	< 250	250	µg/L	2020-06-07	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*82*	*60-126*	%	*2020-06-07*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**207**	0.500	mg/L	N/A	
Dissolved Metals					
Lithium, dissolved	**0.00011**	0.00010	mg/L	2020-06-07	
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2020-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2020-06-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2020-06-07	
Barium, dissolved	**0.0116**	0.0050	mg/L	2020-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2020-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2020-06-07	
Boron, dissolved	**0.0152**	0.0500	mg/L	2020-06-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2020-06-07	
Calcium, dissolved	**67.4**	0.20	mg/L	2020-06-07	
Chromium, dissolved	**0.00107**	0.00050	mg/L	2020-06-07	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2020-06-07	
Copper, dissolved	**0.00659**	0.00040	mg/L	2020-06-07	
Iron, dissolved	< 0.010	0.010	mg/L	2020-06-07	
Lead, dissolved	**0.00020**	0.00020	mg/L	2020-06-07	
Magnesium, dissolved	**9.41**	0.010	mg/L	2020-06-07	
Manganese, dissolved	**0.00226**	0.00020	mg/L	2020-06-07	
Molybdenum, dissolved	**0.00062**	0.00010	mg/L	2020-06-07	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2020-06-07	

TEST RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-01 (0060390-02) | Matrix: Water | Sampled: 2020-06-01, Continued					
Dissolved Metals, Continued					
Phosphorus, dissolved	< 0.050	0.050	mg/L	2020-06-07	
Potassium, dissolved	**0.72**	0.10	mg/L	2020-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2020-06-07	
Silicon, dissolved	**5.7**	1.0	mg/L	2020-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2020-06-07	
Sodium, dissolved	**7.37**	0.10	mg/L	2020-06-07	
Strontium, dissolved	**0.169**	0.0010	mg/L	2020-06-07	
Sulfur, dissolved	**27.3**	3.0	mg/L	2020-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2020-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2020-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2020-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2020-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2020-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2020-06-07	
Uranium, dissolved	**0.000981**	0.000020	mg/L	2020-06-07	
Vanadium, dissolved	**0.0014**	0.0010	mg/L	2020-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2020-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2020-06-07	
General Parameters					
Alkalinity, Total (as CaCO3)	**143**	1.0	mg/L	2020-06-05	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2020-06-05	
Alkalinity, Bicarbonate (as CaCO3)	**143**	1.0	mg/L	2020-06-05	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2020-06-05	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2020-06-05	
Conductivity (EC)	**406**	2.0	µS/cm	2020-06-05	
pH	**7.58**	0.10	pH units	2020-06-05	HT2
Solids, Total Dissolved	**274**	15	mg/L	2020-06-05	
Solids, Total Suspended	< 2.0	2.0	mg/L	2020-06-05	
Turbidity	**0.14**	0.10	NTU	2020-06-04	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2020-06-08	
Acenaphthylene	< 0.200	0.200	µg/L	2020-06-08	
Acridine	< 0.050	0.050	µg/L	2020-06-08	
Anthracene	< 0.010	0.010	µg/L	2020-06-08	
Benz(a)anthracene	< 0.010	0.010	µg/L	2020-06-08	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2020-06-08	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2020-06-08	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2020-06-08	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2020-06-08	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2020-06-08	
Chrysene	< 0.050	0.050	µg/L	2020-06-08	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2020-06-08	

TEST RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-01 (0060390-02) | Matrix: Water | Sampled: 2020-06-01, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Fluoranthene	< 0.030	0.030	µg/L	2020-06-08	
Fluorene	< 0.050	0.050	µg/L	2020-06-08	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2020-06-08	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2020-06-08	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2020-06-08	
Naphthalene	< 0.200	0.200	µg/L	2020-06-08	
Phenanthrene	< 0.100	0.100	µg/L	2020-06-08	
Pyrene	< 0.020	0.020	µg/L	2020-06-08	
Quinoline	< 0.050	0.050	µg/L	2020-06-08	
Surrogate: Acridine-d9	*92*	*50-140*	%	*2020-06-08*	
Surrogate: Naphthalene-d8	*112*	*50-140*	%	*2020-06-08*	
Surrogate: Perylene-d12	*111*	*50-140*	%	*2020-06-08*	
Total Metals					
Aluminum, total	**0.0099**	0.0050	mg/L	2020-06-09	
Antimony, total	< 0.00020	0.00020	mg/L	2020-06-09	
Arsenic, total	< 0.00050	0.00050	mg/L	2020-06-09	
Barium, total	**0.0125**	0.0050	mg/L	2020-06-09	
Beryllium, total	< 0.00010	0.00010	mg/L	2020-06-09	
Bismuth, total	< 0.00010	0.00010	mg/L	2020-06-09	
Boron, total	**0.0122**	0.0500	mg/L	2020-06-09	
Cadmium, total	< 0.000010	0.000010	mg/L	2020-06-09	
Calcium, total	**73.2**	0.20	mg/L	2020-06-09	
Chromium, total	< 0.00050	0.00050	mg/L	2020-06-09	
Cobalt, total	< 0.00010	0.00010	mg/L	2020-06-09	
Copper, total	**0.00109**	0.00040	mg/L	2020-06-09	
Iron, total	**0.015**	0.010	mg/L	2020-06-09	
Lead, total	< 0.00020	0.00020	mg/L	2020-06-09	
Lithium, total	**0.00021**	0.00010	mg/L	2020-06-09	
Magnesium, total	**10.2**	0.010	mg/L	2020-06-09	
Manganese, total	**0.00727**	0.00020	mg/L	2020-06-09	
Molybdenum, total	**0.00077**	0.00010	mg/L	2020-06-09	
Nickel, total	**0.00043**	0.00040	mg/L	2020-06-09	
Phosphorus, total	< 0.050	0.050	mg/L	2020-06-09	
Potassium, total	**0.83**	0.10	mg/L	2020-06-09	
Selenium, total	< 0.00050	0.00050	mg/L	2020-06-09	
Silicon, total	**6.0**	1.0	mg/L	2020-06-09	
Silver, total	< 0.000050	0.000050	mg/L	2020-06-09	
Sodium, total	**7.86**	0.10	mg/L	2020-06-09	
Strontium, total	**0.191**	0.0010	mg/L	2020-06-09	
Sulfur, total	**34.1**	3.0	mg/L	2020-06-09	
Tellurium, total	< 0.00050	0.00050	mg/L	2020-06-09	
Thallium, total	< 0.000020	0.000020	mg/L	2020-06-09	

TEST RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-01 (0060390-02) | Matrix: Water | Sampled: 2020-06-01, Continued					
Total Metals, Continued					
Thorium, total	< 0.00010	0.00010	mg/L	2020-06-09	
Tin, total	< 0.00020	0.00020	mg/L	2020-06-09	
Titanium, total	< 0.0050	0.0050	mg/L	2020-06-09	
Tungsten, total	< 0.0010	0.0010	mg/L	2020-06-09	
Uranium, total	**0.00116**	0.000020	mg/L	2020-06-09	
Vanadium, total	**0.0015**	0.0010	mg/L	2020-06-09	
Zinc, total	< 0.0040	0.0040	mg/L	2020-06-09	
Zirconium, total	< 0.00010	0.00010	mg/L	2020-06-09	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
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Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2017)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2017)	Ion Chromatography	✓	Kelowna
Conductivity in Water	SM 2510 B (2017)	Conductivity Meter	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	✓	Richmond
Hardness in Water	SM 2340 B (2017)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
pH in Water	SM 4500-H+ B (2017)	Electrometry	✓	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	✓	Richmond
Solids, Total Dissolved in Water	SM 2540 C* (2017)	Gravimetry (Dried at 103-105C)	✓	Kelowna
Solids, Total Suspended in Water	SM 2540 D* (2017)	Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2* / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2017)	Nephelometry	✓	Kelowna

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

Glossary of Terms:

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

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

General Comments:

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

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:nyipp@caro.ca

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

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

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

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

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B0F0370										
Blank (B0F0370-BLK1)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B0F0370-BLK2)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B0F0370-BLK3)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B0F0370-BS1)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Chloride	16.1	0.10	mg/L	16.0		101	90-110			
Fluoride	4.00	0.10	mg/L	4.00		100	88-108			
Nitrate (as N)	4.01	0.010	mg/L	4.00		100	90-110			
Nitrite (as N)	2.11	0.010	mg/L	2.00		105	85-115			
Sulfate	16.0	1.0	mg/L	16.0		100	90-110			
LCS (B0F0370-BS2)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Chloride	16.0	0.10	mg/L	16.0		100	90-110			
Fluoride	4.03	0.10	mg/L	4.00		101	88-108			
Nitrate (as N)	4.01	0.010	mg/L	4.00		100	90-110			
Nitrite (as N)	2.05	0.010	mg/L	2.00		102	85-115			
Sulfate	16.0	1.0	mg/L	16.0		100	90-110			
LCS (B0F0370-BS3)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Chloride	16.2	0.10	mg/L	16.0		101	90-110			
Fluoride	4.06	0.10	mg/L	4.00		101	88-108			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B0F0370, Continued										
LCS (B0F0370-BS3), Continued				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Nitrate (as N)	3.99	0.010	mg/L	4.00		100	90-110			
Nitrite (as N)	1.99	0.010	mg/L	2.00		100	85-115			
Sulfate	16.0	1.0	mg/L	16.0		100	90-110			
BCMOE Aggregate Hydrocarbons, Batch B0F0579										
Blank (B0F0579-BLK1)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*381*		*µg/L*	444		*86*	*60-126*			
LCS (B0F0579-BS2)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
EPHw10-19	12900	250	µg/L	15500		83	70-117			
EPHw19-32	18500	250	µg/L	22200		83	70-113			
Surrogate: 2-Methylnonane (EPH/F2-4)	*393*		*µg/L*	444		*88*	*60-126*			
LCS Dup (B0F0579-BSD2)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
EPHw10-19	14600	250	µg/L	15500		95	70-117	13	20	
EPHw19-32	19600	250	µg/L	22200		88	70-113	5	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*402*		*µg/L*	444		*90*	*60-126*			
Dissolved Metals, Batch B0F0551										
Blank (B0F0551-BLK1)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0050	0.0050	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B0F0551, Continued										
Blank (B0F0551-BLK1), Continued				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0010	0.0010	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
Blank (B0F0551-BLK2)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0050	0.0050	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0010	0.0010	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B0F0551-BS1)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Lithium, dissolved	0.0201	0.00010	mg/L	0.0200		100	80-120			
Aluminum, dissolved	0.0188	0.0050	mg/L	0.0199		94	80-120			
Antimony, dissolved	0.0187	0.00020	mg/L	0.0200		93	80-120			
Arsenic, dissolved	0.0198	0.00050	mg/L	0.0200		99	80-120			
Barium, dissolved	0.0193	0.0050	mg/L	0.0198		97	80-120			
Beryllium, dissolved	0.0199	0.00010	mg/L	0.0198		101	80-120			
Bismuth, dissolved	0.0203	0.00010	mg/L	0.0200		102	80-120			
Boron, dissolved	0.0201	0.0050	mg/L	0.0200		101	80-120			
Cadmium, dissolved	0.0194	0.000010	mg/L	0.0199		98	80-120			
Calcium, dissolved	2.14	0.20	mg/L	2.02		106	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B0F0551, Continued										
LCS (B0F0551-BS1), Continued				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Chromium, dissolved	0.0196	0.00050	mg/L	0.0198		99	80-120			
Cobalt, dissolved	0.0193	0.00010	mg/L	0.0199		97	80-120			
Copper, dissolved	0.0199	0.00040	mg/L	0.0200		100	80-120			
Iron, dissolved	1.98	0.010	mg/L	2.02		98	80-120			
Lead, dissolved	0.0210	0.00020	mg/L	0.0199		106	80-120			
Magnesium, dissolved	2.12	0.010	mg/L	2.02		105	80-120			
Manganese, dissolved	0.0190	0.00020	mg/L	0.0199		95	80-120			
Molybdenum, dissolved	0.0186	0.00010	mg/L	0.0200		93	80-120			
Nickel, dissolved	0.0199	0.00040	mg/L	0.0200		99	80-120			
Phosphorus, dissolved	1.88	0.050	mg/L	2.00		94	80-120			
Potassium, dissolved	2.16	0.10	mg/L	2.02		107	80-120			
Selenium, dissolved	0.0193	0.00050	mg/L	0.0200		97	80-120			
Silicon, dissolved	2.0	1.0	mg/L	2.00		100	80-120			
Silver, dissolved	0.0193	0.000050	mg/L	0.0200		96	80-120			
Sodium, dissolved	2.12	0.10	mg/L	2.02		105	80-120			
Strontium, dissolved	0.0192	0.0010	mg/L	0.0200		96	80-120			
Sulfur, dissolved	5.2	3.0	mg/L	5.00		104	80-120			
Tellurium, dissolved	0.0186	0.00050	mg/L	0.0200		93	80-120			
Thallium, dissolved	0.0196	0.000020	mg/L	0.0199		99	80-120			
Thorium, dissolved	0.0186	0.00010	mg/L	0.0200		93	80-120			
Tin, dissolved	0.0188	0.00020	mg/L	0.0200		94	80-120			
Titanium, dissolved	0.0183	0.0050	mg/L	0.0200		92	80-120			
Tungsten, dissolved	0.0193	0.0010	mg/L	0.0200		96	80-120			
Uranium, dissolved	0.0195	0.000020	mg/L	0.0200		97	80-120			
Vanadium, dissolved	0.0197	0.0010	mg/L	0.0200		99	80-120			
Zinc, dissolved	0.0181	0.0040	mg/L	0.0200		90	80-120			
Zirconium, dissolved	0.0181	0.00010	mg/L	0.0200		90	80-120			
LCS (B0F0551-BS2)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Lithium, dissolved	0.0208	0.00010	mg/L	0.0200		104	80-120			
Aluminum, dissolved	0.0202	0.0050	mg/L	0.0199		102	80-120			
Antimony, dissolved	0.0190	0.00020	mg/L	0.0200		95	80-120			
Arsenic, dissolved	0.0204	0.00050	mg/L	0.0200		102	80-120			
Barium, dissolved	0.0202	0.0050	mg/L	0.0198		102	80-120			
Beryllium, dissolved	0.0207	0.00010	mg/L	0.0198		105	80-120			
Bismuth, dissolved	0.0209	0.00010	mg/L	0.0200		105	80-120			
Boron, dissolved	0.0191	0.0050	mg/L	0.0200		95	80-120			
Cadmium, dissolved	0.0199	0.000010	mg/L	0.0199		100	80-120			
Calcium, dissolved	2.23	0.20	mg/L	2.02		110	80-120			
Chromium, dissolved	0.0201	0.00050	mg/L	0.0198		102	80-120			
Cobalt, dissolved	0.0197	0.00010	mg/L	0.0199		99	80-120			
Copper, dissolved	0.0202	0.00040	mg/L	0.0200		101	80-120			
Iron, dissolved	2.04	0.010	mg/L	2.02		101	80-120			
Lead, dissolved	0.0215	0.00020	mg/L	0.0199		108	80-120			
Magnesium, dissolved	2.24	0.010	mg/L	2.02		111	80-120			
Manganese, dissolved	0.0192	0.00020	mg/L	0.0199		96	80-120			
Molybdenum, dissolved	0.0193	0.00010	mg/L	0.0200		97	80-120			
Nickel, dissolved	0.0201	0.00040	mg/L	0.0200		101	80-120			
Phosphorus, dissolved	2.04	0.050	mg/L	2.00		102	80-120			
Potassium, dissolved	2.27	0.10	mg/L	2.02		113	80-120			
Selenium, dissolved	0.0208	0.00050	mg/L	0.0200		104	80-120			
Silicon, dissolved	2.2	1.0	mg/L	2.00		108	80-120			
Silver, dissolved	0.0199	0.000050	mg/L	0.0200		99	80-120			
Sodium, dissolved	2.25	0.10	mg/L	2.02		111	80-120			
Strontium, dissolved	0.0193	0.0010	mg/L	0.0200		96	80-120			
Sulfur, dissolved	5.0	3.0	mg/L	5.00		99	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B0F0551, Continued										
LCS (B0F0551-BS2), Continued				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Tellurium, dissolved	0.0188	0.00050	mg/L	0.0200		94	80-120			
Thallium, dissolved	0.0201	0.000020	mg/L	0.0199		101	80-120			
Thorium, dissolved	0.0194	0.00010	mg/L	0.0200		97	80-120			
Tin, dissolved	0.0195	0.00020	mg/L	0.0200		98	80-120			
Titanium, dissolved	0.0181	0.0050	mg/L	0.0200		90	80-120			
Tungsten, dissolved	0.0195	0.0010	mg/L	0.0200		98	80-120			
Uranium, dissolved	0.0201	0.000020	mg/L	0.0200		100	80-120			
Vanadium, dissolved	0.0218	0.0010	mg/L	0.0200		109	80-120			
Zinc, dissolved	0.0194	0.0040	mg/L	0.0200		97	80-120			
Zirconium, dissolved	0.0186	0.00010	mg/L	0.0200		93	80-120			
Reference (B0F0551-SRM1)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Lithium, dissolved	0.100	0.00010	mg/L	0.100		100	77-127			
Aluminum, dissolved	0.220	0.0050	mg/L	0.235		94	79-114			
Antimony, dissolved	0.0434	0.00020	mg/L	0.0431		101	89-123			
Arsenic, dissolved	0.435	0.00050	mg/L	0.423		103	87-113			
Barium, dissolved	2.96	0.0050	mg/L	3.30		90	85-114			
Beryllium, dissolved	0.212	0.00010	mg/L	0.209		102	79-122			
Boron, dissolved	1.67	0.0050	mg/L	1.65		101	79-117			
Cadmium, dissolved	0.214	0.000010	mg/L	0.221		97	89-112			
Calcium, dissolved	7.69	0.20	mg/L	7.72		100	85-120			
Chromium, dissolved	0.423	0.00050	mg/L	0.434		97	87-113			
Cobalt, dissolved	0.121	0.00010	mg/L	0.124		98	90-117			
Copper, dissolved	0.811	0.00040	mg/L	0.815		100	90-115			
Iron, dissolved	1.24	0.010	mg/L	1.27		98	86-112			
Lead, dissolved	0.114	0.00020	mg/L	0.110		104	90-113			
Magnesium, dissolved	7.09	0.010	mg/L	6.59		108	84-116			
Manganese, dissolved	0.322	0.00020	mg/L	0.342		94	85-113			
Molybdenum, dissolved	0.397	0.00010	mg/L	0.404		98	87-112			
Nickel, dissolved	0.832	0.00040	mg/L	0.835		100	90-114			
Phosphorus, dissolved	0.488	0.050	mg/L	0.499		98	74-119			
Potassium, dissolved	3.25	0.10	mg/L	2.88		113	78-119			
Selenium, dissolved	0.0337	0.00050	mg/L	0.0324		104	89-123			
Sodium, dissolved	17.5	0.10	mg/L	18.0		97	81-117			
Strontium, dissolved	0.891	0.0010	mg/L	0.935		95	82-111			
Thallium, dissolved	0.0381	0.000020	mg/L	0.0385		99	90-113			
Uranium, dissolved	0.245	0.000020	mg/L	0.258		95	87-113			
Vanadium, dissolved	0.835	0.0010	mg/L	0.873		96	85-110			
Zinc, dissolved	0.864	0.0040	mg/L	0.848		102	88-114			
Reference (B0F0551-SRM2)				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Lithium, dissolved	0.105	0.00010	mg/L	0.100		105	77-127			
Aluminum, dissolved	0.232	0.0050	mg/L	0.235		99	79-114			
Antimony, dissolved	0.0430	0.00020	mg/L	0.0431		100	89-123			
Arsenic, dissolved	0.439	0.00050	mg/L	0.423		104	87-113			
Barium, dissolved	2.95	0.0050	mg/L	3.30		89	85-114			
Beryllium, dissolved	0.219	0.00010	mg/L	0.209		105	79-122			
Boron, dissolved	1.68	0.0050	mg/L	1.65		102	79-117			
Cadmium, dissolved	0.214	0.000010	mg/L	0.221		97	89-112			
Calcium, dissolved	8.39	0.20	mg/L	7.72		109	85-120			
Chromium, dissolved	0.422	0.00050	mg/L	0.434		97	87-113			
Cobalt, dissolved	0.120	0.00010	mg/L	0.124		97	90-117			
Copper, dissolved	0.805	0.00040	mg/L	0.815		99	90-115			
Iron, dissolved	1.26	0.010	mg/L	1.27		99	86-112			
Lead, dissolved	0.114	0.00020	mg/L	0.110		104	90-113			
Magnesium, dissolved	7.35	0.010	mg/L	6.59		111	84-116			
Manganese, dissolved	0.320	0.00020	mg/L	0.342		93	85-113			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Allterra Construction
PROJECT 17-932
WORK ORDER 0060390
REPORTED 2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B0F0551, Continued										
Reference (B0F0551-SRM2), Continued				Prepared: 2020-06-07, Analyzed: 2020-06-07						
Molybdenum, dissolved	0.399	0.00010	mg/L	0.404		99	87-112			
Nickel, dissolved	0.825	0.00040	mg/L	0.835		99	90-114			
Phosphorus, dissolved	0.507	0.050	mg/L	0.499		102	74-119			
Potassium, dissolved	3.37	0.10	mg/L	2.88		117	78-119			
Selenium, dissolved	0.0339	0.00050	mg/L	0.0324		105	89-123			
Sodium, dissolved	18.1	0.10	mg/L	18.0		101	81-117			
Strontium, dissolved	0.876	0.0010	mg/L	0.935		94	82-111			
Thallium, dissolved	0.0377	0.000020	mg/L	0.0385		98	90-113			
Uranium, dissolved	0.247	0.000020	mg/L	0.258		96	87-113			
Vanadium, dissolved	0.836	0.0010	mg/L	0.873		96	85-110			
Zinc, dissolved	0.870	0.0040	mg/L	0.848		103	88-114			
Dissolved Metals, Batch B0F1720										
Blank (B0F1720-BLK1)				Prepared: 2020-06-21, Analyzed: 2020-06-21						
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0010	0.0010	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B0F1720-BS1)				Prepared: 2020-06-21, Analyzed: 2020-06-21						
Lithium, dissolved	0.0194	0.00010	mg/L	0.0200		97	80-120			
Aluminum, dissolved	0.0194	0.0050	mg/L	0.0199		98	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B0F1720, Continued										
LCS (B0F1720-BS1), Continued				Prepared: 2020-06-21, Analyzed: 2020-06-21						
Antimony, dissolved	0.0189	0.00020	mg/L	0.0200		95	80-120			
Arsenic, dissolved	0.0214	0.00050	mg/L	0.0200		107	80-120			
Barium, dissolved	0.0198	0.0050	mg/L	0.0198		100	80-120			
Beryllium, dissolved	0.0196	0.00010	mg/L	0.0198		99	80-120			
Bismuth, dissolved	0.0210	0.00010	mg/L	0.0200		105	80-120			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0200		86	80-120			
Cadmium, dissolved	0.0204	0.000010	mg/L	0.0199		103	80-120			
Calcium, dissolved	2.28	0.20	mg/L	2.02		113	80-120			
Chromium, dissolved	0.0200	0.00050	mg/L	0.0198		101	80-120			
Cobalt, dissolved	0.0203	0.00010	mg/L	0.0199		102	80-120			
Copper, dissolved	0.0212	0.00040	mg/L	0.0200		106	80-120			
Iron, dissolved	2.04	0.010	mg/L	2.02		101	80-120			
Lead, dissolved	0.0206	0.00020	mg/L	0.0199		103	80-120			
Magnesium, dissolved	2.15	0.010	mg/L	2.02		106	80-120			
Manganese, dissolved	0.0194	0.00020	mg/L	0.0199		97	80-120			
Molybdenum, dissolved	0.0194	0.00010	mg/L	0.0200		97	80-120			
Nickel, dissolved	0.0210	0.00040	mg/L	0.0200		105	80-120			
Phosphorus, dissolved	2.04	0.050	mg/L	2.00		102	80-120			
Potassium, dissolved	2.17	0.10	mg/L	2.02		107	80-120			
Selenium, dissolved	0.0216	0.00050	mg/L	0.0200		108	80-120			
Silicon, dissolved	1.8	1.0	mg/L	2.00		89	80-120			
Silver, dissolved	0.0200	0.000050	mg/L	0.0200		100	80-120			
Sodium, dissolved	2.19	0.10	mg/L	2.02		108	80-120			
Strontium, dissolved	0.0200	0.0010	mg/L	0.0200		100	80-120			
Sulfur, dissolved	5.0	3.0	mg/L	5.00		99	80-120			
Tellurium, dissolved	0.0203	0.00050	mg/L	0.0200		101	80-120			
Thallium, dissolved	0.0206	0.000020	mg/L	0.0199		103	80-120			
Thorium, dissolved	0.0195	0.00010	mg/L	0.0200		98	80-120			
Tin, dissolved	0.0196	0.00020	mg/L	0.0200		98	80-120			
Titanium, dissolved	0.0192	0.0050	mg/L	0.0200		96	80-120			
Tungsten, dissolved	0.0198	0.0010	mg/L	0.0200		99	80-120			
Uranium, dissolved	0.0208	0.000020	mg/L	0.0200		104	80-120			
Vanadium, dissolved	0.0194	0.0010	mg/L	0.0200		97	80-120			
Zinc, dissolved	0.0207	0.0040	mg/L	0.0200		104	80-120			
Zirconium, dissolved	0.0197	0.00010	mg/L	0.0200		98	80-120			
Reference (B0F1720-SRM1)				Prepared: 2020-06-21, Analyzed: 2020-06-21						
Lithium, dissolved	0.0971	0.00010	mg/L	0.100		97	77-127			
Aluminum, dissolved	0.232	0.0050	mg/L	0.235		99	79-114			
Antimony, dissolved	0.0436	0.00020	mg/L	0.0431		101	89-123			
Arsenic, dissolved	0.454	0.00050	mg/L	0.423		107	87-113			
Barium, dissolved	3.14	0.0050	mg/L	3.30		95	85-114			
Beryllium, dissolved	0.204	0.00010	mg/L	0.209		98	79-122			
Boron, dissolved	1.53	0.0500	mg/L	1.65		93	79-117			
Cadmium, dissolved	0.221	0.000010	mg/L	0.221		100	89-112			
Calcium, dissolved	7.80	0.20	mg/L	7.72		101	85-120			
Chromium, dissolved	0.430	0.00050	mg/L	0.434		99	87-113			
Cobalt, dissolved	0.126	0.00010	mg/L	0.124		101	90-117			
Copper, dissolved	0.844	0.00040	mg/L	0.815		104	90-115			
Iron, dissolved	1.28	0.010	mg/L	1.27		101	86-112			
Lead, dissolved	0.111	0.00020	mg/L	0.110		101	90-113			
Magnesium, dissolved	6.97	0.010	mg/L	6.59		106	84-116			
Manganese, dissolved	0.326	0.00020	mg/L	0.342		95	85-113			
Molybdenum, dissolved	0.404	0.00010	mg/L	0.404		100	87-112			
Nickel, dissolved	0.857	0.00040	mg/L	0.835		103	90-114			
Phosphorus, dissolved	0.497	0.050	mg/L	0.499		100	74-119			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Allterra Construction
PROJECT 17-932
WORK ORDER 0060390
REPORTED 2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B0F1720, Continued										
Reference (B0F1720-SRM1), Continued				Prepared: 2020-06-21, Analyzed: 2020-06-21						
Potassium, dissolved	3.22	0.10	mg/L	2.88		112	78-119			
Selenium, dissolved	0.0346	0.00050	mg/L	0.0324		107	89-123			
Sodium, dissolved	17.5	0.10	mg/L	18.0		97	81-117			
Strontium, dissolved	0.915	0.0010	mg/L	0.935		98	82-111			
Thallium, dissolved	0.0390	0.000020	mg/L	0.0385		101	90-113			
Uranium, dissolved	0.249	0.000020	mg/L	0.258		96	87-113			
Vanadium, dissolved	0.848	0.0010	mg/L	0.873		97	85-110			
Zinc, dissolved	0.885	0.0040	mg/L	0.848		104	88-114			
General Parameters, Batch B0F0335										
Blank (B0F0335-BLK1)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Turbidity	< 0.10	0.10	NTU							
Blank (B0F0335-BLK2)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Turbidity	< 0.10	0.10	NTU							
Blank (B0F0335-BLK3)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Turbidity	< 0.10	0.10	NTU							
LCS (B0F0335-BS1)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Turbidity	38.8	0.10	NTU	40.0		97	90-110			
LCS (B0F0335-BS2)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Turbidity	39.5	0.10	NTU	40.0		99	90-110			
LCS (B0F0335-BS3)				Prepared: 2020-06-04, Analyzed: 2020-06-04						
Turbidity	38.2	0.10	NTU	40.0		96	90-110			
General Parameters, Batch B0F0408										
Blank (B0F0408-BLK1)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B0F0408-BLK2)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B0F0408-BLK3)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Allterra Construction
PROJECT 17-932
WORK ORDER 0060390
REPORTED 2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B0F0408, Continued										
LCS (B0F0408-BS1)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Alkalinity, Total (as CaCO3)	105	1.0	mg/L	100		105	80-120			
LCS (B0F0408-BS2)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Alkalinity, Total (as CaCO3)	108	1.0	mg/L	100		108	80-120			
LCS (B0F0408-BS3)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Alkalinity, Total (as CaCO3)	105	1.0	mg/L	100		105	80-120			
LCS (B0F0408-BS4)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Conductivity (EC)	1430	2.0	µS/cm	1410		101	95-104			
LCS (B0F0408-BS5)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Conductivity (EC)	1400	2.0	µS/cm	1410		99	95-104			
LCS (B0F0408-BS6)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Conductivity (EC)	1430	2.0	µS/cm	1410		101	95-104			
Reference (B0F0408-SRM1)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
pH	6.99	0.10	pH units	7.01		100	98-102			
Reference (B0F0408-SRM2)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B0F0408-SRM3)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
pH	7.03	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B0F0439										
Blank (B0F0439-BLK1)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B0F0439-BS1)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Solids, Total Dissolved	245	15	mg/L	240		102	85-115			
General Parameters, Batch B0F0569										
Blank (B0F0569-BLK1)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Solids, Total Suspended	< 1.0	1.0	mg/L							
Blank (B0F0569-BLK2)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Solids, Total Suspended	< 1.0	1.0	mg/L							
LCS (B0F0569-BS1)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Solids, Total Suspended	101	10.0	mg/L	100		101	85-115			
LCS (B0F0569-BS2)				Prepared: 2020-06-05, Analyzed: 2020-06-05						
Solids, Total Suspended	106	10.0	mg/L	100		106	85-115			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B0F0579										
Blank (B0F0579-BLK1)				Prepared: 2020-06-07, Analyzed: 2020-06-08						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B0F0579, Continued										
Blank (B0F0579-BLK1), Continued				Prepared: 2020-06-07, Analyzed: 2020-06-08						
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*4.15*		*µg/L*	4.47		*93*	*50-140*			
Surrogate: Naphthalene-d8	*4.68*		*µg/L*	4.44		*105*	*50-140*			
Surrogate: Perylene-d12	*4.50*		*µg/L*	4.44		*101*	*50-140*			
LCS (B0F0579-BS1)				Prepared: 2020-06-07, Analyzed: 2020-06-08						
Acenaphthene	4.77	0.050	µg/L	4.44		107	55-137			
Acenaphthylene	5.06	0.200	µg/L	4.44		114	53-140			
Acridine	5.18	0.050	µg/L	4.42		117	50-120			
Anthracene	5.30	0.010	µg/L	4.44		119	64-130			
Benz(a)anthracene	4.77	0.010	µg/L	4.44		107	57-140			
Benzo(a)pyrene	5.23	0.010	µg/L	4.44		118	63-133			
Benzo(b+j)fluoranthene	9.85	0.050	µg/L	8.89		111	60-129			
Benzo(g,h,i)perylene	5.18	0.050	µg/L	4.44		117	52-139			
Benzo(k)fluoranthene	4.89	0.050	µg/L	4.44		110	50-138			
2-Chloronaphthalene	5.53	0.100	µg/L	4.49		123	50-139			
Chrysene	4.81	0.050	µg/L	4.44		108	59-140			
Dibenz(a,h)anthracene	5.41	0.010	µg/L	4.44		122	53-136			
Fluoranthene	5.37	0.030	µg/L	4.44		121	67-135			
Fluorene	4.90	0.050	µg/L	4.44		110	57-134			
Indeno(1,2,3-cd)pyrene	5.25	0.050	µg/L	4.44		118	52-129			
1-Methylnaphthalene	4.27	0.100	µg/L	4.44		96	50-140			
2-Methylnaphthalene	4.11	0.100	µg/L	4.44		92	50-140			
Naphthalene	4.79	0.200	µg/L	4.44		108	50-140			
Phenanthrene	5.32	0.100	µg/L	4.44		120	61-134			
Pyrene	5.07	0.020	µg/L	4.44		114	66-131			
Quinoline	4.73	0.050	µg/L	4.80		98	50-140			
Surrogate: Acridine-d9	*4.81*		*µg/L*	4.47		*108*	*50-140*			
Surrogate: Naphthalene-d8	*4.82*		*µg/L*	4.44		*108*	*50-140*			
Surrogate: Perylene-d12	*4.58*		*µg/L*	4.44		*103*	*50-140*			
LCS Dup (B0F0579-BSD1)				Prepared: 2020-06-07, Analyzed: 2020-06-08						
Acenaphthene	4.61	0.050	µg/L	4.44		104	55-137	3	18	
Acenaphthylene	4.97	0.200	µg/L	4.44		112	53-140	2	20	
Acridine	4.87	0.050	µg/L	4.42		110	50-120	6	30	
Anthracene	4.92	0.010	µg/L	4.44		111	64-130	7	15	
Benz(a)anthracene	4.85	0.010	µg/L	4.44		109	57-140	2	25	
Benzo(a)pyrene	4.99	0.010	µg/L	4.44		112	63-133	5	18	
Benzo(b+j)fluoranthene	9.47	0.050	µg/L	8.89		107	60-129	4	17	
Benzo(g,h,i)perylene	5.16	0.050	µg/L	4.44		116	52-139	< 1	22	
Benzo(k)fluoranthene	4.68	0.050	µg/L	4.44		105	50-138	4	26	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Allterra Construction
PROJECT 17-932
WORK ORDER 0060390
REPORTED 2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B0F0579, Continued										
LCS Dup (B0F0579-BSD1), Continued				Prepared: 2020-06-07, Analyzed: 2020-06-08						
2-Chloronaphthalene	5.32	0.100	µg/L	4.49		119	50-139	4	23	
Chrysene	4.97	0.050	µg/L	4.44		112	59-140	3	23	
Dibenz(a,h)anthracene	5.30	0.010	µg/L	4.44		119	53-136	2	21	
Fluoranthene	5.16	0.030	µg/L	4.44		116	67-135	4	18	
Fluorene	4.82	0.050	µg/L	4.44		109	57-134	2	18	
Indeno(1,2,3-cd)pyrene	4.80	0.050	µg/L	4.44		108	52-129	9	21	
1-Methylnaphthalene	4.12	0.100	µg/L	4.44		93	50-140	3	20	
2-Methylnaphthalene	4.02	0.100	µg/L	4.44		90	50-140	2	21	
Naphthalene	4.65	0.200	µg/L	4.44		105	50-140	3	22	
Phenanthrene	5.51	0.100	µg/L	4.44		124	61-134	3	17	
Pyrene	5.20	0.020	µg/L	4.44		117	66-131	3	19	
Quinoline	4.78	0.050	µg/L	4.80		99	50-140	1	14	
Surrogate: Acridine-d9	*4.56*		*µg/L*	4.47		*102*	*50-140*			
Surrogate: Naphthalene-d8	*4.64*		*µg/L*	4.44		*104*	*50-140*			
Surrogate: Perylene-d12	*4.59*		*µg/L*	4.44		*103*	*50-140*			
Total Metals, Batch B0F0552										
Blank (B0F0552-BLK1)				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0050	0.0050	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0010	0.0010	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0010	0.0010	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B0F0552, Continued										
Blank (B0F0552-BLK2)				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0050	0.0050	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0010	0.0010	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0010	0.0010	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B0F0552-BS1)				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Aluminum, total	0.0216	0.0050	mg/L	0.0199		108	80-120			
Antimony, total	0.0209	0.00020	mg/L	0.0200		104	80-120			
Arsenic, total	0.0227	0.00050	mg/L	0.0200		114	80-120			
Barium, total	0.0220	0.0050	mg/L	0.0198		111	80-120			
Beryllium, total	0.0206	0.00010	mg/L	0.0198		104	80-120			
Bismuth, total	0.0226	0.00010	mg/L	0.0200		113	80-120			
Boron, total	0.0199	0.0050	mg/L	0.0200		100	80-120			
Cadmium, total	0.0209	0.000010	mg/L	0.0199		105	80-120			
Calcium, total	2.25	0.20	mg/L	2.02		112	80-120			
Chromium, total	0.0209	0.00050	mg/L	0.0198		105	80-120			
Cobalt, total	0.0213	0.00010	mg/L	0.0199		107	80-120			
Copper, total	0.0221	0.00040	mg/L	0.0200		111	80-120			
Iron, total	2.18	0.010	mg/L	2.02		108	80-120			
Lead, total	0.0234	0.00020	mg/L	0.0199		118	80-120			
Lithium, total	0.0219	0.00010	mg/L	0.0200		110	80-120			
Magnesium, total	2.25	0.010	mg/L	2.02		111	80-120			
Manganese, total	0.0208	0.00020	mg/L	0.0199		105	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B0F0552, Continued										
LCS (B0F0552-BS1), Continued				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Molybdenum, total	0.0210	0.00010	mg/L	0.0200		105	80-120			
Nickel, total	0.0218	0.00040	mg/L	0.0200		109	80-120			
Phosphorus, total	2.09	0.050	mg/L	2.00		104	80-120			
Potassium, total	2.34	0.10	mg/L	2.02		116	80-120			
Selenium, total	0.0220	0.00050	mg/L	0.0200		110	80-120			
Silicon, total	2.2	1.0	mg/L	2.00		109	80-120			
Silver, total	0.0210	0.000050	mg/L	0.0200		105	80-120			
Sodium, total	2.22	0.10	mg/L	2.02		110	80-120			
Strontium, total	0.0214	0.0010	mg/L	0.0200		107	80-120			
Sulfur, total	5.3	3.0	mg/L	5.00		107	80-120			
Tellurium, total	0.0194	0.00050	mg/L	0.0200		97	80-120			
Thallium, total	0.0222	0.000020	mg/L	0.0199		112	80-120			
Thorium, total	0.0211	0.00010	mg/L	0.0200		106	80-120			
Tin, total	0.0214	0.00020	mg/L	0.0200		107	80-120			
Titanium, total	0.0216	0.0050	mg/L	0.0200		108	80-120			
Tungsten, total	0.0214	0.0010	mg/L	0.0200		107	80-120			
Uranium, total	0.0220	0.000020	mg/L	0.0200		110	80-120			
Vanadium, total	0.0210	0.0010	mg/L	0.0200		105	80-120			
Zinc, total	0.0213	0.0040	mg/L	0.0200		107	80-120			
Zirconium, total	0.0208	0.00010	mg/L	0.0200		104	80-120			
LCS (B0F0552-BS2)				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Aluminum, total	0.0228	0.0050	mg/L	0.0199		114	80-120			
Antimony, total	0.0203	0.00020	mg/L	0.0200		102	80-120			
Arsenic, total	0.0219	0.00050	mg/L	0.0200		109	80-120			
Barium, total	0.0214	0.0050	mg/L	0.0198		108	80-120			
Beryllium, total	0.0203	0.00010	mg/L	0.0198		102	80-120			
Bismuth, total	0.0223	0.00010	mg/L	0.0200		112	80-120			
Boron, total	0.0201	0.0050	mg/L	0.0200		100	80-120			
Cadmium, total	0.0209	0.000010	mg/L	0.0199		105	80-120			
Calcium, total	2.21	0.20	mg/L	2.02		110	80-120			
Chromium, total	0.0198	0.00050	mg/L	0.0198		100	80-120			
Cobalt, total	0.0204	0.00010	mg/L	0.0199		102	80-120			
Copper, total	0.0214	0.00040	mg/L	0.0200		107	80-120			
Iron, total	2.12	0.010	mg/L	2.02		105	80-120			
Lead, total	0.0229	0.00020	mg/L	0.0199		115	80-120			
Lithium, total	0.0227	0.00010	mg/L	0.0200		114	80-120			
Magnesium, total	2.31	0.010	mg/L	2.02		115	80-120			
Manganese, total	0.0198	0.00020	mg/L	0.0199		100	80-120			
Molybdenum, total	0.0205	0.00010	mg/L	0.0200		102	80-120			
Nickel, total	0.0208	0.00040	mg/L	0.0200		104	80-120			
Phosphorus, total	2.08	0.050	mg/L	2.00		104	80-120			
Potassium, total	2.26	0.10	mg/L	2.02		112	80-120			
Selenium, total	0.0208	0.00050	mg/L	0.0200		104	80-120			
Silicon, total	2.3	1.0	mg/L	2.00		116	80-120			
Silver, total	0.0208	0.000050	mg/L	0.0200		104	80-120			
Sodium, total	2.29	0.10	mg/L	2.02		113	80-120			
Strontium, total	0.0207	0.0010	mg/L	0.0200		103	80-120			
Sulfur, total	4.9	3.0	mg/L	5.00		97	80-120			
Tellurium, total	0.0209	0.00050	mg/L	0.0200		104	80-120			
Thallium, total	0.0218	0.000020	mg/L	0.0199		110	80-120			
Thorium, total	0.0205	0.00010	mg/L	0.0200		103	80-120			
Tin, total	0.0208	0.00020	mg/L	0.0200		104	80-120			
Titanium, total	0.0209	0.0050	mg/L	0.0200		105	80-120			
Tungsten, total	0.0221	0.0010	mg/L	0.0200		111	80-120			
Uranium, total	0.0216	0.000020	mg/L	0.0200		108	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B0F0552, Continued										
LCS (B0F0552-BS2), Continued				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Vanadium, total	0.0201	0.0010	mg/L	0.0200		101	80-120			
Zinc, total	0.0205	0.0040	mg/L	0.0200		102	80-120			
Zirconium, total	0.0200	0.00010	mg/L	0.0200		100	80-120			
Reference (B0F0552-SRM1)				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Aluminum, total	0.294	0.0050	mg/L	0.303		97	82-114			
Antimony, total	0.0517	0.00020	mg/L	0.0511		101	88-115			
Arsenic, total	0.130	0.00050	mg/L	0.118		110	88-111			
Barium, total	0.823	0.0050	mg/L	0.823		100	83-110			
Beryllium, total	0.0482	0.00010	mg/L	0.0496		97	80-119			
Boron, total	3.20	0.0050	mg/L	3.45		93	80-118			
Cadmium, total	0.0499	0.000010	mg/L	0.0495		101	90-110			
Calcium, total	11.5	0.20	mg/L	11.6		99	85-113			
Chromium, total	0.251	0.00050	mg/L	0.250		100	88-111			
Cobalt, total	0.0397	0.00010	mg/L	0.0377		105	90-114			
Copper, total	0.521	0.00040	mg/L	0.486		107	90-117			
Iron, total	0.507	0.010	mg/L	0.488		104	90-116			
Lead, total	0.222	0.00020	mg/L	0.204		109	90-110			
Lithium, total	0.385	0.00010	mg/L	0.403		96	79-118			
Magnesium, total	4.06	0.010	mg/L	3.79		107	88-116			
Manganese, total	0.106	0.00020	mg/L	0.109		97	88-108			
Molybdenum, total	0.203	0.00010	mg/L	0.198		102	88-110			
Nickel, total	0.260	0.00040	mg/L	0.249		105	90-112			
Phosphorus, total	0.204	0.050	mg/L	0.227		90	72-118			
Potassium, total	8.55	0.10	mg/L	7.21		119	87-116			SRM
Selenium, total	0.126	0.00050	mg/L	0.121		104	90-122			
Sodium, total	7.47	0.10	mg/L	7.54		99	86-118			
Strontium, total	0.388	0.0010	mg/L	0.375		103	86-110			
Thallium, total	0.0857	0.000020	mg/L	0.0805		106	90-113			
Uranium, total	0.0317	0.000020	mg/L	0.0306		104	88-112			
Vanadium, total	0.386	0.0010	mg/L	0.386		100	87-110			
Zinc, total	2.51	0.0040	mg/L	2.49		101	90-113			
Reference (B0F0552-SRM2)				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Aluminum, total	0.312	0.0050	mg/L	0.303		103	82-114			
Antimony, total	0.0517	0.00020	mg/L	0.0511		101	88-115			
Arsenic, total	0.126	0.00050	mg/L	0.118		107	88-111			
Barium, total	0.827	0.0050	mg/L	0.823		100	83-110			
Beryllium, total	0.0493	0.00010	mg/L	0.0496		99	80-119			
Boron, total	3.31	0.0050	mg/L	3.45		96	80-118			
Cadmium, total	0.0500	0.000010	mg/L	0.0495		101	90-110			
Calcium, total	11.6	0.20	mg/L	11.6		100	85-113			
Chromium, total	0.247	0.00050	mg/L	0.250		99	88-111			
Cobalt, total	0.0386	0.00010	mg/L	0.0377		102	90-114			
Copper, total	0.508	0.00040	mg/L	0.486		104	90-117			
Iron, total	0.500	0.010	mg/L	0.488		102	90-116			
Lead, total	0.221	0.00020	mg/L	0.204		108	90-110			
Lithium, total	0.412	0.00010	mg/L	0.403		102	79-118			
Magnesium, total	4.29	0.010	mg/L	3.79		113	88-116			
Manganese, total	0.104	0.00020	mg/L	0.109		95	88-108			
Molybdenum, total	0.201	0.00010	mg/L	0.198		102	88-110			
Nickel, total	0.252	0.00040	mg/L	0.249		101	90-112			
Phosphorus, total	0.238	0.050	mg/L	0.227		105	72-118			
Potassium, total	7.95	0.10	mg/L	7.21		110	87-116			
Selenium, total	0.125	0.00050	mg/L	0.121		103	90-122			
Sodium, total	7.90	0.10	mg/L	7.54		105	86-118			
Strontium, total	0.384	0.0010	mg/L	0.375		102	86-110			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Allterra Construction	**WORK ORDER**	0060390
PROJECT	17-932	**REPORTED**	2020-06-25 15:03

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B0F0552, Continued										
Reference (B0F0552-SRM2), Continued				Prepared: 2020-06-06, Analyzed: 2020-06-09						
Thallium, total	0.0847	0.000020	mg/L	0.0805		105	90-113			
Uranium, total	0.0319	0.000020	mg/L	0.0306		104	88-112			
Vanadium, total	0.382	0.0010	mg/L	0.386		99	87-110			
Zinc, total	2.48	0.0040	mg/L	2.49		100	90-113			

QC Qualifiers:

SRM Recovery of one or more analytes on Standard Reference Material (SRM) analysis are outside of control limits.

CARO ANALYTICAL SERVICES
Caring About Results, Obviously.

CARO
#110-4011
#102-3677
17225 109
#108-4475

0060390

CARO BC COC, Rev 2019-01

CHAIN OF CUSTODY RECORD

COC# B 75049 PAGE 1 OF 1

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Sean Babulic	6/2/2020	Max Express	0606
	TIME: 15:00		TIME: 1040

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☒
Rush: 1 Day* ☐ 2 Day* ☐ 3 Day* ☐
Other*
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Show on Report
Canadian Drinking Water Quality ☐ BC WQG ☐ BC HWR
BC CSR Soil: WL ☐ AL ☐ PL ☐ RL-LD ☐ RL-HD ☐ CL ☐
BC CSR Water: AW ☐ IW ☐ LW ☐ DW ☐
CCME: Other:

PROJECT NUMBER / INFO: 17-932

A: Biohazard B: Cyanide C: PCBs D: Asbestos E: Heavy Metals F: Flammable G: Strong Odour H: High Contamination I: Other (please specify*)

REPORT TO:
COMPANY: Allterra Construction Ltd
ADDRESS: 2158 Millstream Rd, Victoria BC V9B 6H4
CONTACT: Ray Lam
TEL/FAX:
DELIVERY METHOD: EMAIL ☒ ONLINE ☐ OTHER* ☐
DATA FORMAT: EXCEL ☒ WATERTRAX ☐ ESdat ☐ EQuIS ☐ BC EMS ☐ OTHER* ☐
EMAIL 1: fgardhar@islandengineering.com
EMAIL 2: raymond@allterraconstruction.ca
EMAIL 3:

INVOICE TO: SAME AS REPORT TO ☒
COMPANY:
ADDRESS:
CONTACT:
TEL/FAX:
DELIVERY METHOD: EMAIL ☐ ONLINE ☐ OTHER* ☐
EMAIL 1:
EMAIL 2:
EMAIL 3:
PO #: 17-932

** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, please check here: ☐

SAMPLED BY: SB

ANALYSES REQUESTED

CLIENT SAMPLE ID	DRINKING WATER	OTHER WATER	SOIL	OTHER	CONTAINER QTY	DATE YYYY-MM-DD	TIME HH:MM	CHLORINATED	FILTERED	PRESERVED	COMMENTS (e.g. flow/volume media ID/notes)	BTEX / VPH / PHC F1	VOC / VPH	EPH / PHC F2-F4	PAH / L/HEPH	PHENOLS Chlorinated / Non-Chlor.	PCB / GLYCOLS / HAA / THM	PESTICIDES / ACID HERBICIDES	METALS - WATER TOTAL / Hg	METALS - WATER DISSOLVED / Hg	METALS - SOIL (SALM) / inc. pH	pH / EC / ALK / ANIONS	TSS / VSS / TDS	BOD / COD / TOG / MOG	TN / NH3 / TKN	FECAL COLIFORMS / HPC	TOTAL COLIFORMS / E. coli	ESSENTIAL DRINKING WATER PACKAGE	ASBESTOS	turbidity	Anions/Nutrients	Alkalinity	Hardness		HOLD	POSSIBLE SAMPLE HAZARD CODE(S)
19-02		X				2020-06-01				X					X				X			X								X	X	X	X			
SW-01		X				2020-06-01				X					X				X	X		X								X	X	X	X			

SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION:
30 Days (default) ☐
60 Days ☐ 90 Days ☐
Other (surcharges will apply):

*** OTHER INSTRUCTIONS:**

If you would like to talk to a real live Scientist about your project requirements, please check here: ☐

SAMPLE RECEIPT CONDITION:
COOLER 1 (°C): 8.8 ICE: Y ☑ N ☐
COOLER 2 (°C): ICE: Y ☐ N ☐
COOLER 3 (°C): ICE: Y ☐ N ☐
CUSTODY SEALS INTACT: NA ☐ Y ☐ N ☐