

From: SPOMO1701@outlook.com
Sent: Friday, June 15, 2018 10:36 AM
To: Environmental Compliance ENV:EX; marty@chholdings.ca
Subject: SPO MO1701-Status Update June 15, 2018
Attachments: June 15, 2018 CHH Progress Report.pdf; May 2018 CHH SUBMITTAL-Surface Water Quality DATA-CLOSURE PLAN.pdf; May 2018 CHH SUBMITTAL-Ground Water Quality DATA-CLOSURE PLAN.pdf; COA_CHH MAY 2018.pdf; COA_CHH MAY 2018.xlsx

- ***Please find information regarding the Leachate reporting requirements for the June 15, 2018 reporting period as per SPILL PREVENTION ORDER : MO1701 Section 1d***

Total Leachate Collected= 6.20 m³

Total Leachate Stored= 32.21 m³

Total Leachate Transported= 0 m³

- ***Sampling was conducted on May 30, 2018 as per Section 6biii of File 311372 August 11, 2017 letter. Tabulated results and COA's are attached***

Sampling Summary:

1. SHA-SW1
2. SHA-SW2 (No Flow)
3. MW6
4. MW3
5. MW2
6. SHA-LE-1
7. SHA-LD-1 (Dry Conditions)
8. SB-1
9. SB-2
10. SB-3 (Dry Conditions)

- ***Attached is the QP Progress Report for June 15, 2018 as per File 311372 August 11, 2017 letter.***

Thank you



ISLANDER ENGINEERING

FIELD REVIEW REPORT		DATE: June 14 2018	ISLANDER PROJECT No.: 2087
REPORT No: 22	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Cloud/Sunny, 13 deg	1 of 3 PAGE:
PROJECT: Cobble Hill Landfill 2017 Minor Construction Works			
TO: CHH	ATTENTION: Marty Block		
CC:			

The field review included the inspection of the following items included in the detailed summary of works section of the *Cobble Hill Landfill — 2017 Minor Construction Works, Detailed Construction Plan (Sperling Hansen Associates, September 13, 2017)*

- **PEA**
 - Liner appears to be in good condition, and no noticeable changes since the date of our last inspection
- **Leachate and Leak Detention facility**
 - Total leachate collected: = **6.2 m³**
 - Total leachate stored = **32.21 m³**
 - Total leachate transported = **0 m³**
- **Soil Management Area (SMA)**
 - All works are in good condition and no noticeable changes since the date of our last inspection
- **Contact Water Containment Pond**
 - All works are in good condition and no noticeable changes since the date of our last inspection
- **cut-off ditch upland of PEA**
 - All works are in good condition, ditch still performing well.

ISLANDER ENGINEERING LTD.



Mike Achtem, P.Eng



ISLANDER ENGINEERING

FIELD REVIEW REPORT		DATE: June 14 2018	ISLANDER PROJECT No.: 2087
REPORT No: 22	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Cloud/Sun, 13 deg	PAGE: 2 of 3



SMA - looking south



SMA – looking north



Contact water containment Pond



Pipe trenching and Leachate and Leak Detention facility



ISLANDER ENGINEERING

FIELD REVIEW REPORT		DATE: June 14 2018	ISLANDER PROJECT No.: 2087
REPORT No: 22	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Cloud/Sun, 13 deg	PAGE: 3 of 3



PEA – liner near NE corner



PEA– NW corner



PEA ditch



PEA north face

Table 1: Analytical Results for Nutrients in Surface Water			SHA-LE-1	SHA-SW-2	SHA-SW-2	RPD
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8052910-07	8052910-08	8052910-09	
Sample ID			LE-1	SW-1	SW-1 DUP	
Date Sampled/Time			2018-05-30	2018-05-30	2018-05-30	
Physical Tests						
Colour, True (Colour Units)	15 TCU	15 ⁽¹⁾ units absolute, or 5 units above background (30-day average)	8	<5.0	<5.0	*
Total Dissolved Solids (mg/L)	-	-				-
Total Suspended Solids (mg/L)	-	25 mg/L above background (24-hr during clear flow)	<2.0	2	<2.5	*
pH	7-10.5	6.5-9	7.14	7.44	7.43	0.13%
Conductivity (uS/cm)	-	-	12400	515	515	0.00%
Hardness (as CaCO3)	-	-	3220	237	236	0.42%
Turbidity (NTU)	Δ1 NTU	8 NTU above background (24-hr during clear flow	0.45	1.05	0.38	*
Anions and Nutrients mg/L						
Alkalinity Total (as CaCO3)	<10 high sensitivity to acid inputs		62	154	156	1.29%
Acid Sensitivity	10-20 moderate sensitivity to acid inputs		High	High	High	
	>20 low sensitivity to acid inputs					
Chloride (Cl)	250 mg/L	600 mg/L (instant max), 150 mg/L (30-day average)	3240	17.5	17.2	1.73%
Fluoride (F)	1.5 mg/L (instant max) 1.0 mg/L (30-day average)	0.4 (Hardness <10mg/L)	<1.00	<0.10	<0.10	*
		Hardness-Dependent AW (Hardness is >10mg/L) ⁽¹⁾	0.27	0.29	0.29	-3.18
Nitrate (as N)	45 mg/L	32.8 mg/L (instant maximum) 3.0 mg/L (30-day average)	1.56	0.292	0.333	13.12%
Nitrite (as N) ⁽²⁾	3 mg/L	Cl > 10 mg/L 0.6 mg/L (MAX), 0.2 mg/L (30-day average)	<0.100	<0.010	<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)		86.2	85	1.40%
H 181 - 250 mg/L		429 mg/L (30-day average)				
H > 250 mg/L		TBD	1740			

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Total Metals in Surface Water			SHA-LE-1	SHA-SW-2	SHA-SW-2	RPD
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8052910-07	8052910-08	8052910-09	
Sample ID			LE-1	SW-1	SW-1 DUP	
Date Sampled/Time			2018-05-30	2018-05-30	2018-05-30	
Physical Tests						
Hardness (as CaCO3) (mg/L)	-	-	3220	237	236	0.42%
pH	7-10.5	6.5-9	7.14	7.44	7.43	0.13%
Total Metals (mg/L)						
Aluminum (Al)-Total	0.2	-	0.229	0.0355	0.0246	*
Antimony (Sb)-Total	-	-	0.00024	<0.00020	<0.00020	*
Arsenic (As)-Total	0.01	0.005	<0.00050	<0.00050	<0.00050	*
Barium (Ba)-Total	-	-	0.066	0.0152	0.0149	*
Beryllium (Be)-Total	-	-	<0.00010	<0.00010	<0.00010	*
Bismuth, total	-	-	<0.00010	<0.00010	<0.00010	*
Boron (B)-Total	5	1.2	0.281	0.018	0.0159	*
Cadmium (Cd)-Total	-	-	0.000949	0.000011	<0.000010	*
Calcium (Ca)-Total	-	-	991	89.3	86	3.76%
Chromium (Cr)-Total Chromium	-	-	0.00057	<0.00050	<0.00050	*
Chromium (Cr(III))	-	-	-	<0.00100	<0.00100	*
Chromium (Cr(VI))	-	-	-	0.0018	0.0018	*
Cobalt (Co)-Total	-	0.110 (Short Term), 0.004 (Long Term Average)	0.01	0.00014	0.00011	*
Copper (Cu)-Total	0.5	Hardness-Dependent ⁽⁷⁾	0.00525	0.00149	0.00217	*
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	0.3047	0.0242	0.0242	
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	0.1288	0.0095	0.0094	
Iron (Fe)-Total	-	1	0.028	0.033	0.024	*
Lead (Pb)-Total	0.01	Hardness-Dependent ⁽⁸⁾	<0.00020	<0.00020	<0.00020	*
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	6.7831	0.2449	0.2436	
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	0.2679	0.0129	0.0128	
Lithium (Li)-Total	-	-	0.00039	0.00011	<0.00010	*
Magnesium (Mg)-Total	-	-	258	11.1	10.4	6.51%
Manganese (Mn)-Total	-	Hardness Dependent ⁽⁸⁾	35.9	0.0383	0.0316	19.17%
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	36.0	3.2	3.1	
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	14.8	1.6	1.6	
Mercury (Hg)-Total	0.001	0.00002	0.000015	<0.000010	<0.000010	*
Molybdenum (Mo)-Total	0.25	51 (instant max) 2 (30-d average)	0.00178	0.00095	0.00088	7.65%
Nickel (Ni)-Total	-	0.025 (Hardness-Dependent ⁽⁸⁾ BCAWQG to protect AW H=60mg/L)	0.0139	0.00082	0.00073	*
		Calculated Hardness-Dependent ⁽⁸⁾ BCAWQG to protect AW 60(HCl)80 mg/L CaCO3	1.327	0.384	0.383	
Phosphorus(P)-Total	-	-	<0.050	<0.050	<0.050	*
Potassium (K)-Total	-	-	27	0.95	0.9	5.41%
Selenium (Se)-Total	0.01	0.002	<0.00050	<0.00050	<0.00050	*
Silicon (Si)-Total	-	-	8.6	6.2	6	3.28%
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)	0.000062	<0.000050	<0.000050	*
Sodium (Na)-Total	-	-	1690	10.4	9.66	7.38%
Strontium (Sr)-Total	-	-	5.15	0.224	0.216	3.64%
Sulfur (S)-Total	-	-	779	32.4	30.5	6.04%
Tellurium (Te)-Total	-	-	<0.00050	<0.00050	<0.00050	*
Thallium (Tl)-Total	-	-	0.000088	<0.000020	<0.000020	*
Thorium (Th)-Total	-	-	<0.00010	<0.00010	<0.00010	*
Tin (Sn)-Total	-	-	<0.00020	<0.00020	<0.00020	*
Titanium (Ti)-Total	-	-	<0.00050	<0.00050	<0.00050	*
Uranium (U)-Total	-	-	0.000317	0.00135	0.00134	0.74%
Vanadium (V)-Total	-	-	<0.0010	<0.0010	<0.0010	*
Zinc (Zn)-Total	5.0	Hardness >90 mg/L	0.0611	<0.0040	<0.0040	*
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	2.381	0.143	0.143	
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	2.355	0.118	0.117	
Zirconium (Zr)-Total	-	-	<0.00010	<0.00010	<0.00010	*

Table 3: Analytical Results for Dissolved Metals in Surface Water			SHA-LE-1	SHA-SW-2	SHA-SW-2	RPD
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8052910-07	8052910-08	8052910-09	
Sample ID			LE-1	SW-1	SW-1 DUP	
Date Sampled/Time			2018-05-30	2018-05-30	2018-05-30	
Physical Tests						
Hardness (as CaCO3) (mg/L)	-	-	3220	237	236	0.42%
pH	7-10.5	6.5-9	7.14	7.44	7.43	0.13%
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	0.0425	<0.0050	<0.0050	*
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (instant max)	0.216	0.364	0.358	
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (30-d Mean)	0.190	0.406	0.396	
Antimony (Sb)-Dissolved	-	-	0.00022	<0.00020	<0.00020	*
Arsenic (As)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	*
Barium (Ba)-Dissolved	-	-	0.0635	0.0149	0.0147	*
Beryllium (Be)-Dissolved	-	-	<0.00010	<0.00010	<0.00010	*
Bismuth (Bi)-Dissolved	-	-	<0.00010	<0.00010	<0.00010	*
Boron (B)-Dissolved	-	-	0.256	0.0164	0.0142	*
Cadmium (Cd)-Dissolved	-	Hardness-Dependent ⁽³⁾	0.000936	<0.000010	<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	Hardness exceeds 455mg/L	0.00143	0.00142	
	-	Calculated Hardness-Dependent BCAWQG to protect AW ⁽³⁾ (long-term max) $e[0.736 * \ln(Hss) - 4.943]$ ug/L H<285mg/L	Hardness exceeds 285mg/L	0.00040	0.00040	
Calcium (Ca)-Dissolved	-	up to 4, highly sensitive to acid inputs 4 to 8, moderately sensitive over 8 low sensitivity	887	78.6	78	0.77%
Chromium (Cr)-Dissolved	-	-	High	High	High	
Cobalt (Co)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	*
Cobalt (Co)-Dissolved	-	-	0.00973	<0.00010	<0.00010	*
Copper (Cu)-Dissolved	-	-	0.00523	0.00115	0.0011	*
Iron (Fe)-Dissolved	-	0.35	<0.010	<0.010	<0.010	*
Lead (Pb)-Dissolved	-	-	<0.00020	<0.00020	<0.00020	*
Lithium, dissolved	-	-	0.00036	<0.00010	<0.00010	*
Magnesium (Mg)-Dissolved	-	-	244	9.91	9.9	0.10%
Manganese (Mn)-Dissolved	-	-	35.3	0.019	0.015	*
Mercury (Hg)-Dissolved	-	-	<0.000010	<0.000010	<0.000010	*
Molybdenum (Mo)-Dissolved	-	-	0.00185	0.00094	0.00094	0.00%
Nickel (Ni)-Dissolved	-	-	0.0137	0.00065	0.00068	*
Phosphorus (P)-Dissolved	-	-	<0.050	<0.050	<0.050	*
Potassium (K)-Dissolved	-	-	25.4	0.94	0.92	2.15%
Selenium (Se)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	*
Silicon (Si)-Dissolved	-	-	8.2	6.1	6	1.65%
Silver (Ag)-Dissolved	-	-	0.000071	<0.000050	<0.000050	*
Sodium (Na)-Dissolved	-	-	1640	9.21	8.87	3.76%
Strontium (Sr)-dissolved	-	-	4.69	0.21	0.21	0.00%
Sulfur (S)-Dissolved	-	-	727	29.7	29.9	0.67%
Tellurium (Te)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	*
Thallium (Tl)-Dissolved	-	-	0.000086	<0.000020	<0.000020	*
Thorium (Th)-Dissolved	-	-	<0.00010	<0.00010	<0.00010	*
Tin (Sn)-Dissolved	-	-	<0.00020	<0.00020	<0.00020	*
Titanium (Ti)-Dissolved	-	-	<0.0050	<0.0050	<0.0050	*
Uranium (U)-Dissolved	-	-	0.000302	0.0013	0.00131	0.77%
Vanadium (V)-Dissolved	-	-	<0.0010	<0.0010	<0.0010	*
Zinc (Zn)-Dissolved	-	-	0.0645	<0.0040	<0.0040	*
Zirconium (Zr)-Dissolved	-	-	<0.00010	<0.00010	<0.00010	*

Notes: Refer to Table Endnotes (attached)

Table 4: Analytical Results for Hydrocarbons and PAHs in			SHA-LE-1	SHA-SW-2	SHA-SW-2	RPD
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8052910-07	8052910-08	8052910-09	
Sample ID			LE-1	SW-1	SW-1 DUP	
Date Sampled/ Time			2018-05-30	2018-05-30	2018-05-30	
Hydrocarbons ug/L						
LEPH	-	-	<250	<250	<250	*
HEPH	-	-	<250	<250	<250	*
Polycyclic Aromatic						
Acenaphthene	-	6 (LONG TERM)	<0.050	<0.050	<0.050	*
Acenaphthylene	-	-	<0.200	<0.200	<0.200	*
Acridine	-	3 (LONG TERM), 0.05 (PHOTOTOXIC)	<0.050	<0.050	<0.050	*
Anthracene	-	4 (LONG TERM), 0.1 (PHOTOTOXIC)	<0.010	<0.010	<0.010	*
Benzo(a)anthracene	0.01	0.1 (LONG TERM), 0.1 (PHOTOTOXIC)	<0.010	<0.010	<0.010	*
Benzo(a)pyrene	-	0.01 (LONG TERM)	<0.010	<0.010	<0.010	*
Benzo(b)fluoranthene	-	-	-	-	-	*
Benzo(b+)fluoranthene	-	-	<0.050	<0.050	<0.050	*
Benzo(g,h,i)perylene	-	-	<0.050	<0.050	<0.050	*
Benzo(k)fluoranthene	-	-	<0.050	<0.050	<0.050	*
2-Chloronaphthalene			<0.100	<0.100	<0.100	*
Chrysene	-	-	<0.050	<0.050	<0.050	*
Dibenz(a,h)anthracene	-	-	<0.010	<0.010	<0.010	*
Fluoranthene	-	4 (LONG TERM), 0.2 (PHOTOTOXIC)	<0.030	<0.030	<0.030	*
Fluorene	-	12 (LONG TERM)	<0.050	<0.050	<0.050	*
Indeno(1,2,3-c,d)pyrene	-	-	<0.050	<0.050	<0.050	*
1-Methylnaphthalene			<0.100	<0.100	<0.100	*
2-Methylnaphthalene			0.138	<0.100	<0.100	*
Naphthalene	-	1 (LONG TERM)	<0.200	<0.200	<0.200	*
Phenanthrene	-	0.3 (LONG TERM)	<0.100	<0.100	<0.100	*
Pyrene	-	0.02 (PHOTOTOXIC)	<0.020	<0.020	<0.020	*
Quinoline	-	-	<0.050	<0.050	<0.050	*

Notes: Refer to Table Endnotes (attached)

Analytical Table Footnotes: Analytical Results for 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

RED FONT

Concentration less than laboratory detection limit (Formula 0.5MRL utilized for statistical analysis)

Table GW1: Analytical Results for Nutrients in Groundwater

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m
Sample ID			8052910-01	8052910-02	8052910-03	8052910-04	8052910-05	8052910-06
			MW6	MW3S	MW3D	MW2	SB1	SB2
Date Sampled	Aquatic Life	Drinking Water	2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30
Physical Tests								
Colour, True (TCU)	-	-	7.4	<5.0	6.4	7.2	<5.0	<5.0
Conductivity (uS/cm)	-	-	1310	352	250	290	637	688
Hardness (as CaCO3) mg/L	-	-	565	143	97.9	127	294	288
pH (pH Units)	-	-	7.14	7.66	7.6	7.64	7.37	7
Total Suspended Solids mg/L			11	10.2	10.2	22.2	89	45.6
Total Dissolved Solids mg/L	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	12.3	4.69	5.65	16.6	95.2	47.5
Anions and Nutrients mg/L								
Alkalinity, Total (as CaCO3)	-	-	617	128	126	126	202	250
Chloride (Cl)	1500	250	39.4	11.7	6.25	7.4	25.7	38.1
Fluoride (F)	2 (H < 50) 3 (H ≥ 50)	1.5						
Nitrate (as N)	400	10	0.25	0.25	0.37	0.27	0.23	0.24
Nitrite (as N) ⁽²⁾ Cl <2 mg/L	0.2	3.2	<0.010	<0.010	<0.010	<0.010	0.232	0.113
Cl 2 - <4 mg/L	0.4							
Cl 4 - <6 mg/L	0.6							
Cl 6 - <8 mg/L	0.8				<0.010	<0.010		
Cl 8 - <10 mg/L	1							
Cl ≥ 10 mg/L	2		<0.010	<0.010			<0.010	<0.010
Sulfate (SO4)	1000	500	77.8	39.5	20.2	17.7	102	61.3

Notes: Refer to Table Endnotes (attached)

Table GW2: Analytical Results for Total Metals in Groundwater

Sample Location		CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2
As-built Well Depths				47m	23m	46m	43m	4.01m	3.28m
Sample ID				8052910-01	8052910-02	8052910-03	8052910-04	8052910-05	8052910-06
Date Sampled		Aquatic Life	Drinking Water	MW6	MW3S	MW3D	MW2	SB1	SB2
Physical Tests mg/L				2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30
Hardness (as CaCO3)		-	-	565	143	97.9	127	294	288
Total Metals mg/L				0.218	0.0675	0.152	0.45	5	1.94
Aluminum (Al)-Total		-	-	<0.00020	<0.00020	<0.00020	<0.00020	0.00025	<0.00020
Antimony (Sb)-Total		-	-	0.00475	0.00098	0.00137	0.00212	0.00072	<0.00050
Arsenic (As)-Total		-	-	0.0868	0.0303	0.0205	0.0328	0.0393	0.0205
Barium (Ba)-Total		-	-	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010
Beryllium (Be)-Total		-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total		-	-	0.0707	0.0203	0.0232	0.0225	0.0101	0.021
Boron (B)-Total		-	-	0.000084	0.00021	0.000167	0.000031	0.000032	<0.000010
Cadmium (Cd)-Total		-	-	197	51.7	36.1	43	120	113
Calcium (Ca)-Total		-	-	0.001	<0.00050	<0.00050	0.0008	0.00628	0.00247
Chromium (Cr)-Total		-	-	0.00255	0.00072	0.00045	0.00068	0.00544	0.00159
Cobalt (Co)-Total		-	-	0.00239	0.00047	0.00062	0.00074	0.0156	0.0063
Copper (Cu)-Total		-	-	2.58	0.096	0.19	0.914	5.7	2.25
Iron (Fe)-Total		-	-	0.00094	<0.00020	<0.00020	0.00032	0.00654	0.00054
Lead (Pb)-Total		-	-	0.0105	<0.00010	<0.00010	<0.00010	0.00155	0.00069
Lithium (Li)-Total		-	-	36.1	7.17	5.54	7.55	10.5	14.5
Magnesium (Mg)-Total		-	-	2.18	0.409	0.316	0.504	0.157	0.0723
Manganese (Mn)-Total		-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Mercury (Hg)-Total		-	-	0.00108	0.00627	0.00683	0.00435	0.0007	0.001
Molybdenum (Mo)-Total		-	-	0.00491	0.00159	0.0015	0.00133	0.00679	0.00233
Nickel (Ni)-Total		-	-	<0.050	0.068	0.096	0.18	0.121	0.065
Phosphorus(P)-Total		-	-	4.03	0.98	0.7	0.79	1.17	1.99
Potassium (K)-Total		-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Selenium (Se)-Total		-	-	12.5	6.5	6.7	7.7	12	10
Silicon (Si)-Total		-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Silver (Ag)-Total		-	-	66.1	14.3	11	9.34	9.85	27
Sodium (Na)-Total		-	-	0.644	0.239	0.206	0.178	0.284	0.346
Strontium (Sr)-Total		-	-	25.9	15	8.9	7.5	36.2	25.3
Sulfur (S)-Total		-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tellurium (Te)-Total		-	-	0.000052	0.000031	<0.000020	<0.000020	<0.000020	<0.000020
Thallium (Tl)-Total		-	-	<0.00010	<0.00010	0.00025	<0.00010	<0.00010	<0.00010
Thorium (Th)-Total		-	-	0.00106	<0.00020	<0.00020	<0.00020	0.00028	0.00096
Tin (Sn)-Total		-	-	0.0115	<0.0050	<0.0050	0.0292	0.289	0.136
Titanium (Ti)-Total		-	-	0.00743	0.00109	0.000755	0.000871	0.00231	0.00202
Uranium (U)-Total		-	-	<0.0010	<0.0010	<0.0010	0.0021	0.0144	0.0056
Vanadium (V)-Total		-	-	0.0095	<0.0040	<0.0040	<0.0040	0.0166	0.0066
Zinc (Zn)-Total		-	-	0.00023	<0.00010	0.00013	0.00013	0.00026	0.00012
Zirconium (Zr)-Total		-	-						

Notes: Refer to Table Endnotes (attached)

Table GW3: Analytical Results for Dissolved Metals in Groundwater

Sample Location	CSR Standards ^(a)		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m
Sample ID			8052910-01	8052910-02	8052910-03	8052910-04	8052910-05	8052910-06
			MW6	MW3S	MW3D	MW2	SB1	SB2
Date Sampled	Aquatic Life	Drinking Water	2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30
Physical Tests mg/L								
Hardness (as CaCO3)	-	-	565	143	97.9	127	294	288
Dissolved Metals mg/L								
Aluminum (Al)-Dissolved	-	9.5	<0.0050	<0.0050	<0.0050	<0.0050	0.0054	<0.0050
Antimony (Sb)-Dissolved	0.2	0.006	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Arsenic (As)-Dissolved	0.05	0.01	0.00425	0.00087	0.00125	0.00198	<0.00050	<0.00050
Barium (Ba)-Dissolved	10	1	0.0861	0.0307	0.0193	0.0322	0.0154	0.0109
Beryllium (Be)-Dissolved	0.053	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Boron (B)-Dissolved	50	5	0.0635	0.0176	0.0193	0.02	0.0079	0.0172
Cadmium (Cd)-Dissolved	0.0001 (H<30)	0.005						
	0.0003 (H=30 <90)							
	0.0005 (H=90<150)			0.000017	<0.000010	<0.000010		
	0.0006 (H=150<210)		<0.000010				0.000015	<0.000010
Calcium (Ca)-Dissolved	-	-	171	46.2	31	39.8	104	95.9
Chromium (Cr)-Dissolved	0.01	0.05	<0.00050	<0.00050	0.00064	<0.00050	<0.00050	0.00051
Cobalt (Co)-Dissolved	0.04	-	0.00225	0.00064	0.00037	0.00037	0.00013	<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)			<0.00040		<0.00040		
	0.07 (H=150<175)							
	0.08 (H=175<200)							
	0.09 (H=200)		<0.00040				0.00083	0.0008
Iron (Fe)-Dissolved	-	6.5	2.32	0.037	0.087	0.249	<0.010	<0.010
Lead (Pb)-Dissolved	0.04 (H<50)	0.01						
	0.05 (H=50<100)				<0.00020			
	0.06 (H=100<200)			<0.00020		<0.00020		
	0.11 (H=200<300)						<0.00020	<0.00020
Lithium (Li)-Dissolved	-	-	<0.00020					
Magnesium (Mg)-Dissolved	-	100	0.00985	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese (Mn)-Dissolved	-	0.55	33.4	6.57	4.96	6.77	8.29	11.7
Mercury (Hg)-Dissolved	0.001	0.001	2.21	0.403	0.312	0.521	0.00093	0.00172
Molybdenum (Mo)-Dissolved	10	0.25	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Nickel (Ni)-Dissolved	0.25 (H<60)	-	0.00082	0.00635	0.00718	0.00431	0.00065	0.00096
	0.65 (H=60<120)				0.00142			
	1.1 (H=120<180)			0.00137		0.00079		
	1.5 (H=180)		0.00351				0.00145	0.00044
Phosphorus (P)-Dissolved	-	-	<0.050	<0.050	0.069	0.11	<0.050	<0.050
Potassium (K)-Dissolved	-	-	3.86	0.96	0.66	0.77	0.8	1.58
Selenium (Se)-Dissolved	0.01	0.01	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silicon (Si)-Dissolved	-	-	12.1	6.4	6.3	7	4.8	6.2
Silver (Ag)-Dissolved	0.0005 (H<100)	-		<0.000050				
Sodium (Na)-Dissolved	0.015 (H=100)	200	<0.000050		<0.000050	<0.000050	<0.000050	<0.000050
	-		58.6	12.3	9.76	8.59	8.63	22.1
Strontium (Sr)-Dissolved	-	-	0.621	0.229	0.194	0.172	0.256	0.299
Sulfur (S)-Dissolved	-	-	24.5	14.3	8.5	7.1	35.1	22.1
Tellurium (Te)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Dissolved	0.003	-	<0.000020	0.000027	<0.000020	<0.000020	<0.000020	<0.000020
Thorium (Th)-Dissolved	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Titanium (Ti)-Dissolved	1	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (U)-Dissolved	3	0.02	0.0073	0.00104	0.000621	0.000853	0.00196	0.00183
Vanadium (V)-Dissolved	-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Dissolved	0.075 (H<90)	5			<0.0040			
	0.150 (H=90<100)					<0.0040		
	0.900 (H=100<200)			<0.0040				
	1.650 (H=200<300)						<0.0040	<0.0040
	2.4 (H=300<400)		<0.0040					
Zirconium (Zr)-Dissolved	-	-	0.00021	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Notes: Refer to Table Endnotes (attached)

Table GW4: Analytical Results for Hydrocarbons and PAHs in Groundwater

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m
Sample ID			8052910-01	8052910-02	8052910-03	8052910-04	8052910-05	8052910-06
			MW6	MW3S	MW3D	MW2	SB1	SB2
Date Sampled	Aquatic Life	Drinking Water	2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30
Turbidity (NTU)	-	-	12.3	4.69	5.65	16.6	95.2	47.5
Hydrocarbons ug/L								
EPH10-19	5000	5000	<250	<250	<250	<250	<250	<250
EPH10-19 (SG)	5000	5000						
EPH19-32	-	-	<250	<250	<250	<250	<250	<250
EPH19-32 (SG)	-	-						
LEPH	500	-	<250	<250	<250	<250	<250	<250
HEPH	-	-	<250	<250	<250	<250	<250	<250
Polycyclic Aromatic Hydrocarbons ug/L								
Acenaphthene	60	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	-	-	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Acridine	0.5	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	1	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benz(a)anthracene	1	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(a)pyrene	0.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(b)fluoranthene	-	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2-Chloronaphthalene			<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Chrysene	1	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Fluoranthene	2	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Fluorene	120	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1-Methylnaphthalene			<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
2-Methylnaphthalene			<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Naphthalene	10	-	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Phenanthrene	3	-	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Pyrene	0.2	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Quinoline	34	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Notes: Refer to Table Endnotes (attached)

Analytical Table Footnotes: Analytical Results for Groundwater

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

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

LAB ID				8052910-01	8052910-02	8052910-03	8052910-04	8052910-05
CLIENT ID				MW6	MW3S	MW3D	MW2	SB1
DATE SAMPLED				2018-05-30	2018-05-30	2018-05-30	2018-05-30	2018-05-30
DATE RECEIVED				2018-05-31	2018-05-31	2018-05-31	2018-05-31	2018-05-31
MATRIX				Water	Water	Water	Water	Water
General Method	Analyte	Units	MRL					
Anions	Chloride	mg/L	0.1	39.4	11.7	6.25	7.4	25.7
Anions	Fluoride	mg/L	0.1	0.25	0.25	0.37	0.27	0.23
Anions	Nitrate (as N)	mg/L	0.01	<0.010	<0.010	<0.010	<0.010	0.232
Anions	Nitrite (as N)	mg/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Anions	Sulfate	mg/L	1	77.8	39.5	20.2	17.7	102
General Parameters	Colour, True	CU	5	7.4	<5.0	6.4	7.2	<5.0
General Parameters	Alkalinity, Total (as CaCO3)	mg/L	1	617	128	126	126	202
General Parameters	Alkalinity, Phenolphthalein (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Bicarbonate (as CaCO3)	mg/L	1	617	128	126	126	202
General Parameters	Alkalinity, Carbonate (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Hydroxide (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0
General Parameters	Chromium, Hexavalent	mg/L	0.001					
General Parameters	Solids, Total Suspended	mg/L	2	11	10.2	10.2	22.2	89
General Parameters	Turbidity	NTU	0.1	12.3	4.69	5.65	16.6	95.2
General Parameters	pH	pH units	0.1	7.14	7.66	7.6	7.64	7.37
General Parameters	Conductivity (EC)	uS/cm	2	1310	352	250	290	637
Calculated Parameters	Chromium, Trivalent	mg/L	0.001					
Calculated Parameters	Hardness, Total (as CaCO3)	mg/L	0.5	565	143	97.9	127	294
Dissolved Metals	Aluminum, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050	0.0054
Dissolved Metals	Antimony, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Arsenic, dissolved	mg/L	0.0005	0.00425	0.00087	0.00125	0.00198	<0.00050
Dissolved Metals	Barium, dissolved	mg/L	0.005	0.0861	0.0307	0.0193	0.0322	0.0154
Dissolved Metals	Beryllium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Bismuth, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Boron, dissolved	mg/L	0.005	0.0635	0.0176	0.0193	0.02	0.0079
Dissolved Metals	Cadmium, dissolved	mg/L	0.00001	<0.000010	0.000017	<0.000010	<0.000010	0.000015
Dissolved Metals	Calcium, dissolved	mg/L	0.2	171	46.2	31	39.8	104
Dissolved Metals	Chromium, dissolved	mg/L	0.0005	<0.00050	<0.00050	0.00064	<0.00050	<0.00050
Dissolved Metals	Cobalt, dissolved	mg/L	0.0001	0.00225	0.00064	0.00037	0.00037	0.00013
Dissolved Metals	Copper, dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	0.00083
Dissolved Metals	Iron, dissolved	mg/L	0.01	2.32	0.037	0.087	0.249	<0.010
Dissolved Metals	Lead, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Lithium, dissolved	mg/L	0.0001	0.00985	<0.00010	<0.00010	<0.00010	<0.00010

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

Dissolved Metals	Magnesium, dissolved	mg/L	0.01	33.4	6.57	4.96	6.77	8.29
Dissolved Metals	Manganese, dissolved	mg/L	0.0002	2.21	0.403	0.312	0.521	0.00093
Dissolved Metals	Mercury, dissolved	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Dissolved Metals	Molybdenum, dissolved	mg/L	0.0001	0.00082	0.00635	0.00718	0.00431	0.00065
Dissolved Metals	Nickel, dissolved	mg/L	0.0004	0.00351	0.00137	0.00142	0.00079	0.00145
Dissolved Metals	Phosphorus, dissolved	mg/L	0.05	<0.050	<0.050	0.069	0.11	<0.050
Dissolved Metals	Potassium, dissolved	mg/L	0.1	3.86	0.96	0.66	0.77	0.8
Dissolved Metals	Selenium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Silicon, dissolved	mg/L	1	12.1	6.4	6.3	7	4.8
Dissolved Metals	Silver, dissolved	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dissolved Metals	Sodium, dissolved	mg/L	0.1	58.6	12.3	9.76	8.59	8.63
Dissolved Metals	Strontium, dissolved	mg/L	0.001	0.621	0.229	0.194	0.172	0.256
Dissolved Metals	Sulfur, dissolved	mg/L	3	24.5	14.3	8.5	7.1	35.1
Dissolved Metals	Tellurium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Thallium, dissolved	mg/L	0.00002	<0.000020	0.000027	<0.000020	<0.000020	<0.000020
Dissolved Metals	Thorium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Tin, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Titanium, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Dissolved Metals	Tungsten, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dissolved Metals	Uranium, dissolved	mg/L	0.00002	0.0073	0.00104	0.000621	0.000853	0.00196
Dissolved Metals	Vanadium, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dissolved Metals	Zinc, dissolved	mg/L	0.004	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Dissolved Metals	Zirconium, dissolved	mg/L	0.0001	0.00021	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Aluminum, total	mg/L	0.005	0.218	0.0675	0.152	0.45	5
Total Metals	Antimony, total	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	0.00025
Total Metals	Arsenic, total	mg/L	0.0005	0.00475	0.00098	0.00137	0.00212	0.00072
Total Metals	Barium, total	mg/L	0.005	0.0868	0.0303	0.0205	0.0328	0.0393
Total Metals	Beryllium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	0.00011
Total Metals	Bismuth, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Boron, total	mg/L	0.005	0.0707	0.0203	0.0232	0.0225	0.0101
Total Metals	Cadmium, total	mg/L	0.00001	0.000084	0.00021	0.000167	0.000031	0.000032
Total Metals	Calcium, total	mg/L	0.2	197	51.7	36.1	43	120
Total Metals	Chromium, total	mg/L	0.0005	0.001	<0.00050	<0.00050	0.0008	0.00628
Total Metals	Cobalt, total	mg/L	0.0001	0.00255	0.00072	0.00045	0.00068	0.00544
Total Metals	Copper, total	mg/L	0.0004	0.00239	0.00047	0.00062	0.00074	0.0156
Total Metals	Iron, total	mg/L	0.01	2.58	0.096	0.19	0.914	5.7
Total Metals	Lead, total	mg/L	0.0002	0.00094	<0.00020	<0.00020	0.00032	0.00654
Total Metals	Lithium, total	mg/L	0.0001	0.0105	<0.00010	<0.00010	<0.00010	0.00155
Total Metals	Magnesium, total	mg/L	0.01	36.1	7.17	5.54	7.55	10.5

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

Total Metals	Manganese, total	mg/L	0.0002	2.18	0.409	0.316	0.504	0.157
Total Metals	Mercury, total	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Total Metals	Molybdenum, total	mg/L	0.0001	0.00108	0.00627	0.00683	0.00435	0.0007
Total Metals	Nickel, total	mg/L	0.0004	0.00491	0.00159	0.0015	0.00133	0.00679
Total Metals	Phosphorus, total	mg/L	0.05	<0.050	0.068	0.096	0.18	0.121
Total Metals	Potassium, total	mg/L	0.1	4.03	0.98	0.7	0.79	1.17
Total Metals	Selenium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Silicon, total	mg/L	1	12.5	6.5	6.7	7.7	12
Total Metals	Silver, total	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Total Metals	Sodium, total	mg/L	0.1	66.1	14.3	11	9.34	9.85
Total Metals	Strontium, total	mg/L	0.001	0.644	0.239	0.206	0.178	0.284
Total Metals	Sulfur, total	mg/L	3	25.9	15	8.9	7.5	36.2
Total Metals	Tellurium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Thallium, total	mg/L	0.00002	0.000052	0.000031	<0.000020	<0.000020	<0.000020
Total Metals	Thorium, total	mg/L	0.0001	<0.00010	<0.00010	0.00025	<0.00010	<0.00010
Total Metals	Tin, total	mg/L	0.0002	0.00106	<0.00020	<0.00020	<0.00020	0.00028
Total Metals	Titanium, total	mg/L	0.005	0.0115	<0.0050	<0.0050	0.0292	0.289
Total Metals	Tungsten, total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Metals	Uranium, total	mg/L	0.00002	0.00743	0.00109	0.000755	0.000871	0.00231
Total Metals	Vanadium, total	mg/L	0.001	<0.0010	<0.0010	<0.0010	0.0021	0.0144
Total Metals	Zinc, total	mg/L	0.004	0.0095	<0.0040	<0.0040	<0.0040	0.0166
Total Metals	Zirconium, total	mg/L	0.0001	0.00023	<0.00010	0.00013	0.00013	0.00026
BCMOE Aggregate Hydrocarbons	EPHw10-19	ug/L	250	<250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	EPHw19-32	ug/L	250	<250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	LEPHw	ug/L	250	<250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	HEPHw	ug/L	250	<250	<250	<250	<250	<250
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthylene	ug/L	0.2	<0.200	<0.200	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Acridine	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Anthracene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benz(a)anthracene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(a)pyrene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(b+j)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(g,h,i)perylene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(k)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	2-Chloronaphthalene	ug/L	0.1	<0.100	<0.100	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Chrysene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Dibenz(a,h)anthracene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Fluoranthene	ug/L	0.03	<0.030	<0.030	<0.030	<0.030	<0.030

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

Polycyclic Aromatic Hydrocarbons (PAH)	Fluorene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Indeno(1,2,3-cd)pyrene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	1-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Naphthalene	ug/L	0.2	<0.200	<0.200	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Phenanthrene	ug/L	0.1	<0.100	<0.100	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Pyrene	ug/L	0.02	<0.020	<0.020	<0.020	<0.020	<0.020
Polycyclic Aromatic Hydrocarbons (PAH)	Quinoline	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

LAB ID				8052910-06	8052910-07	8052910-08	8052910-09
CLIENT ID				SB2	LE-1	SW-1	SW-1 DUP
DATE SAMPLED				2018-05-30	2018-05-30	2018-05-30	2018-05-30
DATE RECEIVED				2018-05-31	2018-05-31	2018-05-31	2018-05-31
MATRIX				Water	Water	Water	Water
General Method	Analyte	Units	MRL				
Anions	Chloride	mg/L	0.1	38.1	3240	17.5	17.2
Anions	Fluoride	mg/L	0.1	0.24	<1.00	<0.10	<0.10
Anions	Nitrate (as N)	mg/L	0.01	0.113	1.56	0.292	0.333
Anions	Nitrite (as N)	mg/L	0.01	<0.010	<0.100	<0.010	<0.010
Anions	Sulfate	mg/L	1	61.3	1740	86.2	85
General Parameters	Colour, True	CU	5	<5.0	8	<5.0	<5.0
General Parameters	Alkalinity, Total (as CaCO3)	mg/L	1	250	62	154	156
General Parameters	Alkalinity, Phenolphthalein (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Bicarbonate (as CaCO3)	mg/L	1	250	62	154	156
General Parameters	Alkalinity, Carbonate (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Hydroxide (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0
General Parameters	Chromium, Hexavalent	mg/L	0.001			0.0018	0.0018
General Parameters	Solids, Total Suspended	mg/L	2	45.6	<2.0	2	<2.5
General Parameters	Turbidity	NTU	0.1	47.5	0.45	1.05	0.38
General Parameters	pH	pH units	0.1	7	7.14	7.44	7.43
General Parameters	Conductivity (EC)	uS/cm	2	688	12400	515	515
Calculated Parameters	Chromium, Trivalent	mg/L	0.001			<0.00100	<0.00100
Calculated Parameters	Hardness, Total (as CaCO3)	mg/L	0.5	288	3220	237	236
Dissolved Metals	Aluminum, dissolved	mg/L	0.005	<0.0050	0.0425	<0.0050	<0.0050
Dissolved Metals	Antimony, dissolved	mg/L	0.0002	<0.00020	0.00022	<0.00020	<0.00020
Dissolved Metals	Arsenic, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Barium, dissolved	mg/L	0.005	0.0109	0.0635	0.0149	0.0147
Dissolved Metals	Beryllium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Bismuth, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Boron, dissolved	mg/L	0.005	0.0172	0.256	0.0164	0.0142
Dissolved Metals	Cadmium, dissolved	mg/L	0.00001	<0.000010	0.000936	<0.000010	<0.000010
Dissolved Metals	Calcium, dissolved	mg/L	0.2	95.9	887	78.6	78
Dissolved Metals	Chromium, dissolved	mg/L	0.0005	0.00051	<0.00050	<0.00050	<0.00050
Dissolved Metals	Cobalt, dissolved	mg/L	0.0001	<0.00010	0.00973	<0.00010	<0.00010
Dissolved Metals	Copper, dissolved	mg/L	0.0004	0.0008	0.00523	0.00115	0.0011
Dissolved Metals	Iron, dissolved	mg/L	0.01	<0.010	<0.010	<0.010	<0.010
Dissolved Metals	Lead, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Lithium, dissolved	mg/L	0.0001	<0.00010	0.00036	<0.00010	<0.00010

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

Dissolved Metals	Magnesium, dissolved	mg/L	0.01	11.7	244	9.91	9.9
Dissolved Metals	Manganese, dissolved	mg/L	0.0002	0.00172	35.3	0.019	0.015
Dissolved Metals	Mercury, dissolved	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010
Dissolved Metals	Molybdenum, dissolved	mg/L	0.0001	0.00096	0.00185	0.00094	0.00094
Dissolved Metals	Nickel, dissolved	mg/L	0.0004	0.00044	0.0137	0.00065	0.00068
Dissolved Metals	Phosphorus, dissolved	mg/L	0.05	<0.050	<0.050	<0.050	<0.050
Dissolved Metals	Potassium, dissolved	mg/L	0.1	1.58	25.4	0.94	0.92
Dissolved Metals	Selenium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Silicon, dissolved	mg/L	1	6.2	8.2	6.1	6
Dissolved Metals	Silver, dissolved	mg/L	0.00005	<0.000050	0.000071	<0.000050	<0.000050
Dissolved Metals	Sodium, dissolved	mg/L	0.1	22.1	1640	9.21	8.87
Dissolved Metals	Strontium, dissolved	mg/L	0.001	0.299	4.69	0.21	0.21
Dissolved Metals	Sulfur, dissolved	mg/L	3	22.1	727	29.7	29.9
Dissolved Metals	Tellurium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Thallium, dissolved	mg/L	0.00002	<0.000020	0.000086	<0.000020	<0.000020
Dissolved Metals	Thorium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Tin, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Titanium, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050
Dissolved Metals	Tungsten, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010
Dissolved Metals	Uranium, dissolved	mg/L	0.00002	0.00183	0.000302	0.0013	0.00131
Dissolved Metals	Vanadium, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010
Dissolved Metals	Zinc, dissolved	mg/L	0.004	<0.0040	0.0645	<0.0040	<0.0040
Dissolved Metals	Zirconium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Aluminum, total	mg/L	0.005	1.94	0.229	0.0355	0.0246
Total Metals	Antimony, total	mg/L	0.0002	<0.00020	0.00024	<0.00020	<0.00020
Total Metals	Arsenic, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Barium, total	mg/L	0.005	0.0205	0.066	0.0152	0.0149
Total Metals	Beryllium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Bismuth, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Boron, total	mg/L	0.005	0.021	0.281	0.018	0.0159
Total Metals	Cadmium, total	mg/L	0.00001	<0.000010	0.000949	0.000011	<0.000010
Total Metals	Calcium, total	mg/L	0.2	113	991	89.3	86
Total Metals	Chromium, total	mg/L	0.0005	0.00247	0.00057	<0.00050	<0.00050
Total Metals	Cobalt, total	mg/L	0.0001	0.00159	0.01	0.00014	0.00011
Total Metals	Copper, total	mg/L	0.0004	0.0063	0.00525	0.00149	0.00217
Total Metals	Iron, total	mg/L	0.01	2.25	0.028	0.033	0.024
Total Metals	Lead, total	mg/L	0.0002	0.00054	<0.00020	<0.00020	<0.00020
Total Metals	Lithium, total	mg/L	0.0001	0.00069	0.00039	0.00011	<0.00010
Total Metals	Magnesium, total	mg/L	0.01	14.5	258	11.1	10.4

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

Total Metals	Manganese, total	mg/L	0.0002	0.0723	35.9	0.0383	0.0316
Total Metals	Mercury, total	mg/L	0.00001	<0.000010	0.000015	<0.000010	<0.000010
Total Metals	Molybdenum, total	mg/L	0.0001	0.001	0.00178	0.00095	0.00088
Total Metals	Nickel, total	mg/L	0.0004	0.00233	0.0139	0.00082	0.00073
Total Metals	Phosphorus, total	mg/L	0.05	0.065	<0.050	<0.050	<0.050
Total Metals	Potassium, total	mg/L	0.1	1.99	27	0.95	0.9
Total Metals	Selenium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Silicon, total	mg/L	1	10	8.6	6.2	6
Total Metals	Silver, total	mg/L	0.00005	<0.000050	0.000062	<0.000050	<0.000050
Total Metals	Sodium, total	mg/L	0.1	27	1690	10.4	9.66
Total Metals	Strontium, total	mg/L	0.001	0.346	5.15	0.224	0.216
Total Metals	Sulfur, total	mg/L	3	25.3	779	32.4	30.5
Total Metals	Tellurium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Thallium, total	mg/L	0.00002	<0.000020	0.000088	<0.000020	<0.000020
Total Metals	Thorium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Tin, total	mg/L	0.0002	0.00096	<0.00020	<0.00020	<0.00020
Total Metals	Titanium, total	mg/L	0.005	0.136	<0.0050	<0.0050	<0.0050
Total Metals	Tungsten, total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010
Total Metals	Uranium, total	mg/L	0.00002	0.00202	0.000317	0.00135	0.00134
Total Metals	Vanadium, total	mg/L	0.001	0.0056	<0.0010	<0.0010	<0.0010
Total Metals	Zinc, total	mg/L	0.004	0.0066	0.0611	<0.0040	<0.0040
Total Metals	Zirconium, total	mg/L	0.0001	0.00012	<0.00010	<0.00010	<0.00010
BCMOE Aggregate Hydrocarbons	EPHw10-19	ug/L	250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	EPHw19-32	ug/L	250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	LEPHw	ug/L	250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	HEPHw	ug/L	250	<250	<250	<250	<250
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthylene	ug/L	0.2	<0.200	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Acridine	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Anthracene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benz(a)anthracene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(a)pyrene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(b+j)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(g,h,i)perylene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(k)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	2-Chloronaphthalene	ug/L	0.1	<0.100	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Chrysene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Dibenz(a,h)anthracene	ug/L	0.01	<0.010	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Fluoranthene	ug/L	0.03	<0.030	<0.030	<0.030	<0.030

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8052910
Report Date: 2018-06-14 15:20:57

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

Polycyclic Aromatic Hydrocarbons (PAH)	Fluorene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Indeno(1,2,3-cd)pyrene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	1-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene	ug/L	0.1	<0.100	0.138	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Naphthalene	ug/L	0.2	<0.200	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Phenanthrene	ug/L	0.1	<0.100	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Pyrene	ug/L	0.02	<0.020	<0.020	<0.020	<0.020
Polycyclic Aromatic Hydrocarbons (PAH)	Quinoline	ug/L	0.05	<0.050	<0.050	<0.050	<0.050

CERTIFICATE OF ANALYSIS

REPORTED TO Allterra Construction
2158 Millstream Road
Victoria, BC V9B 6H4

ATTENTION Rahim Gaidhar

PO NUMBER P15-06 SIRM

PROJECT P17-932

PROJECT INFO

WORK ORDER 8052910

RECEIVED / TEMP 2018-05-31 10:07 / 13°C

REPORTED 2018-06-14 15:20

COC NUMBER May 30 2018

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 17025:2005 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



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

We've Got Chemistry



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

Ahead of the Curve



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

Work Order Comments:

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

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

Authorized By:

Bryan Shaw, Ph.D., P.Chem.
Client Service Coordinator



1-888-311-8846 | www.caro.ca

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8052910-01) Matrix: Water Sampled: 2018-05-30 09:30					
Anions					
Chloride	39.4	0.10	mg/L	2018-06-02	
Fluoride	0.25	0.10	mg/L	2018-06-02	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	77.8	1.0	mg/L	2018-06-02	
General Parameters					
Alkalinity, Total (as CaCO ₃)	617	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO ₃)	617	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Colour, True	7.4	5.0	CU	2018-06-01	
Conductivity (EC)	1310	2.0	µS/cm	2018-06-05	
pH	7.14	0.10	pH units	2018-06-04	HT2
Solids, Total Suspended	11.0	2.0	mg/L	2018-06-05	
Turbidity	12.3	0.10	NTU	2018-06-01	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	565	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	0.00425	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0861	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.0635	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Calcium, dissolved	171	0.20	mg/L	2018-06-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	0.00225	0.00010	mg/L	2018-06-07	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-06-07	
Iron, dissolved	2.32	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	0.00985	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	33.4	0.010	mg/L	2018-06-07	
Manganese, dissolved	2.21	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00082	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00351	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW6 (8052910-01) | Matrix: Water | Sampled: 2018-05-30 09:30, Continued

Dissolved Metals, Continued

Potassium, dissolved	3.86	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	12.1	1.0	mg/L	2018-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	58.6	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.621	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	24.5	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.00730	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	0.00021	0.00010	mg/L	2018-06-07	

Total Metals

Aluminum, total	0.218	0.0050	mg/L	2018-06-06	
Antimony, total	< 0.00020	0.00020	mg/L	2018-06-06	
Arsenic, total	0.00475	0.00050	mg/L	2018-06-06	
Barium, total	0.0868	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0707	0.0050	mg/L	2018-06-06	
Cadmium, total	0.000084	0.000010	mg/L	2018-06-06	
Calcium, total	197	0.20	mg/L	2018-06-06	
Chromium, total	0.00100	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00255	0.00010	mg/L	2018-06-06	
Copper, total	0.00239	0.00040	mg/L	2018-06-06	
Iron, total	2.58	0.010	mg/L	2018-06-06	
Lead, total	0.00094	0.00020	mg/L	2018-06-06	
Lithium, total	0.0105	0.00010	mg/L	2018-06-06	
Magnesium, total	36.1	0.010	mg/L	2018-06-06	
Manganese, total	2.18	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00108	0.00010	mg/L	2018-06-06	
Nickel, total	0.00491	0.00040	mg/L	2018-06-06	
Phosphorus, total	< 0.050	0.050	mg/L	2018-06-06	
Potassium, total	4.03	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	12.5	1.0	mg/L	2018-06-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8052910-01) Matrix: Water Sampled: 2018-05-30 09:30, Continued					
Total Metals, Continued					
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	66.1	0.10	mg/L	2018-06-06	
Strontium, total	0.644	0.0010	mg/L	2018-06-06	
Sulfur, total	25.9	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	0.000052	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	0.00106	0.00020	mg/L	2018-06-06	
Titanium, total	0.0115	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.00743	0.000020	mg/L	2018-06-06	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-06-06	
Zinc, total	0.0095	0.0040	mg/L	2018-06-06	
Zirconium, total	0.00023	0.00010	mg/L	2018-06-06	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	74	60-140	%	2018-06-14	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-06-13	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-13	
Acridine	< 0.050	0.050	µg/L	2018-06-13	
Anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Chrysene	< 0.050	0.050	µg/L	2018-06-13	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-13	
Fluorene	< 0.050	0.050	µg/L	2018-06-13	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-13	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Naphthalene	< 0.200	0.200	µg/L	2018-06-13	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-13	
Pyrene	< 0.020	0.020	µg/L	2018-06-13	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW6 (8052910-01) | Matrix: Water | Sampled: 2018-05-30 09:30, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Quinoline	< 0.050	0.050	µg/L	2018-06-13	
Surrogate: Acridine-d9	76	50-140	%	2018-06-13	
Surrogate: Naphthalene-d8	96	50-140	%	2018-06-13	
Surrogate: Perylene-d12	76	50-140	%	2018-06-13	

MW3S (8052910-02) | Matrix: Water | Sampled: 2018-05-30 11:15

Anions

Chloride	11.7	0.10	mg/L	2018-06-02	
Fluoride	0.25	0.10	mg/L	2018-06-02	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	39.5	1.0	mg/L	2018-06-02	

General Parameters

Alkalinity, Total (as CaCO ₃)	128	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO ₃)	128	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Colour, True	< 5.0	5.0	CU	2018-06-01	
Conductivity (EC)	352	2.0	µS/cm	2018-06-05	
pH	7.66	0.10	pH units	2018-06-05	HT2
Solids, Total Suspended	10.2	2.0	mg/L	2018-06-05	
Turbidity	4.69	0.10	NTU	2018-06-01	

Calculated Parameters

Hardness, Total (as CaCO ₃)	143	0.500	mg/L	N/A	
---	-----	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	0.00087	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0307	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.0176	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	0.000017	0.000010	mg/L	2018-06-07	
Calcium, dissolved	46.2	0.20	mg/L	2018-06-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	0.00064	0.00010	mg/L	2018-06-07	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-06-07	
Iron, dissolved	0.037	0.010	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
MW3S (8052910-02) Matrix: Water Sampled: 2018-05-30 11:15, Continued					
<i>Dissolved Metals, Continued</i>					
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	6.57	0.010	mg/L	2018-06-07	
Manganese, dissolved	0.403	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00635	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00137	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-06-07	
Potassium, dissolved	0.96	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	6.4	1.0	mg/L	2018-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	12.3	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.229	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	14.3	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	0.000027	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.00104	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
<i>Total Metals</i>					
Aluminum, total	0.0675	0.0050	mg/L	2018-06-06	
Antimony, total	< 0.00020	0.00020	mg/L	2018-06-06	
Arsenic, total	0.00098	0.00050	mg/L	2018-06-06	
Barium, total	0.0303	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0203	0.0050	mg/L	2018-06-06	
Cadmium, total	0.000210	0.000010	mg/L	2018-06-06	
Calcium, total	51.7	0.20	mg/L	2018-06-06	
Chromium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00072	0.00010	mg/L	2018-06-06	
Copper, total	0.00047	0.00040	mg/L	2018-06-06	
Iron, total	0.096	0.010	mg/L	2018-06-06	
Lead, total	< 0.00020	0.00020	mg/L	2018-06-06	
Lithium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Magnesium, total	7.17	0.010	mg/L	2018-06-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW3S (8052910-02) | Matrix: Water | Sampled: 2018-05-30 11:15, Continued

Total Metals, Continued

Manganese, total	0.409	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00627	0.00010	mg/L	2018-06-06	
Nickel, total	0.00159	0.00040	mg/L	2018-06-06	
Phosphorus, total	0.068	0.050	mg/L	2018-06-06	
Potassium, total	0.98	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	6.5	1.0	mg/L	2018-06-06	
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	14.3	0.10	mg/L	2018-06-06	
Strontium, total	0.239	0.0010	mg/L	2018-06-06	
Sulfur, total	15.0	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	0.000031	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	< 0.00020	0.00020	mg/L	2018-06-06	
Titanium, total	< 0.0050	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.00109	0.000020	mg/L	2018-06-06	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-06-06	
Zinc, total	< 0.0040	0.0040	mg/L	2018-06-06	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-06-06	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	69	60-140	%	2018-06-14	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-06-13	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-13	
Acridine	< 0.050	0.050	µg/L	2018-06-13	
Anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Chrysene	< 0.050	0.050	µg/L	2018-06-13	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-13	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW3S (8052910-02) | Matrix: Water | Sampled: 2018-05-30 11:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Fluoranthene	< 0.030	0.030	µg/L	2018-06-13	
Fluorene	< 0.050	0.050	µg/L	2018-06-13	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-13	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Naphthalene	< 0.200	0.200	µg/L	2018-06-13	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-13	
Pyrene	< 0.020	0.020	µg/L	2018-06-13	
Quinoline	< 0.050	0.050	µg/L	2018-06-13	
Surrogate: Acridine-d9	76	50-140	%	2018-06-13	
Surrogate: Naphthalene-d8	88	50-140	%	2018-06-13	
Surrogate: Perylene-d12	76	50-140	%	2018-06-13	

MW3D (8052910-03) | Matrix: Water | Sampled: 2018-05-30 11:45

Anions

Chloride	6.25	0.10	mg/L	2018-06-02	
Fluoride	0.37	0.10	mg/L	2018-06-02	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	20.2	1.0	mg/L	2018-06-02	

General Parameters

Alkalinity, Total (as CaCO3)	126	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO3)	126	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Colour, True	6.4	5.0	CU	2018-06-01	
Conductivity (EC)	250	2.0	µS/cm	2018-06-05	
pH	7.60	0.10	pH units	2018-06-05	HT2
Solids, Total Suspended	10.2	2.0	mg/L	2018-06-05	
Turbidity	5.65	0.10	NTU	2018-06-01	

Calculated Parameters

Hardness, Total (as CaCO3)	97.9	0.500	mg/L	N/A	
----------------------------	------	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	0.00125	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0193	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
MW3D (8052910-03) Matrix: Water Sampled: 2018-05-30 11:45, Continued					
<i>Dissolved Metals, Continued</i>					
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.0193	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Calcium, dissolved	31.0	0.20	mg/L	2018-06-07	
Chromium, dissolved	0.00064	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	0.00037	0.00010	mg/L	2018-06-07	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-06-07	
Iron, dissolved	0.087	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	4.96	0.010	mg/L	2018-06-07	
Manganese, dissolved	0.312	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00718	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00142	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	0.069	0.050	mg/L	2018-06-07	
Potassium, dissolved	0.66	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	6.3	1.0	mg/L	2018-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	9.76	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.194	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	8.5	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.000621	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
<i>Total Metals</i>					
Aluminum, total	0.152	0.0050	mg/L	2018-06-06	
Antimony, total	< 0.00020	0.00020	mg/L	2018-06-06	
Arsenic, total	0.00137	0.00050	mg/L	2018-06-06	
Barium, total	0.0205	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0232	0.0050	mg/L	2018-06-06	
Cadmium, total	0.000167	0.000010	mg/L	2018-06-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW3D (8052910-03) | Matrix: Water | Sampled: 2018-05-30 11:45, Continued

Total Metals, Continued

Calcium, total	36.1	0.20	mg/L	2018-06-06	
Chromium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00045	0.00010	mg/L	2018-06-06	
Copper, total	0.00062	0.00040	mg/L	2018-06-06	
Iron, total	0.190	0.010	mg/L	2018-06-06	
Lead, total	< 0.00020	0.00020	mg/L	2018-06-06	
Lithium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Magnesium, total	5.54	0.010	mg/L	2018-06-06	
Manganese, total	0.316	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00683	0.00010	mg/L	2018-06-06	
Nickel, total	0.00150	0.00040	mg/L	2018-06-06	
Phosphorus, total	0.096	0.050	mg/L	2018-06-06	
Potassium, total	0.70	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	6.7	1.0	mg/L	2018-06-06	
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	11.0	0.10	mg/L	2018-06-06	
Strontium, total	0.206	0.0010	mg/L	2018-06-06	
Sulfur, total	8.9	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	< 0.000020	0.000020	mg/L	2018-06-06	
Thorium, total	0.00025	0.00010	mg/L	2018-06-06	
Tin, total	< 0.00020	0.00020	mg/L	2018-06-06	
Titanium, total	< 0.0050	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.000755	0.000020	mg/L	2018-06-06	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-06-06	
Zinc, total	< 0.0040	0.0040	mg/L	2018-06-06	
Zirconium, total	0.00013	0.00010	mg/L	2018-06-06	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	63	60-140	%	2018-06-14	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-06-13	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-13	
Acridine	< 0.050	0.050	µg/L	2018-06-13	
Anthracene	< 0.010	0.010	µg/L	2018-06-13	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW3D (8052910-03) | Matrix: Water | Sampled: 2018-05-30 11:45, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Chrysene	< 0.050	0.050	µg/L	2018-06-13	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-13	
Fluorene	< 0.050	0.050	µg/L	2018-06-13	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-13	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Naphthalene	< 0.200	0.200	µg/L	2018-06-13	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-13	
Pyrene	< 0.020	0.020	µg/L	2018-06-13	
Quinoline	< 0.050	0.050	µg/L	2018-06-13	
Surrogate: Acridine-d9	74	50-140	%	2018-06-13	
Surrogate: Naphthalene-d8	94	50-140	%	2018-06-13	
Surrogate: Perylene-d12	73	50-140	%	2018-06-13	

MW2 (8052910-04) | Matrix: Water | Sampled: 2018-05-30 12:45

Anions

Chloride	7.40	0.10	mg/L	2018-06-02	
Fluoride	0.27	0.10	mg/L	2018-06-02	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	17.7	1.0	mg/L	2018-06-02	

General Parameters

Alkalinity, Total (as CaCO3)	126	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO3)	126	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Colour, True	7.2	5.0	CU	2018-06-01	
Conductivity (EC)	290	2.0	µS/cm	2018-06-05	
pH	7.64	0.10	pH units	2018-06-05	HT2
Solids, Total Suspended	22.2	2.0	mg/L	2018-06-05	
Turbidity	16.6	0.10	NTU	2018-06-01	

Calculated Parameters

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
MW2 (8052910-04) Matrix: Water Sampled: 2018-05-30 12:45, Continued					
Calculated Parameters, Continued					
Hardness, Total (as CaCO ₃)	127	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	0.00198	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0322	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.0200	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Calcium, dissolved	39.8	0.20	mg/L	2018-06-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	0.00037	0.00010	mg/L	2018-06-07	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-06-07	
Iron, dissolved	0.249	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	6.77	0.010	mg/L	2018-06-07	
Manganese, dissolved	0.521	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00431	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00079	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	0.110	0.050	mg/L	2018-06-07	
Potassium, dissolved	0.77	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	7.0	1.0	mg/L	2018-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	8.59	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.172	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	7.1	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.000853	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	

Total Metals

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW2 (8052910-04) | Matrix: Water | Sampled: 2018-05-30 12:45, Continued

Total Metals, Continued

Aluminum, total	0.450	0.0050	mg/L	2018-06-06	
Antimony, total	< 0.00020	0.00020	mg/L	2018-06-06	
Arsenic, total	0.00212	0.00050	mg/L	2018-06-06	
Barium, total	0.0328	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0225	0.0050	mg/L	2018-06-06	
Cadmium, total	0.000031	0.000010	mg/L	2018-06-06	
Calcium, total	43.0	0.20	mg/L	2018-06-06	
Chromium, total	0.00080	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00068	0.00010	mg/L	2018-06-06	
Copper, total	0.00074	0.00040	mg/L	2018-06-06	
Iron, total	0.914	0.010	mg/L	2018-06-06	
Lead, total	0.00032	0.00020	mg/L	2018-06-06	
Lithium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Magnesium, total	7.55	0.010	mg/L	2018-06-06	
Manganese, total	0.504	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00435	0.00010	mg/L	2018-06-06	
Nickel, total	0.00133	0.00040	mg/L	2018-06-06	
Phosphorus, total	0.180	0.050	mg/L	2018-06-06	
Potassium, total	0.79	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	7.7	1.0	mg/L	2018-06-06	
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	9.34	0.10	mg/L	2018-06-06	
Strontium, total	0.178	0.0010	mg/L	2018-06-06	
Sulfur, total	7.5	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	< 0.000020	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	< 0.00020	0.00020	mg/L	2018-06-06	
Titanium, total	0.0292	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.000871	0.000020	mg/L	2018-06-06	
Vanadium, total	0.0021	0.0010	mg/L	2018-06-06	
Zinc, total	< 0.0040	0.0040	mg/L	2018-06-06	
Zirconium, total	0.00013	0.00010	mg/L	2018-06-06	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

MW2 (8052910-04) | Matrix: Water | Sampled: 2018-05-30 12:45, Continued

BCMOE Aggregate Hydrocarbons, Continued

HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	77	60-140	%	2018-06-14	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-06-13	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-13	
Acridine	< 0.050	0.050	µg/L	2018-06-13	
Anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Chrysene	< 0.050	0.050	µg/L	2018-06-13	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-13	
Fluorene	< 0.050	0.050	µg/L	2018-06-13	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-13	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Naphthalene	< 0.200	0.200	µg/L	2018-06-13	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-13	
Pyrene	< 0.020	0.020	µg/L	2018-06-13	
Quinoline	< 0.050	0.050	µg/L	2018-06-13	
Surrogate: Acridine-d9	73	50-140	%	2018-06-13	
Surrogate: Naphthalene-d8	92	50-140	%	2018-06-13	
Surrogate: Perylene-d12	75	50-140	%	2018-06-13	

SB1 (8052910-05) | Matrix: Water | Sampled: 2018-05-30 10:30

Anions

Chloride	25.7	0.10	mg/L	2018-06-02	
Fluoride	0.23	0.10	mg/L	2018-06-02	
Nitrate (as N)	0.232	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	102	1.0	mg/L	2018-06-04	

General Parameters

Alkalinity, Total (as CaCO3)	202	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO3)	202	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

SB1 (8052910-05) | Matrix: Water | Sampled: 2018-05-30 10:30, Continued

General Parameters, Continued

Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Colour, True	< 5.0	5.0	CU	2018-06-01	
Conductivity (EC)	637	2.0	µS/cm	2018-06-05	
pH	7.37	0.10	pH units	2018-06-04	HT2
Solids, Total Suspended	89.0	2.0	mg/L	2018-06-05	
Turbidity	95.2	0.10	NTU	2018-06-01	

Calculated Parameters

Hardness, Total (as CaCO ₃)	294	0.500	mg/L	N/A	
---	-----	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	0.0054	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0154	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.0079	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	0.000015	0.000010	mg/L	2018-06-07	
Calcium, dissolved	104	0.20	mg/L	2018-06-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	0.00013	0.00010	mg/L	2018-06-07	
Copper, dissolved	0.00083	0.00040	mg/L	2018-06-07	
Iron, dissolved	< 0.010	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	8.29	0.010	mg/L	2018-06-07	
Manganese, dissolved	0.00093	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00065	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00145	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-06-07	
Potassium, dissolved	0.80	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	4.8	1.0	mg/L	2018-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	8.63	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.256	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	35.1	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8052910-05) Matrix: Water Sampled: 2018-05-30 10:30, Continued					
<i>Dissolved Metals, Continued</i>					
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.00196	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
<i>Total Metals</i>					
Aluminum, total	5.00	0.0050	mg/L	2018-06-06	
Antimony, total	0.00025	0.00020	mg/L	2018-06-06	
Arsenic, total	0.00072	0.00050	mg/L	2018-06-06	
Barium, total	0.0393	0.0050	mg/L	2018-06-06	
Beryllium, total	0.00011	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0101	0.0050	mg/L	2018-06-06	
Cadmium, total	0.000032	0.000010	mg/L	2018-06-06	
Calcium, total	120	0.20	mg/L	2018-06-06	
Chromium, total	0.00628	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00544	0.00010	mg/L	2018-06-06	
Copper, total	0.0156	0.00040	mg/L	2018-06-06	
Iron, total	5.70	0.010	mg/L	2018-06-06	
Lead, total	0.00654	0.00020	mg/L	2018-06-06	
Lithium, total	0.00155	0.00010	mg/L	2018-06-06	
Magnesium, total	10.5	0.010	mg/L	2018-06-06	
Manganese, total	0.157	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00070	0.00010	mg/L	2018-06-06	
Nickel, total	0.00679	0.00040	mg/L	2018-06-06	
Phosphorus, total	0.121	0.050	mg/L	2018-06-06	
Potassium, total	1.17	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	12.0	1.0	mg/L	2018-06-06	
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	9.85	0.10	mg/L	2018-06-06	
Strontium, total	0.284	0.0010	mg/L	2018-06-06	
Sulfur, total	36.2	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	< 0.000020	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	0.00028	0.00020	mg/L	2018-06-06	
Titanium, total	0.289	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.00231	0.000020	mg/L	2018-06-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8052910-05) Matrix: Water Sampled: 2018-05-30 10:30, Continued					
<i>Total Metals, Continued</i>					
Vanadium, total	0.0144	0.0010	mg/L	2018-06-06	
Zinc, total	0.0166	0.0040	mg/L	2018-06-06	
Zirconium, total	0.00026	0.00010	mg/L	2018-06-06	
<i>BCMOE Aggregate Hydrocarbons</i>					
EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	67	60-140	%	2018-06-14	
<i>Polycyclic Aromatic Hydrocarbons (PAH)</i>					
Acenaphthene	< 0.050	0.050	µg/L	2018-06-13	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-13	
Acridine	< 0.050	0.050	µg/L	2018-06-13	
Anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Chrysene	< 0.050	0.050	µg/L	2018-06-13	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-13	
Fluorene	< 0.050	0.050	µg/L	2018-06-13	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-13	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Naphthalene	< 0.200	0.200	µg/L	2018-06-13	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-13	
Pyrene	< 0.020	0.020	µg/L	2018-06-13	
Quinoline	< 0.050	0.050	µg/L	2018-06-13	
Surrogate: Acridine-d9	71	50-140	%	2018-06-13	
Surrogate: Naphthalene-d8	92	50-140	%	2018-06-13	
Surrogate: Perylene-d12	76	50-140	%	2018-06-13	

SB2 (8052910-06) | Matrix: Water | Sampled: 2018-05-30 10:15

Anions

Chloride	38.1	0.10	mg/L	2018-06-02	
Fluoride	0.24	0.10	mg/L	2018-06-02	
Nitrate (as N)	0.113	0.010	mg/L	2018-06-02	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8052910-06) Matrix: Water Sampled: 2018-05-30 10:15, Continued					
Anions, Continued					
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	61.3	1.0	mg/L	2018-06-02	
General Parameters					
Alkalinity, Total (as CaCO ₃)	250	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO ₃)	250	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Colour, True	< 5.0	5.0	CU	2018-06-01	
Conductivity (EC)	688	2.0	µS/cm	2018-06-05	
pH	7.00	0.10	pH units	2018-06-04	HT2
Solids, Total Suspended	45.6	2.0	mg/L	2018-06-05	
Turbidity	47.5	0.10	NTU	2018-06-01	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	288	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0109	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.0172	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Calcium, dissolved	95.9	0.20	mg/L	2018-06-07	
Chromium, dissolved	0.00051	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Copper, dissolved	0.00080	0.00040	mg/L	2018-06-07	
Iron, dissolved	< 0.010	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	11.7	0.010	mg/L	2018-06-07	
Manganese, dissolved	0.00172	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00096	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00044	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-06-07	
Potassium, dissolved	1.58	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	6.2	1.0	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8052910-06) Matrix: Water Sampled: 2018-05-30 10:15, Continued					
<i>Dissolved Metals, Continued</i>					
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	22.1	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.299	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	22.1	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.00183	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
<i>Total Metals</i>					
Aluminum, total	1.94	0.0050	mg/L	2018-06-06	
Antimony, total	< 0.00020	0.00020	mg/L	2018-06-06	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-06-06	
Barium, total	0.0205	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0210	0.0050	mg/L	2018-06-06	
Cadmium, total	< 0.000010	0.000010	mg/L	2018-06-06	
Calcium, total	113	0.20	mg/L	2018-06-06	
Chromium, total	0.00247	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00159	0.00010	mg/L	2018-06-06	
Copper, total	0.00630	0.00040	mg/L	2018-06-06	
Iron, total	2.25	0.010	mg/L	2018-06-06	
Lead, total	0.00054	0.00020	mg/L	2018-06-06	
Lithium, total	0.00069	0.00010	mg/L	2018-06-06	
Magnesium, total	14.5	0.010	mg/L	2018-06-06	
Manganese, total	0.0723	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00100	0.00010	mg/L	2018-06-06	
Nickel, total	0.00233	0.00040	mg/L	2018-06-06	
Phosphorus, total	0.065	0.050	mg/L	2018-06-06	
Potassium, total	1.99	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	10.0	1.0	mg/L	2018-06-06	
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	27.0	0.10	mg/L	2018-06-06	
Strontium, total	0.346	0.0010	mg/L	2018-06-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8052910-06) Matrix: Water Sampled: 2018-05-30 10:15, Continued					
Total Metals, Continued					
Sulfur, total	25.3	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	< 0.000020	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	0.00096	0.00020	mg/L	2018-06-06	
Titanium, total	0.136	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.00202	0.000020	mg/L	2018-06-06	
Vanadium, total	0.0056	0.0010	mg/L	2018-06-06	
Zinc, total	0.0066	0.0040	mg/L	2018-06-06	
Zirconium, total	0.00012	0.00010	mg/L	2018-06-06	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	65	60-140	%	2018-06-14	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-06-13	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-13	
Acridine	< 0.050	0.050	µg/L	2018-06-13	
Anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-13	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-13	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-13	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Chrysene	< 0.050	0.050	µg/L	2018-06-13	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-13	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-13	
Fluorene	< 0.050	0.050	µg/L	2018-06-13	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-13	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-13	
Naphthalene	< 0.200	0.200	µg/L	2018-06-13	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-13	
Pyrene	< 0.020	0.020	µg/L	2018-06-13	
Quinoline	< 0.050	0.050	µg/L	2018-06-13	
Surrogate: Acridine-d9	71	50-140	%	2018-06-13	
Surrogate: Naphthalene-d8	90	50-140	%	2018-06-13	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

SB2 (8052910-06) | Matrix: Water | Sampled: 2018-05-30 10:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Surrogate: Perylene-d12	73	50-140	%	2018-06-13	
-------------------------	----	--------	---	------------	--

LE-1 (8052910-07) | Matrix: Water | Sampled: 2018-05-30 13:30

Anions

Chloride	3240	0.10	mg/L	2018-06-02	
Fluoride	< 1.00	0.10	mg/L	2018-06-02	RA1
Nitrate (as N)	1.56	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.100	0.010	mg/L	2018-06-02	RA1
Sulfate	1740	1.0	mg/L	2018-06-02	

General Parameters

Alkalinity, Total (as CaCO3)	62.0	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO3)	62.0	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Colour, True	8.0	5.0	CU	2018-06-01	
Conductivity (EC)	12400	2.0	µS/cm	2018-06-05	
pH	7.14	0.10	pH units	2018-06-05	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-06-05	
Turbidity	0.45	0.10	NTU	2018-06-01	

Calculated Parameters

Hardness, Total (as CaCO3)	3220	0.500	mg/L	N/A	
----------------------------	------	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	0.0425	0.0050	mg/L	2018-06-07	
Antimony, dissolved	0.00022	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0635	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.256	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	0.000936	0.000010	mg/L	2018-06-07	
Calcium, dissolved	887	0.20	mg/L	2018-06-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	0.00973	0.00010	mg/L	2018-06-07	
Copper, dissolved	0.00523	0.00040	mg/L	2018-06-07	
Iron, dissolved	< 0.010	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	0.00036	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	244	0.010	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

LE-1 (8052910-07) | Matrix: Water | Sampled: 2018-05-30 13:30, Continued

Dissolved Metals, Continued

Manganese, dissolved	35.3	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00185	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.0137	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-06-07	
Potassium, dissolved	25.4	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	8.2	1.0	mg/L	2018-06-07	
Silver, dissolved	0.000071	0.000050	mg/L	2018-06-07	
Sodium, dissolved	1640	0.10	mg/L	2018-06-07	
Strontium, dissolved	4.69	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	727	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	0.000086	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.000302	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	0.0645	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	

Total Metals

Aluminum, total	0.229	0.0050	mg/L	2018-06-06	
Antimony, total	0.00024	0.00020	mg/L	2018-06-06	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-06-06	
Barium, total	0.0660	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.281	0.0050	mg/L	2018-06-06	
Cadmium, total	0.000949	0.000010	mg/L	2018-06-06	
Calcium, total	991	0.20	mg/L	2018-06-06	
Chromium, total	0.00057	0.00050	mg/L	2018-06-06	
Cobalt, total	0.0100	0.00010	mg/L	2018-06-06	
Copper, total	0.00525	0.00040	mg/L	2018-06-06	
Iron, total	0.028	0.010	mg/L	2018-06-06	
Lead, total	< 0.00020	0.00020	mg/L	2018-06-06	
Lithium, total	0.00039	0.00010	mg/L	2018-06-06	
Magnesium, total	258	0.010	mg/L	2018-06-07	
Manganese, total	35.9	0.00020	mg/L	2018-06-07	
Mercury, total	0.000015	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00178	0.00010	mg/L	2018-06-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
LE-1 (8052910-07) Matrix: Water Sampled: 2018-05-30 13:30, Continued					
Total Metals, Continued					
Nickel, total	0.0139	0.00040	mg/L	2018-06-06	
Phosphorus, total	< 0.050	0.050	mg/L	2018-06-06	
Potassium, total	27.0	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	8.6	1.0	mg/L	2018-06-06	
Silver, total	0.000062	0.000050	mg/L	2018-06-06	
Sodium, total	1690	0.10	mg/L	2018-06-07	
Strontium, total	5.15	0.0010	mg/L	2018-06-06	
Sulfur, total	779	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	0.000088	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	< 0.00020	0.00020	mg/L	2018-06-06	
Titanium, total	< 0.0050	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.000317	0.000020	mg/L	2018-06-06	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-06-06	
Zinc, total	0.0611	0.0040	mg/L	2018-06-06	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-06-06	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	61	60-140	%	2018-06-14	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-06-14	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-14	
Acridine	< 0.050	0.050	µg/L	2018-06-14	
Anthracene	< 0.010	0.010	µg/L	2018-06-14	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-14	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-14	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-14	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-14	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-14	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-14	
Chrysene	< 0.050	0.050	µg/L	2018-06-14	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-14	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-14	
Fluorene	< 0.050	0.050	µg/L	2018-06-14	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-14	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

LE-1 (8052910-07) | Matrix: Water | Sampled: 2018-05-30 13:30, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-14	
2-Methylnaphthalene	0.138	0.100	µg/L	2018-06-14	
Naphthalene	< 0.200	0.200	µg/L	2018-06-14	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-14	
Pyrene	< 0.020	0.020	µg/L	2018-06-14	
Quinoline	< 0.050	0.050	µg/L	2018-06-14	
Surrogate: Acridine-d9	72	50-140	%	2018-06-14	
Surrogate: Naphthalene-d8	85	50-140	%	2018-06-14	
Surrogate: Perylene-d12	73	50-140	%	2018-06-14	

SW-1 (8052910-08) | Matrix: Water | Sampled: 2018-05-30 12:15

Anions

Chloride	17.5	0.10	mg/L	2018-06-02	
Fluoride	< 0.10	0.10	mg/L	2018-06-02	
Nitrate (as N)	0.292	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	86.2	1.0	mg/L	2018-06-04	

General Parameters

Alkalinity, Total (as CaCO ₃)	154	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO ₃)	154	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-05	
Chromium, Hexavalent	0.0018	0.0010	mg/L	2018-05-31	
Colour, True	< 5.0	5.0	CU	2018-06-01	
Conductivity (EC)	515	2.0	µS/cm	2018-06-05	
pH	7.44	0.10	pH units	2018-06-05	HT2
Solids, Total Suspended	2.0	2.0	mg/L	2018-06-05	
Turbidity	1.05	0.10	NTU	2018-06-01	

Calculated Parameters

Chromium, Trivalent	< 0.00100	0.00100	mg/L	N/A	
Hardness, Total (as CaCO ₃)	237	0.500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0149	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-1 (8052910-08) Matrix: Water Sampled: 2018-05-30 12:15, Continued					
<i>Dissolved Metals, Continued</i>					
Boron, dissolved	0.0164	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Calcium, dissolved	78.6	0.20	mg/L	2018-06-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Copper, dissolved	0.00115	0.00040	mg/L	2018-06-07	
Iron, dissolved	< 0.010	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	9.91	0.010	mg/L	2018-06-07	
Manganese, dissolved	0.0190	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00094	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00065	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-06-07	
Potassium, dissolved	0.94	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	6.1	1.0	mg/L	2018-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	9.21	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.210	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	29.7	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.00130	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
<i>Total Metals</i>					
Aluminum, total	0.0355	0.0050	mg/L	2018-06-06	
Antimony, total	< 0.00020	0.00020	mg/L	2018-06-06	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-06-06	
Barium, total	0.0152	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0180	0.0050	mg/L	2018-06-06	
Cadmium, total	0.000011	0.000010	mg/L	2018-06-06	
Calcium, total	89.3	0.20	mg/L	2018-06-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

SW-1 (8052910-08) | Matrix: Water | Sampled: 2018-05-30 12:15, Continued

Total Metals, Continued

Chromium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00014	0.00010	mg/L	2018-06-06	
Copper, total	0.00149	0.00040	mg/L	2018-06-06	
Iron, total	0.033	0.010	mg/L	2018-06-06	
Lead, total	< 0.00020	0.00020	mg/L	2018-06-06	
Lithium, total	0.00011	0.00010	mg/L	2018-06-06	
Magnesium, total	11.1	0.010	mg/L	2018-06-06	
Manganese, total	0.0383	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00095	0.00010	mg/L	2018-06-06	
Nickel, total	0.00082	0.00040	mg/L	2018-06-06	
Phosphorus, total	< 0.050	0.050	mg/L	2018-06-06	
Potassium, total	0.95	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	6.2	1.0	mg/L	2018-06-06	
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	10.4	0.10	mg/L	2018-06-06	
Strontium, total	0.224	0.0010	mg/L	2018-06-06	
Sulfur, total	32.4	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	< 0.000020	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	< 0.00020	0.00020	mg/L	2018-06-06	
Titanium, total	< 0.0050	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.00135	0.000020	mg/L	2018-06-06	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-06-06	
Zinc, total	< 0.0040	0.0040	mg/L	2018-06-06	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-06-06	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	64	60-140	%	2018-06-14	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-06-14	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-14	
Acridine	< 0.050	0.050	µg/L	2018-06-14	
Anthracene	< 0.010	0.010	µg/L	2018-06-14	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-14	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-1 (8052910-08) Matrix: Water Sampled: 2018-05-30 12:15, Continued					
<i>Polycyclic Aromatic Hydrocarbons (PAH), Continued</i>					
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-14	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-14	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-14	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-14	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-14	
Chrysene	< 0.050	0.050	µg/L	2018-06-14	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-14	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-14	
Fluorene	< 0.050	0.050	µg/L	2018-06-14	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-14	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-14	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-14	
Naphthalene	< 0.200	0.200	µg/L	2018-06-14	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-14	
Pyrene	< 0.020	0.020	µg/L	2018-06-14	
Quinoline	< 0.050	0.050	µg/L	2018-06-14	
Surrogate: Acridine-d9	69	50-140	%	2018-06-14	
Surrogate: Naphthalene-d8	91	50-140	%	2018-06-14	
Surrogate: Perylene-d12	72	50-140	%	2018-06-14	

SW-1 DUP (8052910-09) | Matrix: Water | Sampled: 2018-05-30 12:25

Anions

Chloride	17.2	0.10	mg/L	2018-06-02	
Fluoride	< 0.10	0.10	mg/L	2018-06-02	
Nitrate (as N)	0.333	0.010	mg/L	2018-06-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-02	
Sulfate	85.0	1.0	mg/L	2018-06-04	

General Parameters

Alkalinity, Total (as CaCO3)	156	1.0	mg/L	2018-06-05	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Bicarbonate (as CaCO3)	156	1.0	mg/L	2018-06-05	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-05	
Chromium, Hexavalent	0.0018	0.0010	mg/L	2018-05-31	
Colour, True	< 5.0	5.0	CU	2018-06-01	
Conductivity (EC)	515	2.0	µS/cm	2018-06-05	
pH	7.43	0.10	pH units	2018-06-05	HT2
Solids, Total Suspended	< 2.5	2.0	mg/L	2018-06-05	
Turbidity	0.38	0.10	NTU	2018-06-01	

Calculated Parameters

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-1 DUP (8052910-09) Matrix: Water Sampled: 2018-05-30 12:25, Continued					
<i>Calculated Parameters, Continued</i>					
Chromium, Trivalent	< 0.00100	0.00100	mg/L	N/A	
Hardness, Total (as CaCO ₃)	236	0.500	mg/L	N/A	
<i>Dissolved Metals</i>					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Barium, dissolved	0.0147	0.0050	mg/L	2018-06-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Boron, dissolved	0.0142	0.0050	mg/L	2018-06-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Calcium, dissolved	78.0	0.20	mg/L	2018-06-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Copper, dissolved	0.00110	0.00040	mg/L	2018-06-07	
Iron, dissolved	< 0.010	0.010	mg/L	2018-06-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Magnesium, dissolved	9.90	0.010	mg/L	2018-06-07	
Manganese, dissolved	0.0150	0.00020	mg/L	2018-06-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, dissolved	0.00094	0.00010	mg/L	2018-06-07	
Nickel, dissolved	0.00068	0.00040	mg/L	2018-06-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-06-07	
Potassium, dissolved	0.92	0.10	mg/L	2018-06-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Silicon, dissolved	6.0	1.0	mg/L	2018-06-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-06-07	
Sodium, dissolved	8.87	0.10	mg/L	2018-06-07	
Strontium, dissolved	0.210	0.0010	mg/L	2018-06-07	
Sulfur, dissolved	29.9	3.0	mg/L	2018-06-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-06-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-06-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-06-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-06-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Uranium, dissolved	0.00131	0.000020	mg/L	2018-06-07	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-06-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-06-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-06-07	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-1 DUP (8052910-09) Matrix: Water Sampled: 2018-05-30 12:25, Continued					
Total Metals					
Aluminum, total	0.0246	0.0050	mg/L	2018-06-06	
Antimony, total	< 0.00020	0.00020	mg/L	2018-06-06	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-06-06	
Barium, total	0.0149	0.0050	mg/L	2018-06-06	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-06-06	
Boron, total	0.0159	0.0050	mg/L	2018-06-06	
Cadmium, total	< 0.000010	0.000010	mg/L	2018-06-06	
Calcium, total	86.0	0.20	mg/L	2018-06-06	
Chromium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Cobalt, total	0.00011	0.00010	mg/L	2018-06-06	
Copper, total	0.00217	0.00040	mg/L	2018-06-06	
Iron, total	0.024	0.010	mg/L	2018-06-06	
Lead, total	< 0.00020	0.00020	mg/L	2018-06-06	
Lithium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Magnesium, total	10.4	0.010	mg/L	2018-06-06	
Manganese, total	0.0316	0.00020	mg/L	2018-06-06	
Mercury, total	< 0.000010	0.000010	mg/L	2018-06-07	
Molybdenum, total	0.00088	0.00010	mg/L	2018-06-06	
Nickel, total	0.00073	0.00040	mg/L	2018-06-06	
Phosphorus, total	< 0.050	0.050	mg/L	2018-06-06	
Potassium, total	0.90	0.10	mg/L	2018-06-06	
Selenium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Silicon, total	6.0	1.0	mg/L	2018-06-06	
Silver, total	< 0.000050	0.000050	mg/L	2018-06-06	
Sodium, total	9.66	0.10	mg/L	2018-06-06	
Strontium, total	0.216	0.0010	mg/L	2018-06-06	
Sulfur, total	30.5	3.0	mg/L	2018-06-06	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-06-06	
Thallium, total	< 0.000020	0.000020	mg/L	2018-06-06	
Thorium, total	< 0.00010	0.00010	mg/L	2018-06-06	
Tin, total	< 0.00020	0.00020	mg/L	2018-06-06	
Titanium, total	< 0.0050	0.0050	mg/L	2018-06-06	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-06-06	
Uranium, total	0.00134	0.000020	mg/L	2018-06-06	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-06-06	
Zinc, total	< 0.0040	0.0040	mg/L	2018-06-06	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-06-06	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-06-14	
EPHw19-32	< 250	250	µg/L	2018-06-14	
LEPHw	< 250	250	µg/L	N/A	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL	Units	Analyzed	Qualifier
SW-1 DUP (8052910-09) Matrix: Water Sampled: 2018-05-30 12:25, Continued					
BCMOE Aggregate Hydrocarbons, Continued					
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	64	60-140	%	2018-06-14	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-06-14	
Acenaphthylene	< 0.200	0.200	µg/L	2018-06-14	
Acridine	< 0.050	0.050	µg/L	2018-06-14	
Anthracene	< 0.010	0.010	µg/L	2018-06-14	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-06-14	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-06-14	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-06-14	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-06-14	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-06-14	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-06-14	
Chrysene	< 0.050	0.050	µg/L	2018-06-14	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-06-14	
Fluoranthene	< 0.030	0.030	µg/L	2018-06-14	
Fluorene	< 0.050	0.050	µg/L	2018-06-14	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-06-14	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-14	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-06-14	
Naphthalene	< 0.200	0.200	µg/L	2018-06-14	
Phenanthrene	< 0.100	0.100	µg/L	2018-06-14	
Pyrene	< 0.020	0.020	µg/L	2018-06-14	
Quinoline	< 0.050	0.050	µg/L	2018-06-14	
Surrogate: Acridine-d9	71	50-140	%	2018-06-14	
Surrogate: Naphthalene-d8	92	50-140	%	2018-06-14	
Surrogate: Perylene-d12	75	50-140	%	2018-06-14	

Sample Qualifiers:

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

RA1 The Reporting Limit has been raised due to matrix interference.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analysis Description	Method Ref.	Technique	Location
Alkalinity in Water	SM 2320 B* (2011)	Titration with H ₂ SO ₄	Kelowna
Anions in Water	SM 4110 B (2011)	Ion Chromatography	Kelowna
Chromium, Hexavalent in Water	SM 3500-Cr B (2011)	Spectrophotometry	Richmond
Colour, True in Water	SM 2120 C (2011)	Spectrophotometry (456 nm)	Kelowna
Conductivity in Water	SM 2510 B (2011)	Conductivity Meter	Richmond
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* (2011)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl ₂ Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Mercury, total in Water	EPA 245.7*	BrCl ₂ Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
pH in Water	SM 4500-H+ B (2011)	Electrometry	Richmond
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	Richmond
Solids, Total Suspended in Water	SM 2540 D* (2011)	Gravimetry (Dried at 103-105C)	Richmond
Total Metals in Water	EPA 200.2* / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Turbidity in Water	SM 2130 B (2011)	Nephelometry	Richmond

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

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
CU	Colour Units (referenced against a platinum cobalt standard)
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

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.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

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 B8F0007

Blank (B8F0007-BLK1)			Prepared: 2018-06-02, Analyzed: 2018-06-02						
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 (B8F0007-BS1)			Prepared: 2018-06-02, Analyzed: 2018-06-02						
Chloride	15.9	0.10 mg/L	16.0		99	90-110			
Fluoride	3.96	0.10 mg/L	4.00		99	88-108			
Nitrate (as N)	4.03	0.010 mg/L	4.00		101	93-108			
Nitrite (as N)	2.05	0.010 mg/L	2.00		103	85-114			
Sulfate	16.3	1.0 mg/L	16.0		102	91-109			

Anions, Batch B8F0115

Blank (B8F0115-BLK1)			Prepared: 2018-06-02, Analyzed: 2018-06-02						
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 (B8F0115-BS1)			Prepared: 2018-06-02, Analyzed: 2018-06-02						
Chloride	15.9	0.10 mg/L	16.0		99	90-110			
Fluoride	3.90	0.10 mg/L	4.00		97	88-108			
Nitrate (as N)	4.11	0.010 mg/L	4.00		103	93-108			
Nitrite (as N)	2.00	0.010 mg/L	2.00		100	85-114			
Sulfate	16.3	1.0 mg/L	16.0		102	91-109			

BCMOE Aggregate Hydrocarbons, Batch B8F0947

Blank (B8F0947-BLK1)			Prepared: 2018-06-12, Analyzed: 2018-06-14						
EPHw10-19	< 250	250 µg/L							S09
EPHw19-32	< 250	250 µg/L							S09
Surrogate: 2-Methylnonane (EPH/F2-4)	112	µg/L	444		25	60-140			S09

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B8F0947, Continued									
LCS (B8F0947-BS2)				Prepared: 2018-06-12, Analyzed: 2018-06-14					
EPHw10-19	12000	250 µg/L	15500		77	70-130			S09
EPHw19-32	17300	250 µg/L	22200		78	70-130			S09
Surrogate: 2-Methylnonane (EPH/F2-4)	206	µg/L	444		46	60-140			S09

Dissolved Metals, Batch B8F0415

Blank (B8F0415-BLK1)				Prepared: 2018-06-06, Analyzed: 2018-06-07					
Mercury, dissolved	< 0.000010	0.000010 mg/L							
Blank (B8F0415-BLK2)				Prepared: 2018-06-06, Analyzed: 2018-06-07					
Mercury, dissolved	< 0.000010	0.000010 mg/L							
Reference (B8F0415-SRM1)				Prepared: 2018-06-06, Analyzed: 2018-06-07					
Mercury, dissolved	0.00499	0.000010 mg/L	0.00489		102	80-120			

Dissolved Metals, Batch B8F0432

Blank (B8F0432-BLK1)				Prepared: 2018-06-07, Analyzed: 2018-06-07					
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							
Lithium, dissolved	< 0.00010	0.00010 mg/L							
Magnesium, dissolved	< 0.010	0.010 mg/L							
Manganese, dissolved	< 0.00020	0.00020 mg/L							
Molybdenum, dissolved	< 0.00010	0.00010 mg/L							
Nickel, dissolved	< 0.00040	0.00040 mg/L							
Phosphorus, dissolved	< 0.050	0.050 mg/L							
Potassium, dissolved	< 0.10	0.10 mg/L							
Selenium, dissolved	< 0.00050	0.00050 mg/L							
Silicon, dissolved	< 1.0	1.0 mg/L							
Silver, dissolved	< 0.000050	0.000050 mg/L							
Sodium, dissolved	0.10	0.10 mg/L							
Strontium, dissolved	< 0.0010	0.0010 mg/L							
Sulfur, dissolved	< 3.0	3.0 mg/L							
Tellurium, dissolved	< 0.00050	0.00050 mg/L							
Thallium, dissolved	< 0.000020	0.000020 mg/L							
Thorium, dissolved	< 0.00010	0.00010 mg/L							
Tin, dissolved	< 0.00020	0.00020 mg/L							
Titanium, dissolved	< 0.0050	0.0050 mg/L							
Tungsten, dissolved	< 0.0010	0.0010 mg/L							
Uranium, dissolved	< 0.000020	0.000020 mg/L							
Vanadium, dissolved	< 0.0010	0.0010 mg/L							
Zinc, dissolved	< 0.0040	0.0040 mg/L							
Zirconium, dissolved	< 0.00010	0.00010 mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B8F0432, Continued									
LCS (B8F0432-BS1)				Prepared: 2018-06-07, Analyzed: 2018-06-07					
Aluminum, dissolved	0.0218	0.0050 mg/L	0.0200		109	80-120			
Antimony, dissolved	0.0213	0.00020 mg/L	0.0200		107	80-120			
Arsenic, dissolved	0.0203	0.00050 mg/L	0.0200		101	80-120			
Barium, dissolved	0.0203	0.0050 mg/L	0.0200		101	80-120			
Beryllium, dissolved	0.0179	0.00010 mg/L	0.0200		90	80-120			
Bismuth, dissolved	0.0213	0.00010 mg/L	0.0200		106	80-120			
Boron, dissolved	0.0174	0.0050 mg/L	0.0200		87	80-120			
Cadmium, dissolved	0.0206	0.000010 mg/L	0.0200		103	80-120			
Calcium, dissolved	1.95	0.20 mg/L	2.00		97	80-120			
Chromium, dissolved	0.0204	0.00050 mg/L	0.0200		102	80-120			
Cobalt, dissolved	0.0202	0.00010 mg/L	0.0200		101	80-120			
Copper, dissolved	0.0211	0.00040 mg/L	0.0200		105	80-120			
Iron, dissolved	2.06	0.010 mg/L	2.00		103	80-120			
Lead, dissolved	0.0207	0.00020 mg/L	0.0200		103	80-120			
Lithium, dissolved	0.0173	0.00010 mg/L	0.0200		87	80-120			
Magnesium, dissolved	1.93	0.010 mg/L	2.00		97	80-120			
Manganese, dissolved	0.0211	0.00020 mg/L	0.0200		106	80-120			
Molybdenum, dissolved	0.0197	0.00010 mg/L	0.0200		99	80-120			
Nickel, dissolved	0.0202	0.00040 mg/L	0.0200		101	80-120			
Phosphorus, dissolved	2.01	0.050 mg/L	2.00		100	80-120			
Potassium, dissolved	2.09	0.10 mg/L	2.00		105	80-120			
Selenium, dissolved	0.0177	0.00050 mg/L	0.0200		88	80-120			
Silicon, dissolved	2.1	1.0 mg/L	2.00		106	80-120			
Silver, dissolved	0.0196	0.000050 mg/L	0.0200		98	80-120			
Sodium, dissolved	1.95	0.10 mg/L	2.00		98	80-120			
Strontium, dissolved	0.0198	0.0010 mg/L	0.0200		99	80-120			
Sulfur, dissolved	5.5	3.0 mg/L	5.00		109	80-120			
Tellurium, dissolved	0.0217	0.00050 mg/L	0.0200		109	80-120			
Thallium, dissolved	0.0203	0.000020 mg/L	0.0200		101	80-120			
Thorium, dissolved	0.0198	0.00010 mg/L	0.0200		99	80-120			
Tin, dissolved	0.0218	0.00020 mg/L	0.0200		109	80-120			
Titanium, dissolved	0.0233	0.0050 mg/L	0.0200		116	80-120			
Tungsten, dissolved	0.0167	0.0010 mg/L	0.0200		83	80-120			
Uranium, dissolved	0.0208	0.000020 mg/L	0.0200		104	80-120			
Vanadium, dissolved	0.0200	0.0010 mg/L	0.0200		100	80-120			
Zinc, dissolved	0.0240	0.0040 mg/L	0.0200		120	80-120			
Zirconium, dissolved	0.0220	0.00010 mg/L	0.0200		110	80-120			

Duplicate (B8F0432-DUP1)		Source: 8052910-01		Prepared: 2018-06-07, Analyzed: 2018-06-07					
Aluminum, dissolved	< 0.0050	0.0050 mg/L	< 0.0050					11	
Antimony, dissolved	< 0.00020	0.00020 mg/L	< 0.00020					20	
Arsenic, dissolved	0.00414	0.00050 mg/L	0.00425			3		8	
Barium, dissolved	0.0864	0.0050 mg/L	0.0861			< 1		7	
Beryllium, dissolved	< 0.00010	0.00010 mg/L	< 0.00010					14	
Bismuth, dissolved	< 0.00010	0.00010 mg/L	< 0.00010					20	
Boron, dissolved	0.0612	0.0050 mg/L	0.0635			4		13	
Cadmium, dissolved	< 0.000010	0.000010 mg/L	< 0.000010					20	
Calcium, dissolved	173	0.20 mg/L	171			1		8	
Chromium, dissolved	< 0.00050	0.00050 mg/L	< 0.00050					14	
Cobalt, dissolved	0.00219	0.00010 mg/L	0.00225			2		10	
Copper, dissolved	< 0.00040	0.00040 mg/L	< 0.00040					20	
Iron, dissolved	2.31	0.010 mg/L	2.32			< 1		14	
Lead, dissolved	< 0.00020	0.00020 mg/L	< 0.00020					20	
Lithium, dissolved	0.00967	0.00010 mg/L	0.00985			2		14	
Magnesium, dissolved	33.5	0.010 mg/L	33.4			< 1		6	
Manganese, dissolved	2.20	0.00020 mg/L	2.21			< 1		9	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B8F0432, Continued									
Duplicate (B8F0432-DUP1), Continued		Source: 8052910-01		Prepared: 2018-06-07, Analyzed: 2018-06-07					
Molybdenum, dissolved	0.00076	0.00010 mg/L		0.00082			7	19	
Nickel, dissolved	0.00352	0.00040 mg/L		0.00351			< 1	20	
Phosphorus, dissolved	< 0.050	0.050 mg/L		< 0.050				14	
Potassium, dissolved	3.87	0.10 mg/L		3.86			< 1	8	
Selenium, dissolved	< 0.00050	0.00050 mg/L		< 0.00050				20	
Silicon, dissolved	12.2	1.0 mg/L		12.1			< 1	12	
Silver, dissolved	< 0.000050	0.000050 mg/L		< 0.000050				20	
Sodium, dissolved	58.9	0.10 mg/L		58.6			< 1	6	
Strontium, dissolved	0.622	0.0010 mg/L		0.621			< 1	6	
Sulfur, dissolved	25.3	3.0 mg/L		24.5			3	20	
Tellurium, dissolved	< 0.00050	0.00050 mg/L		< 0.00050				20	
Thallium, dissolved	< 0.000020	0.000020 mg/L		< 0.000020				13	
Thorium, dissolved	< 0.00010	0.00010 mg/L		< 0.00010				20	
Tin, dissolved	< 0.00020	0.00020 mg/L		< 0.00020				20	
Titanium, dissolved	< 0.0050	0.0050 mg/L		< 0.0050				20	
Tungsten, dissolved	< 0.0010	0.0010 mg/L		< 0.0010				20	
Uranium, dissolved	0.00738	0.000020 mg/L		0.00730			1	14	
Vanadium, dissolved	< 0.0010	0.0010 mg/L		< 0.0010				20	
Zinc, dissolved	< 0.0040	0.0040 mg/L		< 0.0040				11	
Zirconium, dissolved	0.00021	0.00010 mg/L		0.00021				20	
Reference (B8F0432-SRM1)		Prepared: 2018-06-07, Analyzed: 2018-06-07							
Aluminum, dissolved	0.233	0.0050 mg/L	0.233		100	79-114			
Antimony, dissolved	0.0481	0.00020 mg/L	0.0430		112	89-123			
Arsenic, dissolved	0.465	0.00050 mg/L	0.438		106	87-113			
Barium, dissolved	3.60	0.0050 mg/L	3.35		107	85-114			
Beryllium, dissolved	0.200	0.00010 mg/L	0.213		94	79-122			
Boron, dissolved	1.51	0.0050 mg/L	1.74		87	79-117			
Cadmium, dissolved	0.237	0.000010 mg/L	0.224		106	89-112			
Calcium, dissolved	7.89	0.20 mg/L	7.69		103	85-120			
Chromium, dissolved	0.470	0.00050 mg/L	0.437		107	87-113			
Cobalt, dissolved	0.139	0.00010 mg/L	0.128		109	90-117			
Copper, dissolved	0.906	0.00040 mg/L	0.844		107	90-115			
Iron, dissolved	1.39	0.010 mg/L	1.29		108	86-112			
Lead, dissolved	0.119	0.00020 mg/L	0.112		106	90-113			
Lithium, dissolved	0.0966	0.00010 mg/L	0.104		93	77-127			
Magnesium, dissolved	6.67	0.010 mg/L	6.92		96	84-116			
Manganese, dissolved	0.378	0.00020 mg/L	0.345		110	85-113			
Molybdenum, dissolved	0.449	0.00010 mg/L	0.426		105	87-112			
Nickel, dissolved	0.889	0.00040 mg/L	0.840		106	90-114			
Phosphorus, dissolved	0.497	0.050 mg/L	0.495		101	74-119			
Potassium, dissolved	3.35	0.10 mg/L	3.19		105	78-119			
Selenium, dissolved	0.0298	0.00050 mg/L	0.0331		90	89-123			
Sodium, dissolved	17.5	0.10 mg/L	19.1		91	81-117			
Strontium, dissolved	0.957	0.0010 mg/L	0.916		104	82-111			
Thallium, dissolved	0.0408	0.000020 mg/L	0.0393		104	90-113			
Uranium, dissolved	0.271	0.000020 mg/L	0.266		102	87-113			
Vanadium, dissolved	0.924	0.0010 mg/L	0.869		106	85-110			
Zinc, dissolved	0.961	0.0040 mg/L	0.881		109	88-114			
General Parameters, Batch B8E2510									
Blank (B8E2510-BLK1)		Prepared: 2018-05-31, Analyzed: 2018-05-31							
Chromium, Hexavalent	< 0.0010	0.0010 mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B8E2510, Continued									
LCS (B8E2510-BS1)				Prepared: 2018-05-31, Analyzed: 2018-05-31					
Chromium, Hexavalent	0.0968	0.0010 mg/L	0.100		97	90-111			
General Parameters, Batch B8F0034									
Blank (B8F0034-BLK1)				Prepared: 2018-06-01, Analyzed: 2018-06-01					
Turbidity	< 0.10	0.10 NTU							
Duplicate (B8F0034-DUP1)				Source: 8052910-07		Prepared: 2018-06-01, Analyzed: 2018-06-01			
Turbidity	0.49	0.10 NTU		0.45			18		
General Parameters, Batch B8F0058									
Blank (B8F0058-BLK1)				Prepared: 2018-06-01, Analyzed: 2018-06-01					
Colour, True	< 5.0	5.0 CU							
LCS (B8F0058-BS1)				Prepared: 2018-06-01, Analyzed: 2018-06-01					
Colour, True	10	5.0 CU	10.0		105	85-115			
General Parameters, Batch B8F0194									
Reference (B8F0194-SRM1)				Prepared: 2018-06-04, Analyzed: 2018-06-04					
pH	6.18	0.10 pH units	6.20		100	97.5-102.5			
General Parameters, Batch B8F0265									
Blank (B8F0265-BLK1)				Prepared: 2018-06-05, Analyzed: 2018-06-05					
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Blank (B8F0265-BLK2)				Prepared: 2018-06-05, Analyzed: 2018-06-05					
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
LCS (B8F0265-BS1)				Prepared: 2018-06-05, Analyzed: 2018-06-05					
Alkalinity, Total (as CaCO ₃)	103	1.0 mg/L	100		103	92-106			
LCS (B8F0265-BS2)				Prepared: 2018-06-05, Analyzed: 2018-06-05					
Alkalinity, Total (as CaCO ₃)	103	1.0 mg/L	100		103	92-106			
General Parameters, Batch B8F0282									
Blank (B8F0282-BLK1)				Prepared: 2018-06-05, Analyzed: 2018-06-05					
Solids, Total Suspended	< 2.0	2.0 mg/L							
Blank (B8F0282-BLK2)				Prepared: 2018-06-05, Analyzed: 2018-06-05					
Solids, Total Suspended	< 2.0	2.0 mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

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

General Parameters, Batch B8F0282, Continued

LCS (B8F0282-BS1)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Solids, Total Suspended	105	10.0 mg/L	100		105	83-107			
LCS (B8F0282-BS2)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Solids, Total Suspended	101	10.0 mg/L	100		101	83-107			
Duplicate (B8F0282-DUP1)			Source: 8052910-05		Prepared: 2018-06-05, Analyzed: 2018-06-05				
Solids, Total Suspended	84.0	2.0 mg/L		89.0			6	20	

General Parameters, Batch B8F0284

Blank (B8F0284-BLK1)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Conductivity (EC)	< 2.0	2.0 µS/cm							
LCS (B8F0284-BS1)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Conductivity (EC)	145	2.0 µS/cm	147		99	90-110			
Duplicate (B8F0284-DUP1)			Source: 8052910-02		Prepared: 2018-06-05, Analyzed: 2018-06-05				
Conductivity (EC)	353	2.0 µS/cm		352			< 1	4	
Reference (B8F0284-SRM1)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Conductivity (EC)	1010	2.0 µS/cm	1000		101	95-105			

General Parameters, Batch B8F0337

Blank (B8F0337-BLK1)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Blank (B8F0337-BLK2)			Prepared: 2018-06-06, Analyzed: 2018-06-06						
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
LCS (B8F0337-BS1)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Alkalinity, Total (as CaCO ₃)	102	1.0 mg/L	100		102	92-106			
LCS (B8F0337-BS2)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
Alkalinity, Total (as CaCO ₃)	99.6	1.0 mg/L	100		100	92-106			

General Parameters, Batch B8F0341

Reference (B8F0341-SRM1)			Prepared: 2018-06-05, Analyzed: 2018-06-05						
pH	6.14	0.10 pH units	6.20		99	97.5-102.5			

Polycyclic Aromatic Hydrocarbons (PAH), Batch B8F0947

Blank (B8F0947-BLK1)			Prepared: 2018-06-12, Analyzed: 2018-06-13						
Acenaphthene	< 0.050	0.050 µg/L							
Acenaphthylene	< 0.200	0.200 µg/L							
Acridine	< 0.050	0.050 µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B8F0947, Continued									
Blank (B8F0947-BLK1), Continued					Prepared: 2018-06-12, Analyzed: 2018-06-13				
Anthracene	< 0.010	0.010 µg/L							
Benz(a)anthracene	< 0.010	0.010 µg/L							
Benzo(a)pyrene	< 0.010	0.010 µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050 µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050 µg/L							
Benzo(k)fluoranthene	< 0.050	0.050 µg/L							
2-Chloronaphthalene	< 0.100	0.100 µg/L							
Chrysene	< 0.050	0.050 µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010 µg/L							
Fluoranthene	< 0.030	0.030 µg/L							
Fluorene	< 0.050	0.050 µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050 µg/L							
1-Methylnaphthalene	< 0.100	0.100 µg/L							
2-Methylnaphthalene	< 0.100	0.100 µg/L							
Naphthalene	< 0.200	0.200 µg/L							
Phenanthrene	< 0.100	0.100 µg/L							
Pyrene	< 0.020	0.020 µg/L							
Quinoline	< 0.050	0.050 µg/L							
Surrogate: Acridine-d9	3.79	µg/L	4.46		71	50-140			
Surrogate: Naphthalene-d8	3.87	µg/L	4.50		86	50-140			
Surrogate: Perylene-d12	3.37	µg/L	4.50		75	50-140			
LCS (B8F0947-BS1)					Prepared: 2018-06-12, Analyzed: 2018-06-14				
Acenaphthene	2.91	0.050 µg/L	4.43		66	58-125			
Acenaphthylene	3.19	0.200 µg/L	4.43		72	54-128			
Acridine	2.68	0.050 µg/L	4.47		60	50-112			
Anthracene	3.04	0.010 µg/L	4.47		68	66-125			
Benz(a)anthracene	3.23	0.010 µg/L	4.47		72	59-123			
Benzo(a)pyrene	2.75	0.010 µg/L	4.43		62	62-116			
Benzo(b+j)fluoranthene	6.22	0.050 µg/L	8.95		69	69-121			
Benzo(g,h,i)perylene	2.91	0.050 µg/L	4.43		66	58-129			
Benzo(k)fluoranthene	3.87	0.050 µg/L	4.47		86	67-128			
2-Chloronaphthalene	2.96	0.100 µg/L	4.47		66	50-140			
Chrysene	3.05	0.050 µg/L	4.45		68	58-125			
Dibenz(a,h)anthracene	3.15	0.010 µg/L	4.45		71	58-126			
Fluoranthene	4.00	0.030 µg/L	4.39		91	67-133			
Fluorene	3.12	0.050 µg/L	4.43		70	55-122			
Indeno(1,2,3-cd)pyrene	2.87	0.050 µg/L	4.47		64	62-126			
1-Methylnaphthalene	3.46	0.100 µg/L	4.41		78	53-125			
2-Methylnaphthalene	3.51	0.100 µg/L	4.39		80	52-122			
Naphthalene	3.66	0.200 µg/L	4.47		82	50-130			
Phenanthrene	3.36	0.100 µg/L	4.43		76	67-127			
Pyrene	3.93	0.020 µg/L	4.47		88	68-133			
Quinoline	6.02	0.050 µg/L	4.47		135	51-140			
Surrogate: Acridine-d9	2.88	µg/L	4.47		64	50-140			
Surrogate: Naphthalene-d8	4.13	µg/L	4.52		91	50-140			
Surrogate: Perylene-d12	3.13	µg/L	4.52		69	50-140			
LCS Dup (B8F0947-BSD1)					Prepared: 2018-06-12, Analyzed: 2018-06-14				
Acenaphthene	3.00	0.050 µg/L	4.43		68	58-125	3	16	
Acenaphthylene	3.26	0.200 µg/L	4.43		74	54-128	2	16	
Acridine	2.89	0.050 µg/L	4.48		65	50-112	8	26	
Anthracene	3.12	0.010 µg/L	4.48		70	66-125	3	14	
Benz(a)anthracene	3.36	0.010 µg/L	4.48		75	59-123	4	23	
Benzo(a)pyrene	2.76	0.010 µg/L	4.43		62	62-116	< 1	16	
Benzo(b+j)fluoranthene	6.49	0.050 µg/L	8.95		73	69-121	4	14	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B8F0947, Continued									
LCS Dup (B8F0947-BSD1), Continued					Prepared: 2018-06-12, Analyzed: 2018-06-14				
Benzo(g,h,i)perylene	2.92	0.050 µg/L	4.43		66	58-129	< 1	25	
Benzo(k)fluoranthene	3.75	0.050 µg/L	4.48		84	67-128	3	18	
2-Chloronaphthalene	3.04	0.100 µg/L	4.48		68	50-140	3	30	
Chrysene	3.16	0.050 µg/L	4.45		71	58-125	4	24	
Dibenz(a,h)anthracene	3.14	0.010 µg/L	4.45		70	58-126	< 1	23	
Fluoranthene	4.10	0.030 µg/L	4.39		93	67-133	3	18	
Fluorene	3.19	0.050 µg/L	4.43		72	55-122	2	16	
Indeno(1,2,3-cd)pyrene	2.97	0.050 µg/L	4.48		66	62-126	4	22	
1-Methylnaphthalene	3.54	0.100 µg/L	4.41		80	53-125	2	16	
2-Methylnaphthalene	3.60	0.100 µg/L	4.39		82	52-122	2	17	
Naphthalene	3.77	0.200 µg/L	4.48		84	50-130	3	18	
Phenanthrene	3.43	0.100 µg/L	4.43		77	67-127	2	14	
Pyrene	3.99	0.020 µg/L	4.48		89	68-133	2	18	
Quinoline	6.04	0.050 µg/L	4.48		135	51-140	< 1	12	
Surrogate: Acridine-d9	3.14	µg/L	4.48		70	50-140			
Surrogate: Naphthalene-d8	4.19	µg/L	4.52		93	50-140			
Surrogate: Perylene-d12	3.25	µg/L	4.52		72	50-140			

Total Metals, Batch B8F0355

Blank (B8F0355-BLK1)			Prepared: 2018-06-05, Analyzed: 2018-06-06						
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							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8F0355, Continued									
Blank (B8F0355-BLK1), Continued				Prepared: 2018-06-05, Analyzed: 2018-06-06					
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 (B8F0355-BS1)				Prepared: 2018-06-05, Analyzed: 2018-06-06					
Aluminum, total	0.0237	0.0050 mg/L	0.0200		118	80-120			
Antimony, total	0.0219	0.00020 mg/L	0.0200		109	80-120			
Arsenic, total	0.0213	0.00050 mg/L	0.0200		107	80-120			
Barium, total	0.0200	0.0050 mg/L	0.0200		100	80-120			
Beryllium, total	0.0201	0.00010 mg/L	0.0200		101	80-120			
Bismuth, total	0.0219	0.00010 mg/L	0.0200		110	80-120			
Boron, total	0.0211	0.0050 mg/L	0.0200		106	80-120			
Cadmium, total	0.0199	0.000010 mg/L	0.0200		100	80-120			
Calcium, total	2.28	0.20 mg/L	2.00		114	80-120			
Chromium, total	0.0206	0.00050 mg/L	0.0200		103	80-120			
Cobalt, total	0.0206	0.00010 mg/L	0.0200		103	80-120			
Copper, total	0.0211	0.00040 mg/L	0.0200		106	80-120			
Iron, total	2.05	0.010 mg/L	2.00		102	80-120			
Lead, total	0.0214	0.00020 mg/L	0.0200		107	80-120			
Lithium, total	0.0199	0.00010 mg/L	0.0200		100	80-120			
Magnesium, total	2.12	0.010 mg/L	2.00		106	80-120			
Manganese, total	0.0209	0.00020 mg/L	0.0200		105	80-120			
Molybdenum, total	0.0196	0.00010 mg/L	0.0200		98	80-120			
Nickel, total	0.0204	0.00040 mg/L	0.0200		102	80-120			
Phosphorus, total	2.11	0.050 mg/L	2.00		106	80-120			
Potassium, total	2.13	0.10 mg/L	2.00		107	80-120			
Selenium, total	0.0193	0.00050 mg/L	0.0200		97	80-120			
Silicon, total	2.2	1.0 mg/L	2.00		108	80-120			
Silver, total	0.0200	0.000050 mg/L	0.0200		100	80-120			
Sodium, total	2.13	0.10 mg/L	2.00		107	80-120			
Strontium, total	0.0206	0.0010 mg/L	0.0200		103	80-120			
Sulfur, total	6.3	3.0 mg/L	5.00		125	80-120			RPD
Tellurium, total	0.0210	0.00050 mg/L	0.0200		105	80-120			
Thallium, total	0.0211	0.000020 mg/L	0.0200		105	80-120			
Thorium, total	0.0206	0.00010 mg/L	0.0200		103	80-120			
Tin, total	0.0207	0.00020 mg/L	0.0200		104	80-120			
Titanium, total	0.0226	0.0050 mg/L	0.0200		113	80-120			
Tungsten, total	0.0180	0.0010 mg/L	0.0200		90	80-120			
Uranium, total	0.0222	0.000020 mg/L	0.0200		111	80-120			
Vanadium, total	0.0200	0.0010 mg/L	0.0200		100	80-120			
Zinc, total	0.0222	0.0040 mg/L	0.0200		111	80-120			
Zirconium, total	0.0217	0.00010 mg/L	0.0200		109	80-120			
Duplicate (B8F0355-DUP1)				Source: 8052910-02		Prepared: 2018-06-05, Analyzed: 2018-06-06			
Aluminum, total	0.0691	0.0050 mg/L		0.0675			2	20	
Antimony, total	< 0.00020	0.00020 mg/L		< 0.00020				20	
Arsenic, total	0.00099	0.00050 mg/L		0.00098				15	
Barium, total	0.0313	0.0050 mg/L		0.0303			4	9	
Beryllium, total	< 0.00010	0.00010 mg/L		< 0.00010				16	
Bismuth, total	< 0.00010	0.00010 mg/L		< 0.00010				20	
Boron, total	0.0209	0.0050 mg/L		0.0203				20	
Cadmium, total	0.000209	0.000010 mg/L		0.000210			< 1	20	
Calcium, total	53.3	0.20 mg/L		51.7			3	12	
Chromium, total	< 0.00050	0.00050 mg/L		< 0.00050				12	
Cobalt, total	0.00075	0.00010 mg/L		0.00072			4	13	
Copper, total	0.00044	0.00040 mg/L		0.00047				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8F0355, Continued									
Duplicate (B8F0355-DUP1), Continued		Source: 8052910-02		Prepared: 2018-06-05, Analyzed: 2018-06-06					
Iron, total	0.101	0.010 mg/L		0.096			4	18	
Lead, total	< 0.00020	0.00020 mg/L		< 0.00020				20	
Lithium, total	< 0.00010	0.00010 mg/L		< 0.00010				19	
Magnesium, total	7.38	0.010 mg/L		7.17			3	10	
Manganese, total	0.425	0.00020 mg/L		0.409			4	13	
Molybdenum, total	0.00641	0.00010 mg/L		0.00627			2	20	
Nickel, total	0.00158	0.00040 mg/L		0.00159				20	
Phosphorus, total	0.079	0.050 mg/L		0.068				20	
Potassium, total	1.01	0.10 mg/L		0.98			3	13	
Selenium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Silicon, total	6.7	1.0 mg/L		6.5			4	11	
Silver, total	< 0.000050	0.000050 mg/L		< 0.000050				18	
Sodium, total	13.9	0.10 mg/L		14.3			3	10	
Strontium, total	0.249	0.0010 mg/L		0.239			4	9	
Sulfur, total	15.6	3.0 mg/L		15.0			4	20	
Tellurium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Thallium, total	0.000035	0.000020 mg/L		0.000031				20	
Thorium, total	< 0.00010	0.00010 mg/L		< 0.00010				18	
Tin, total	< 0.00020	0.00020 mg/L		< 0.00020				20	
Titanium, total	< 0.0050	0.0050 mg/L		< 0.0050				20	
Tungsten, total	< 0.0010	0.0010 mg/L		< 0.0010				20	
Uranium, total	0.00108	0.000020 mg/L		0.00109			< 1	14	
Vanadium, total	< 0.0010	0.0010 mg/L		< 0.0010				17	
Zinc, total	< 0.0040	0.0040 mg/L		< 0.0040				8	
Zirconium, total	< 0.00010	0.00010 mg/L		< 0.00010				20	
Reference (B8F0355-SRM1)		Prepared: 2018-06-05, Analyzed: 2018-06-06							
Aluminum, total	0.312	0.0050 mg/L	0.303		103	82-114			
Antimony, total	0.0542	0.00020 mg/L	0.0511		106	88-115			
Arsenic, total	0.131	0.00050 mg/L	0.118		111	88-111			
Barium, total	0.806	0.0050 mg/L	0.823		98	83-110			
Beryllium, total	0.0485	0.00010 mg/L	0.0496		98	80-119			
Boron, total	3.37	0.0050 mg/L	3.45		98	80-118			
Cadmium, total	0.0495	0.000010 mg/L	0.0495		100	90-110			
Calcium, total	12.6	0.20 mg/L	11.6		109	85-113			
Chromium, total	0.268	0.00050 mg/L	0.250		107	88-111			
Cobalt, total	0.0411	0.00010 mg/L	0.0377		109	90-114			
Copper, total	0.539	0.00040 mg/L	0.486		111	90-117			
Iron, total	0.536	0.010 mg/L	0.488		110	90-116			
Lead, total	0.208	0.00020 mg/L	0.204		102	90-110			
Lithium, total	0.387	0.00010 mg/L	0.403		96	79-118			
Magnesium, total	3.92	0.010 mg/L	3.79		103	88-116			
Manganese, total	0.116	0.00020 mg/L	0.109		106	88-108			
Molybdenum, total	0.201	0.00010 mg/L	0.198		101	88-110			
Nickel, total	0.261	0.00040 mg/L	0.249		105	90-112			
Phosphorus, total	0.235	0.050 mg/L	0.227		104	72-118			
Potassium, total	7.88	0.10 mg/L	7.21		109	87-116			
Selenium, total	0.119	0.00050 mg/L	0.121		98	90-122			
Sodium, total	7.75	0.10 mg/L	7.54		103	86-118			
Strontium, total	0.399	0.0010 mg/L	0.375		106	86-110			
Thallium, total	0.0834	0.000020 mg/L	0.0805		104	90-113			
Uranium, total	0.0296	0.000020 mg/L	0.0306		97	88-112			
Vanadium, total	0.409	0.0010 mg/L	0.386		106	87-110			
Zinc, total	2.69	0.0040 mg/L	2.49		108	90-113			

APPENDIX 2: QUALITY CONTROL RESULTS

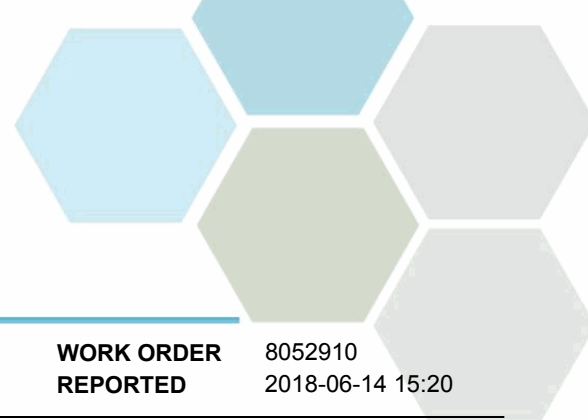
REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8F0416									
Blank (B8F0416-BLK1)				Prepared: 2018-06-06, Analyzed: 2018-06-07					
Mercury, total	< 0.000010	0.000010 mg/L							
Blank (B8F0416-BLK2)				Prepared: 2018-06-06, Analyzed: 2018-06-07					
Mercury, total	< 0.000010	0.000010 mg/L							
Reference (B8F0416-SRM1)				Prepared: 2018-06-06, Analyzed: 2018-06-07					
Mercury, total	0.00459	0.000010 mg/L	0.00489		94	80-120			
Reference (B8F0416-SRM2)				Prepared: 2018-06-06, Analyzed: 2018-06-07					
Mercury, total	0.00442	0.000010 mg/L	0.00489		90	80-120			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
S09 The surrogate recovery for this sample is outside of established control limits .



APPENDIX 3: REVISION HISTORY

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8052910
2018-06-14 15:20

Sample ID	Changed	Change	Analysis	Analyte(s)
8052910-01	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-02	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-03	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-04	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-05	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-06	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-07	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-08	2018-06-08	Added	LEPH/HEPH Pkg	
8052910-09	2018-06-08	Added	LEPH/HEPH Pkg	

Submission Key F151-GBD-894I

SUBMITTED :5/31/2018 6:31:30 AM

Page 1 of 3

Client information	Project information	Laboratory information	COC information
Allterra Construction 2158 Millstream Road Victoria, BC V9B 6H4 Phone: (250) 508-0726 Fax:	Number: [none] Sample count: 9 TAT: 5	CARO Analytical Services #110 - 4011 Viking Way Richmond, BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: May 30 2018 Shipped via: Harbour Air Tracking #: SDG:

#		Analyses	Containers
# 1	MW6 05/30/2018 9:30 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)
# 2	MW3S 05/30/2018 11:15 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)
# 3	MW3D 05/30/2018 11:45 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)
# 4	MW2 05/30/2018 12:45 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)

Submission Key F151-GBD-894I		SUBMITTED :5/31/2018 6:31:30 AM		Page 2 of 3
# 5	SB1	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)	
	05/30/2018 10:30 Grab / Water			
# 6	SB2	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)	
	05/30/2018 10:15 Grab / Water			
# 7	LE-1	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)	
	05/30/2018 13:30 Grab / Water			
# 8	SW-1	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Chromium, speciated total (RMD) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low +Cr6 (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C09_125 mL Plastic (CN/Cr6) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)	
	05/30/2018 12:15 Grab / Water			

Submission Key F151-GBD-894I	SUBMITTED :5/31/2018 6:31:30 AM	Page 3 of 3
------------------------------	---------------------------------	-------------

#		Analyses	Containers
# 9	SW-1 DUP 05/30/2018 12:25 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Chromium, speciated total (RMD) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low +Cr6 (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C09_125 mL Plastic (CN/Cr6) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S08_250 mL Plastic (HNO3) (1)

Relinquished by	Date/Time	Accepted by	Date/Time