

From: SPOMO1701@outlook.com
To: [Environmental Compliance ENV:EX; marty@chholdings.ca](#)
Subject: SPO MO1701-Status Update January 15, 2019
Date: Tuesday, January 15, 2019 10:10:36 PM
Attachments: [Jan 15, 2019 CHH Progress Report.pdf](#)
[Dec 2018 Groundwater Quality DATA-CHH.pdf](#)
[Dec 2018 Surface water Quality DATA-CHH.pdf](#)
[COA DEC 2018 CHH.pdf](#)
[COA DEC 2018 CHH.xlsx](#)

- ***Please find information regarding the Leachate reporting requirements for the January 15, 2019 reporting period as per SPILL PREVENTION ORDER : MO1701 Section 1d***

Total Leachate Collected= 4.06 m³

Total Leachate Stored= 64.02 m³

Total Leachate Transported= 0 m³ (Leachate removal is scheduled in the upcoming reporting period)

- ***Sampling was conducted on December 17, 2018 as per Section 6biii of File 311372 August 11, 2017 letter. Tabulated laboratory results and COA's are attached.***

Sampling Summary:

1. *SHA-SW1*
2. *SHA-SW2*
3. *MW6*
4. *MW3*
5. *MW2*
6. *SHA-LE-1*
7. *SHA-LD-1 (Dry)*
8. *SB-1*
9. *SB-2*
10. *SB-3*

- ***Attached is the QP Progress Report for January 15, 2019 as per File 311372 August 11, 2017 letter.***

Thank you



FIELD REVIEW REPORT		DATE: Jan 15, 2019	ISLANDER PROJECT No.: 2087
REPORT No: 36	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Sun 5°C	PAGE: 1 of 3
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, with no noticeable changes since the date of our last inspection
- **Leachate and Leak Detention facility**
 - Total leachate collected: = 4.06 m³
 - Total leachate stored = 64.02 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



FIELD REVIEW REPORT

DATE: **Jan 15, 2019**

ISLANDER
PROJECT No.: **2087**

REPORT
No: **36**

STAGE OF
CONSTRUCTION: **Landfill Closure**

WEATHER: **Sun 5°C**

PAGE: **2 of 3**



SMA - looking south



SMA - looking north



Contact water containment Pond



Leak and leachate detection works



FIELD REVIEW REPORT		DATE: Jan 15, 2019	ISLANDER PROJECT No.: 2087
REPORT No: 36	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Sun 5°C	PAGE: 3 of 3



PEA – liner near NE corner



PEA– NW corner



Cut-off ditch upland of PEA



PEA north face

Table 1: Analytical Results for Nutrients			SHA-LE-1	SHA-SW-1	SHA-SW-2
Laboratory ID			8121666-08	8121666-09	8121666-10
Sample ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	LE-1	SW1	SW2
Date Sampled/Time			2018-12-17	2018-12-17	2018-12-17
Physical Tests					
Colour, True (Colour Units)	15 TCU	15 ⁽¹⁾ units absolute, or 5 units above background (30-day average)	<5.0	<5.0	9.2
Total Dissolved Solids (mg/L)	-	-	-	-	-
Total Suspended Solids (mg/L)	-	25 mg/L above background (24-hr during clear flow)	<2.0	<2.0	16.2
pH	7-10.5	6.5-9	6.81	7.26	6.09
Conductivity (uS/cm)	-	-	12600	286	21.2
Hardness (as CaCO ₃)	-	-	3070	110	6.15
Turbidity (NTU)	Δ1 NTU	8 NTU above background (24-hr during clear flow)	0.23	2.41	14.1
Anions and Nutrients mg/L					
Alkalinity Total (as CaCO ₃)	<10 high sensitivity to acid inputs 10-20 moderate sensitivity to acid inputs >20 low sensitivity to acid inputs		30.4	67.3	3.8
Acid Sensitivity			Low	Low	High
Chloride (Cl)	250 mg/L	600 mg/L (instant max), 150 mg/L (30-day average)	3290	7.32	1.44
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) ⁽³⁾	0.25	0.28	0.21
Nitrate (as N)	45 mg/L	32.8 mg/L (instant maximum) 3.0 mg/L (30-day average)	1.75	0.329	<0.010
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 (SO ₄) H 0-30 mg/L	500 mg/L	128 mg/L 30-day average)			2.3
H 31 - 75 mg/L		218 mg/L (30-day average)			
H 76 - 180 mg/L		309 mg/L (30-day average)			
H 181 - 250 mg/L		429 mg/L (30-day average)			
H > 250 mg/L		TBD	1640	56.7	

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Total Metals			SHA-LE-1	SHA-SW-1	SHA-SW-2
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8121666-08	8121666-09	8121666-10
Sample ID			LE-1	SW1	SW2
Date Sampled/Time			2018-12-17	2018-12-17	2018-12-17
Physical Tests					
Hardness (as CaCO ₃) (mg/L)	-	-	3070	110	6.15
pH	7-10.5	6.5-9	6.81	7.26	6.09
Total Metals (mg/L)					
Aluminum (Al)-Total	0.2	-	0.0295	0.085	0.201
Antimony (Sb)-Total	-	-	<0.00020	<0.00020	<0.00020
Arsenic (As)-Total	0.01	0.005	<0.00050	<0.00050	<0.00050
Barium (Ba)-Total	-	-	0.0343	0.0076	<0.0050
Beryllium (Be)-Total	-	-	<0.00010	<0.00010	<0.00010
Bismuth, total	-	-	<0.00010	<0.00010	<0.00010
Boron (B)-Total	5	1.2	0.294	0.0164	0.0057
Cadmium (Cd)-Total	-	-	0.000439	<0.000010	<0.000010
Calcium (Ca)-Total	-	-	873	41.9	2.09
Chromium (Cr)-Total	-	-	0.00061	<0.00050	<0.00050
Chromium (Cr(III))	-	-	-	<0.00100	<0.00100
Chromium (Cr(VI))	-	-	-	<0.0010	<0.0010
Cobalt (Co)-Total	-	0.110 (Short Term), 0.004 (Long Term Average)	0.00143	<0.00010	0.00016
Copper (Cu)-Total	0.5	Hardness-Dependent ⁽⁷⁾	0.00221	0.00133	0.00082
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	0.2906	0.0123	0.0026
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	0.1228	0.0044	0.0020
Iron (Fe)-Total	-	1	0.012	0.095	0.115
Lead (Pb)-Total	0.01	Hardness-Dependent ⁽⁸⁾	<0.00020	<0.00020	<0.00020
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	6.3835	0.0922	0.0030
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	0.2523	0.0069	Hardness is less than 8 mg/l
Lithium (Li)-Total	-	-	0.00035	0.00032	0.0002
Magnesium (Mg)-Total	-	-	253	5.73	0.487
Manganese (Mn)-Total	-	Hardness-Dependent ⁽⁸⁾	12.7	0.00501	0.0072
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	34.4	1.8	0.6
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	14.1	1.1	0.6
Mercury (Hg)-Total	0.001	0.00002	<0.000010	<0.000010	<0.000010
Molybdenum (Mo)-Total	0.25	≤1 (instant max) 2 (30-d average)	0.00041	0.00079	<0.00010
Nickel (Ni)-Total	-	0.025 (Hardness-Dependent ⁽¹⁾ BCAWQG to protect AW H<60mg/L)	0.00646	0.00082	0.00077
		Calculated Hardness-Dependent ⁽¹⁾ BCAWQG to protect AW 60:HS±180 mg/L CaCO ₃	1.289	0.103	0.025
Phosphorus(P)-Total	-	-	<0.050	<0.050	<0.050
Potassium (K)-Total	-	-	30.7	0.7	0.25
Selenium (Se)-Total	0.01	0.002	<0.00050	<0.00050	<0.00050
Silicon (Si)-Total	-	-	6.5	5.2	3
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)	0.000052	<0.000050	<0.000050
Sodium (Na)-Total	-	-	1760	7.8	1.47
Strontium (Sr)-Total	-	-	4.28	0.107	0.0091
Sulfur (S)-Total	-	-	769	25.5	3.6
Tellurium (Te)-Total	-	-	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Total	-	-	0.00002	<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	-	-	<0.0050	<0.0050	0.0061
Uranium (U)-Total	-	-	0.00007	0.000436	<0.000020
Vanadium (V)-Total	-	-	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	5.0	Hardness >90 mg/L	0.0574	<0.0040	<0.0040
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	2.268	0.048	0.033
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	2.243	0.023	0.008
Zirconium (Zr)-Total	-	-	<0.00010	<0.00010	0.00014

Table 3: Analytical Results for Dissolved Metals			SHA-LE-1	SHA-SW-1	SHA-SW-2
Laboratory ID			8121666-08	8121666-09	8121666-10
Sample ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	LE-1	SW1	SW2
Date Sampled/Time			2018-12-17	2018-12-17	2018-12-17
Physical Tests					
Hardness (as CaCO3) (mg/L)	-	-	3070	110	6.15
pH	7-10.5	6.5-9	6.81	7.26	6.09
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	0.0092	<0.0050	0.0759
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (instant max)	0.129	0.265	0.052
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (30-d Mean)	0.089	0.255	0.023
Antimony (Sb)-Dissolved	-	-	<0.00020	0.0002	<0.00020
Arsenic (As)-Dissolved	-	-	<0.00050	<0.00050	<0.00050
Barium (Ba)-Dissolved	-	-	0.0331	0.006	<0.0050
Beryllium (Be)-Dissolved	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	-	-	<0.00010	<0.00010	<0.00010
Boron (B)-Dissolved	-	-	0.323	0.0177	0.0061
Cadmium (Cd)-Dissolved	-	Hardness-Dependent⁽³⁾	0.000409	<0.000010	<0.000010
		Calculated Hardness-Dependent ⁽³⁾ BCAWQG to protect AW (short-term max) $e[1.03 * \ln(Hss) - 5.274]$ ug/L H<455mg/L	Hardness exceeds 455mg/L	0.00065	0.00003
		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	0.00023	0.00003
Calcium (Ca)-Dissolved	-	up to 4, highly sensitive to acid inputs 4 to 8, moderately sensitive over 8 low sensitivity	840	35.5	1.8
Chromium (Cr)-Dissolved	-	-	Low	Low	High
Chromium (Cr)-Dissolved	-	-	0.00068	<0.00050	<0.00050
Cobalt (Co)-Dissolved	-	-	0.00141	<0.00010	<0.00010
Copper (Cu)-Dissolved	-	-	0.00197	0.00092	0.00053
Iron (Fe)-Dissolved	-	0.35	<0.010	<0.010	0.013
Lead (Pb)-Dissolved	-	-	<0.00020	<0.00020	<0.00020
Lithium, dissolved	-	-	0.00025	0.00011	<0.00010
Magnesium (Mg)-Dissolved	-	-	236	5.21	0.399
Manganese (Mn)-Dissolved	-	-	10.4	0.00182	0.00459
Mercury (Hg)-Dissolved	-	-	<0.000010	<0.000010	<0.000010
Molybdenum (Mo)-Dissolved	-	-	0.00021	0.00038	0.00019
Nickel (Ni)-Dissolved	-	-	0.00568	<0.00040	<0.00040
Phosphorus (P)-Dissolved	-	-	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	-	-	28.6	0.54	0.13
Selenium (Se)-Dissolved	-	-	<0.00050	<0.00050	<0.00050
Silicon (Si)-Dissolved	-	-	6.1	4.4	2.2
Silver (Ag)-Dissolved	-	-	0.000065	<0.000050	<0.000050
Sodium (Na)-Dissolved	-	-	1750	6.23	1.16
Strontium (Sr)-dissolved	-	-	4.5	0.102	0.0086
Sulfur (S)-Dissolved	-	-	754	19.7	<3.0
Tellurium (Te)-Dissolved	-	-	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Dissolved	-	-	<0.000020	<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	-	-	0.000069	0.000398	<0.000020
Vanadium (V)-Dissolved	-	-	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Dissolved	-	-	0.0462	<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			SHA-LE-1	SHA-SW-1	SHA-SW-2
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8121666-08	8121666-09	8121666-10
Sample ID			LE-1	SW1	SW2
Date Sampled/ Time			2018-12-17	2018-12-17	2018-12-17
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)	0.139	<0.050	<0.050
Anthracene	-	4 (LONG TERM), 0.1 (PHOTOTOXIC)	<0.010	<0.010	<0.010
Benz(a)anthracene	0.01	0.1 (LONG TERM), 0.1 (PHOTOTOXIC)	0.277	<0.010	<0.010
Benzo(a)pyrene	-	0.01 (LONG TERM)	0.175	<0.010	<0.010
Benzo(b)fluoranthene	-	-			
Benzo(b+j)fluoranthene	-	-	0.383	<0.050	<0.050
Benzo(g,h,i)perylene	-	-	0.151	<0.050	<0.050
Benzo(k)fluoranthene	-	-	0.201	<0.050	<0.050
2-Chloronaphthalene			<0.100	<0.100	<0.100
Chrysene	-	-	0.311	<0.050	<0.050
Dibenz(a,h)anthracene	-	-	0.134	<0.010	<0.010
Fluoranthene	-	4 (LONG TERM), 0.2 (PHOTOTOXIC)	0.093	<0.030	<0.030
Fluorene	-	12 (LONG TERM)	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	-	-	0.123	<0.050	<0.050
1-Methylnaphthalene			<0.100	<0.100	<0.100
2-Methylnaphthalene			<0.100	<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)	0.109	<0.020	<0.020
Quinoline	-	-	<0.050	<0.050	<0.050

Notes: Refer to Table Endnotes (attached)

Analytical Table Footnotes: Leachate and Surface Water

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

"<" less than the laboratory detection limit indicated.

"-" means not analyzed or no standard or guideline applies.

* RPDs are not normally calculated where one or more concentrations are less than five times RDL.

(1) Guideline of 15 mg/L Pt for Drinking Water. Once background levels are established, colour should also not exceed 5 mg/L above background, to protect for Aquatic Life. This is considered a clearwater system (background less than 20 mg/L Pt.)

(2) Nitrite BCAWWQG Guideline is Chloride dependent

(3) Standard is calculated based on the hardness dependent BCAWWQG formula, and has been calculated and shown for each individual result

(4) pH-dependent maximum where instant pH < 6.5

BOLD, UNDERLINE

Laboratory Detection Limit exceeds one or more applicable Standard

BOLD, BLUE SHADING

Concentration greater than BCAWWQG Guideline

BOLD, BEIGE SHADING

Concentration greater than BCAWWQG Chronic Guideline

BOLD, GREEN SHADING

Concentration greater than BC Ministry of Environment Drinking Water Sources

RED FONT

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

Table 1: Analytical Results for Nutrients

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
	As-built Well Depths		47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID			8121666-01	8121666-02	8121666-03	8121666-04	8121666-05	8121666-06	8121666-07
Date Sampled	Aquatic Life	Drinking Water	MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
			2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17
Physical Tests									
Colour, True (TCU)	-	-	6	<5.0	6.1	8.6	<5.0	<5.0	<5.0
Conductivity (uS/cm)	-	-	1300	378	255	298	240	434	231
Hardness (as CaCO3) mg/L	-	-	532	139	93.1	116	92	164	85.3
pH (pH Units)	-	-	7.01	7.39	7.33	7.42	6.56	6.61	6.68
Total Suspended Solids mg/L			10.2	10.2	7.6	20.8	101	29.3	808
Total Dissolved Solids mg/L	-	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	29.5	5.01	4.6	17.4	73.4	44	663
Anions and Nutrients mg/L									
Alkalinity, Total (as CaCO3)	-	-	609	127	107	128	64.4	153	44.6
Chloride (Cl)	1500	250	37.6	16.3	2.59	5.76	4.95	14.6	2.49
Fluoride (F)	2 (H < 50) 3 (H ≥ 50)	1.5	0.12	<0.10	0.1	<0.10	<0.10	<0.10	<0.10
Nitrate (as N)	400	10	<0.010	<0.010	<0.010	0.01	0.252	0.258	0.266
Nitrite (as N) ⁽⁹⁾ Cl <2 mg/L	0.2								
Cl 2 - <4 mg/L	0.4	3.2			<0.010				
Cl 4 - <6 mg/L	0.6					<0.010			
Cl 6 - <8 mg/L	0.8								
Cl 8 - <10 mg/L	1								
Cl ≥ 10 mg/L	2								
Sulfate (SO4)	1000	500	70.2	38.7	19.3	16.4	43.8	45.4	57.1

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Total Metals

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID			8121666-01	8121666-02	8121666-03	8121666-04	8121666-05	8121666-06	8121666-07
Date Sampled	Aquatic Life	Drinking Water	MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
			2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17
Physical Tests mg/L									
Hardness (as CaCO ₃)	-	-	532	139	93.1	116	92	164	85.3
Total Metals mg/L									
Aluminum (Al)-Total	-	-	0.167	0.0863	0.0843	0.445	3.96	2.01	34.4
Antimony (Sb)-Total	-	-	0.00073	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00027
Arsenic (As)-Total	-	-	0.00646	0.0014	0.00164	0.00231	<0.00050	<0.00050	0.00337
Barium (Ba)-Total	-	-	0.102	0.0359	0.0235	0.037	0.0289	0.0165	0.101
Beryllium (Be)-Total	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00045
Bismuth (Bi)- Total	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Boron (B)-Total	-	-	0.0707	0.0214	0.0242	0.0249	0.0087	0.0183	0.0187
Cadmium (Cd)-Total	-	-	0.00007	0.000093	0.000101	0.000045	0.000017	<0.000010	0.000073
Calcium (Ca)-Total	-	-	184	52.5	35.2	42	38.1	66.1	45.3
Chromium (Cr)-Total	-	-	0.00066	<0.00050	<0.00050	0.00082	0.00452	0.00316	0.0594
Cobalt (Co)-Total	-	-	0.00386	0.00063	0.00044	0.00074	0.00419	0.0016	0.0405
Copper (Cu)-Total	-	-	0.00215	0.00045	<0.00040	0.00076	0.0102	0.00599	0.0899
Iron (Fe)-Total	-	-	4.68	0.193	0.234	1.02	4.54	2.21	37.5
Lead (Pb)-Total	-	-	0.00061	<0.00020	<0.00020	0.00062	0.00389	0.00077	0.011
Lithium (Li)-Total	-	-	0.0106	0.00019	0.00012	0.00016	0.00121	0.00088	0.011
Magnesium (Mg)-Total	-	-	40.1	8.81	5.71	8.97	4.78	9.75	18.7
Manganese (Mn)-Total	-	-	2.56	0.408	0.361	0.52	0.115	0.059	0.646
Mercury (Hg)-Total	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Molybdenum (Mo)-Total	-	-	0.00164	0.00658	0.0075	0.00497	0.00044	0.00068	0.00123
Nickel (Ni)-Total	-	-	0.00859	0.00172	0.00164	0.00172	0.00872	0.00366	0.0525
Phosphorus(P)-Total	-	-	0.07	0.129	0.134	0.233	0.143	0.096	1.05
Potassium (K)-Total	-	-	3.59	1.06	0.73	0.86	0.71	1.29	2.1
Selenium (Se)-Total	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00071
Silicon (Si)-Total	-	-	13.9	7.7	7.5	8.7	9.7	10.2	47.4
Silver (Ag)-Total	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00008
Sodium (Na)-Total	-	-	62.2	15	12.1	11.2	5.28	15.4	7.09
Strontium (Sr)-Total	-	-	0.593	0.24	0.196	0.167	0.0926	0.186	0.137
Sulfur (S)-Total	-	-	24.1	14.4	7.2	7.2	16.2	17.2	22.9
Tellurium (Te)-Total	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Total	-	-	0.000058	0.000036	<0.000020	0.000026	<0.000020	<0.000020	0.000067
Thorium (Th)-Total	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00066
Tin (Sn)-Total	-	-	0.00104	<0.00020	<0.00020	<0.00020	0.00031	<0.00020	0.00077
Titanium (Ti)-Total	-	-	0.008	<0.0050	<0.0050	0.0231	0.226	0.119	1.66
Uranium (U)-Total	-	-	0.00647	0.00104	0.000709	0.000861	0.000347	0.000988	0.00111
Vanadium (V)-Total	-	-	<0.0010	<0.0010	<0.0010	0.0018	0.0106	0.0053	0.0827
Zinc (Zn)-Total	-	-	0.0102	<0.0040	<0.0040	0.0048	0.0141	0.0087	0.0829
Zirconium (Zr)-Total	-	-	0.0002	0.00016	0.00023	0.00017	0.00023	0.00028	0.00398

Notes: Refer to Table Endnotes (attached)

Table 3: Analytical Results for Dissolved Metals

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID			8121666-01	8121666-02	8121666-03	8121666-04	8121666-05	8121666-06	8121666-07
			MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
Date Sampled	Aquatic Life	Drinking Water	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17
Physical Tests mg/L									
Hardness (as CaCO3)	-	-	532	139	93.1	116	92	164	85.3
Dissolved Metals mg/L									
Aluminum (Al)-Dissolved	-	9.5	<0.0050	0.0082	<0.0050	0.014	0.0054	<0.0050	0.0088
Antimony (Sb)-Dissolved	0.2	0.006	0.00035	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Arsenic (As)-Dissolved	0.05	0.01	0.00508	0.00133	0.00147	0.00219	<0.00050	<0.00050	<0.00050
Barium (Ba)-Dissolved	10	1	0.082	0.0321	0.0214	0.0313	0.0059	0.006	<0.0050
Beryllium (Be)-Dissolved	0.053	-	<0.00010	<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	<0.00010
Boron (B)-Dissolved	50	5	0.0737	0.0252	0.0255	0.0259	0.0092	0.0184	0.0135
Cadmium (Cd)-Dissolved	0.0001 (H<30)	0.005							
	0.0003 (H=30-<90)								<0.000010
	0.0005 (H=90-<150)			<0.000010	<0.000010	<0.000010	0.000011		
	0.0006 (H=150-<210)		<0.000010					<0.000010	
Calcium (Ca)-Dissolved	-	-	156	44	28.9	35	31.3	53.4	27
Chromium (Cr)-Dissolved	0.01	0.05	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Colbalt (Co)-Dissolved	0.04	-	0.00209	0.00055	0.00037	0.00036	0.00018	<0.00010	0.00011
Copper (Cu)-Dissolved	0.02 (H<50)	1							
	0.03 (H=50-<75)								
	0.04 (H=75-<100)				<0.00040		0.00063		0.00083
	0.05 (H=100-<125)					<0.00040			
	0.06 (H=125-<150)				<0.00040				
	0.07 (H=150-<175)							0.00073	
	0.08 (H=175-<200)								
0.09 (H>200)		<0.00040							
Iron (Fe)-Dissolved	-	6.5	3.37	0.113	0.152	0.31	<0.010	<0.010	<0.010
Lead (Pb)-Dissolved	0.04 (H<50)	0.01							
	0.05 (H=50-<100)				<0.00020	<0.00020	<0.00020	<0.00020	
	0.06 (H=100-<200)			<0.00020		<0.00020		<0.00020	
	0.11 (H=200-<300)								
	0.16 (H>300)		<0.00020						
Lithium (Li)-Dissolved	-	-	0.0108	0.00011	<0.00010	<0.00010	<0.00010	0.00012	<0.00010
Magnesium (Mg)-Dissolved	-	100	34.2	7.14	5.05	6.86	3.31	7.33	4.29
Manganese (Mn)-Dissolved	-	0.55	2.28	0.408	0.348	0.516	0.00082	0.00081	0.00069
Mercury (Hg)-Dissolved	0.001	0.001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Molybdenum (Mo)-Dissolved	10	0.25	0.00114	0.00555	0.00598	0.00396	<0.00010	0.00028	0.00045
Nickel (Ni)-Dissolved	0.25 (H<60)	-							
	0.65 (H=60-<120)				0.00091	0.00074	0.00418		0.00082
	1.1 (H=120-<180)			0.00126				0.00074	
	1.5 (H>=180)		0.00166						
Phosphorus(P)-Dissolved	-	-	<0.050	0.086	0.127	0.163	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	-	-	3.24	0.85	0.57	0.66	0.33	0.87	0.4
Selenium (Se)-Dissolved	0.01	0.01	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silicon (Si)-Dissolved	-	-	12.9	6.8	6.6	7.2	3.7	5.9	4.1
Silver (Ag)-Dissolved	0.0005 (H<=100)	-			<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
	0.015 (H>100)		<0.000050	<0.000050				<0.000050	
Sodium (Na)-Dissolved	-	200	53.6	12.4	9.72	8.97	4.17	12.4	4.2
Strontium (Sr)-Dissolved	-	-	0.604	0.241	0.192	0.171	0.0889	0.176	0.0676
Sulfur (S)-Dissolved	-	-	21.1	13.1	6.1	4.9	15	15.3	20.2
Tellurium (Te)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Dissolved	0.003	-	<0.000020	0.000023	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Thorium (Th)-Dissolved	-	-	<0.00010	<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	<0.00020
Titanium (Ti)-Dissolved	1	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (U)-Dissolved	3	0.02	0.00634	0.00099	0.000636	0.000803	0.00019	0.000846	0.000118
Vanadium (V)-Dissolved	-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Dissolved	0.075 (H<90)	5							
	0.150 (H=90-<100)				<0.0040	<0.0040		<0.0040	
	0.900 (H=100-<200)			<0.0040		<0.0040		<0.0040	
	1.650 (H=200-<300)								
2.4 (H=300-<400)		<0.0040							
Zirconium (Zr)-Dissolved	-	-	0.00021	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Notes: Refer to Table Endnotes (attached)

Table 4: Analytical Results for Hydrocarbons and PAHs

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
	As-built Well Depths		47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID			8121666-01	8121666-02	8121666-03	8121666-04	8121666-05	8121666-06	8121666-07
Date Sampled	Aquatic Life	Drinking Water	MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
			2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17	2018-12-17
Turbidity (NTU)	-	-	29.5	5.01	4.6	17.4	73.4	44	663
Hydrocarbons ug/L									
EPH10-19	5000	5000	<250	<250	<250	<250	<250	<250	<250
EPH10-19 (SG)	5000	5000	-	-	-	-	-	-	-
EPH19-32	-	-	<250	<250	<250	<250	<250	<250	<250
EPH19-32 (SG)	-	-	-	-	-	-	-	-	-
LEPH	500	-	<250	<250	<250	<250	<250	<250	<250
HEPH	-	-	<250	<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	<0.050
Acenaphthylene	-	-	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Acridine	0.5	-	<0.050	0.12	0.257	0.166	<0.050	<0.050	<0.050
Anthracene	1	-	<0.010	<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	0.015
Benzo(a)pyrene	0.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.017
Benzo(b)fluoranthene	-	-	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	-	-	<0.050	<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	<0.050
Benzo(k)fluoranthene	-	-	<0.050	<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	<0.100
Chrysene	1	-	<0.050	<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	<0.010
Fluoranthene	2	-	<0.030	<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	<0.050
Indeno(1,2,3-c,d)pyrene	-	-	<0.050	<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	<0.100
2-Methylnaphthalene			<0.100	<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	<0.200
Phenanthrene	3	-	<0.100	<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	<0.020
Quinoline	34	-	<0.050	<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 and Seepage Blanket Water

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

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

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

Total Metals	Arsenic, total	mg/L	0.0005	0.00646	0.0014	0.00164	0.00231	<0.00050	<0.00050	0.00337	<0.00050	<0.00050	<0.00050
Total Metals	Barium, total	mg/L	0.005	0.102	0.0359	0.0235	0.037	0.0289	0.0165	0.101	0.0343	0.0076	<0.0050
Total Metals	Beryllium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00045	<0.00010	<0.00010	<0.00010
Total Metals	Bismuth, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Boron, total	mg/L	0.005	0.0707	0.0214	0.0242	0.0249	0.0087	0.0183	0.0187	0.294	0.0164	0.0057
Total Metals	Cadmium, total	mg/L	1E-05	0.00007	0.000093	0.000101	0.000045	0.000017	<0.000010	0.000073	0.000439	<0.000010	<0.000010
Total Metals	Calcium, total	mg/L	0.2	184	52.5	35.2	42	38.1	66.1	45.3	873	41.9	2.09
Total Metals	Chromium, total	mg/L	0.0005	0.00066	<0.00050	<0.00050	0.00082	0.00452	0.00316	0.0594	0.00061	<0.00050	<0.00050
Total Metals	Cobalt, total	mg/L	0.0001	0.00386	0.00063	0.00044	0.00074	0.00419	0.0016	0.0405	0.00143	<0.00010	0.00016
Total Metals	Copper, total	mg/L	0.0004	0.00215	0.00045	<0.00040	0.00076	0.0102	0.00599	0.0899	0.00221	0.00133	0.00082
Total Metals	Iron, total	mg/L	0.01	4.68	0.193	0.234	1.02	4.54	2.21	37.5	0.012	0.095	0.115
Total Metals	Lead, total	mg/L	0.0002	0.00061	<0.00020	<0.00020	0.00062	0.00389	0.00077	0.011	<0.00020	<0.00020	<0.00020
Total Metals	Lithium, total	mg/L	0.0001	0.0106	0.00019	0.00012	0.00016	0.00121	0.00088	0.011	0.00035	0.00032	0.0002
Total Metals	Magnesium, total	mg/L	0.01	40.1	8.81	5.71	8.97	4.78	9.75	18.7	253	5.73	0.487
Total Metals	Manganese, total	mg/L	0.0002	2.56	0.408	0.361	0.52	0.115	0.059	0.646	12.7	0.00501	0.0072
Total Metals	Mercury, total	mg/L	1E-05	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Total Metals	Molybdenum, total	mg/L	0.0001	0.00164	0.00658	0.0075	0.00497	0.00044	0.00068	0.00123	0.00041	0.00079	<0.00010
Total Metals	Nickel, total	mg/L	0.0004	0.00859	0.00172	0.00164	0.00172	0.00872	0.00366	0.0525	0.00646	0.00082	0.00077
Total Metals	Phosphorus, total	mg/L	0.05	0.07	0.129	0.134	0.233	0.143	0.096	1.05	<0.050	<0.050	<0.050
Total Metals	Potassium, total	mg/L	0.1	3.59	1.06	0.73	0.86	0.71	1.29	2.1	30.7	0.7	0.25
Total Metals	Selenium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00071	<0.00050	<0.00050	<0.00050
Total Metals	Silicon, total	mg/L	1	13.9	7.7	7.5	8.7	9.7	10.2	47.4	6.5	5.2	3
Total Metals	Silver, total	mg/L	5E-05	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00008	0.000052	<0.000050	<0.000050
Total Metals	Sodium, total	mg/L	0.1	62.2	15	12.1	11.2	5.28	15.4	7.09	1760	7.8	1.47
Total Metals	Strontium, total	mg/L	0.001	0.593	0.24	0.196	0.167	0.0926	0.186	0.137	4.28	0.107	0.0091
Total Metals	Sulfur, total	mg/L	3	24.1	14.4	7.2	7.2	16.2	17.2	22.9	769	25.5	3.6
Total Metals	Tellurium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Thallium, total	mg/L	2E-05	0.000058	0.000036	<0.000020	0.000026	<0.000020	<0.000020	0.000067	0.00002	<0.000020	<0.000020
Total Metals	Thorium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00066	<0.00010	<0.00010	<0.00010
Total Metals	Tin, total	mg/L	0.0002	0.00104	<0.00020	<0.00020	<0.00020	<0.00020	0.00031	<0.00020	0.00077	<0.00020	<0.00020
Total Metals	Titanium, total	mg/L	0.005	0.008	<0.0050	<0.0050	0.0231	0.226	0.119	1.66	<0.0050	<0.0050	0.0061
Total Metals	Tungsten, total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Metals	Uranium, total	mg/L	2E-05	0.00647	0.00104	0.000709	0.000861	0.000347	0.000988	0.00111	0.00007	0.000436	<0.000020
Total Metals	Vanadium, total	mg/L	0.001	<0.0010	<0.0010	<0.0010	0.0018	0.0106	0.0053	0.0827	<0.0010	<0.0010	<0.0010
Total Metals	Zinc, total	mg/L	0.004	0.0102	<0.0040	<0.0040	0.0048	0.0141	0.0087	0.0829	0.0574	<0.0040	<0.0040
Total Metals	Zirconium, total	mg/L	0.0001	0.0002	0.00016	0.00023	0.00017	0.00023	0.00028	0.00398	<0.00010	<0.00010	0.00014



CERTIFICATE OF ANALYSIS

REPORTED TO	Allterra Construction 2158 Millstream Road Victoria, BC V9B 6H4	WORK ORDER	8121666
ATTENTION	Rahim Gaidhar	RECEIVED / TEMP REPORTED	2018-12-19 12:30 / 10°C 2018-12-30 17:17
PO NUMBER	P15-06 SIRM	COC NUMBER	Dec 2018
PROJECT	P17-932		
PROJECT INFO			

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.

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

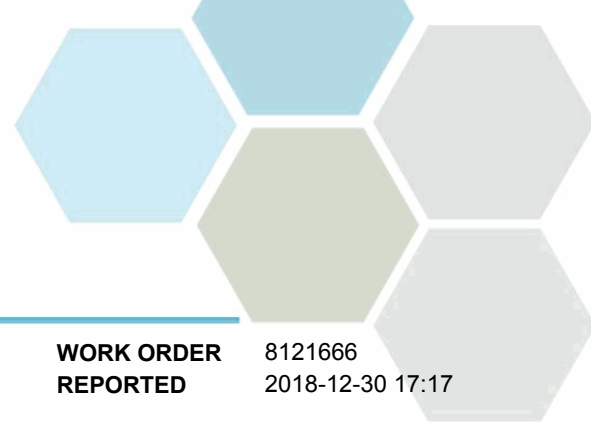
#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8121666-01) Matrix: Water Sampled: 2018-12-17 10:00					
Anions					
Chloride	37.6	0.10	mg/L	2018-12-21	
Fluoride	0.12	0.10	mg/L	2018-12-21	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-23	HT1
Sulfate	70.2	1.0	mg/L	2018-12-21	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	71	60-140	%	2018-12-21	
Calculated Parameters					
Hardness, Total (as CaCO3)	532	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Antimony, dissolved	0.00035	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	0.00508	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0820	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0737	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	156	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	0.00209	0.00010	mg/L	2018-12-24	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-12-24	
Iron, dissolved	3.37	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	0.0108	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	34.2	0.010	mg/L	2018-12-24	
Manganese, dissolved	2.28	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00114	0.00010	mg/L	2018-12-24	
Nickel, dissolved	0.00166	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-12-24	
Potassium, dissolved	3.24	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	12.9	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	53.6	0.10	mg/L	2018-12-24	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

MW6 (8121666-01) | Matrix: Water | Sampled: 2018-12-17 10:00, Continued

Dissolved Metals, Continued

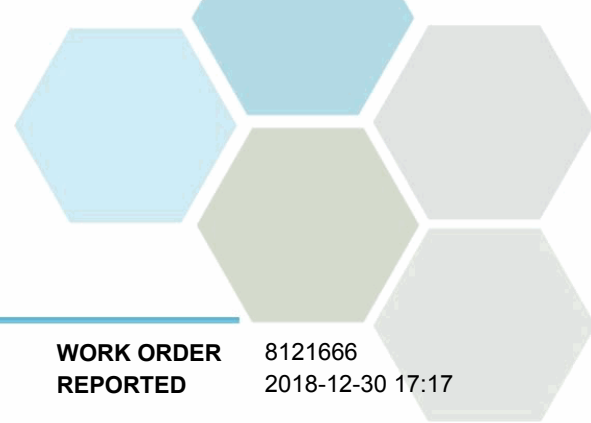
Strontium, dissolved	0.604	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	21.1	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.00634	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	0.00021	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	609	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	609	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Colour, True	6.0	5.0	CU	2018-12-21	HT1
Conductivity (EC)	1300	2.0	µS/cm	2018-12-24	
pH	7.01	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	10.2	2.0	mg/L	2018-12-21	
Turbidity	29.5	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	< 0.050	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	

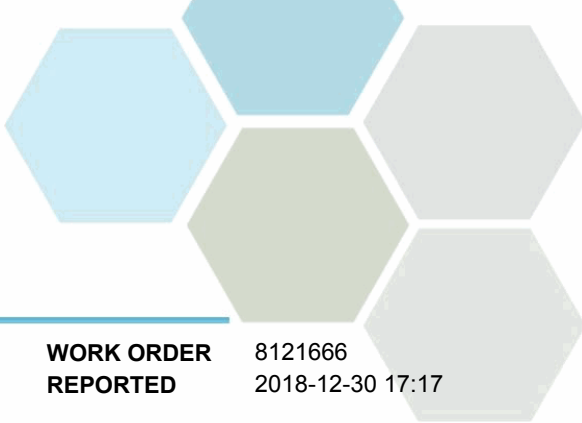


TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8121666-01) Matrix: Water Sampled: 2018-12-17 10:00, Continued					
<i>Polycyclic Aromatic Hydrocarbons (PAH), Continued</i>					
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	89	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	91	50-140	%	2018-12-22	
Surrogate: Perylene-d12	101	50-140	%	2018-12-22	
Total Metals					
Aluminum, total	0.167	0.0050	mg/L	2018-12-23	
Antimony, total	0.00073	0.00020	mg/L	2018-12-23	
Arsenic, total	0.00646	0.00050	mg/L	2018-12-23	
Barium, total	0.102	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0707	0.0050	mg/L	2018-12-23	
Cadmium, total	0.000070	0.000010	mg/L	2018-12-23	
Calcium, total	184	0.20	mg/L	2018-12-23	
Chromium, total	0.00066	0.00050	mg/L	2018-12-23	
Cobalt, total	0.00386	0.00010	mg/L	2018-12-23	
Copper, total	0.00215	0.00040	mg/L	2018-12-23	
Iron, total	4.68	0.010	mg/L	2018-12-23	
Lead, total	0.00061	0.00020	mg/L	2018-12-23	
Lithium, total	0.0106	0.00010	mg/L	2018-12-23	
Magnesium, total	40.1	0.010	mg/L	2018-12-23	
Manganese, total	2.56	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00164	0.00010	mg/L	2018-12-23	
Nickel, total	0.00859	0.00040	mg/L	2018-12-23	
Phosphorus, total	0.070	0.050	mg/L	2018-12-23	
Potassium, total	3.59	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	13.9	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	62.2	0.10	mg/L	2018-12-23	
Strontium, total	0.593	0.0010	mg/L	2018-12-23	
Sulfur, total	24.1	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	0.000058	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	0.00104	0.00020	mg/L	2018-12-23	
Titanium, total	0.0080	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

MW6 (8121666-01) | Matrix: Water | Sampled: 2018-12-17 10:00, Continued

Total Metals, Continued

Uranium, total	0.00647	0.000020	mg/L	2018-12-23	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-12-23	
Zinc, total	0.0102	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00020	0.00010	mg/L	2018-12-23	

MW3S (8121666-02) | Matrix: Water | Sampled: 2018-12-17 12:30

Anions

Chloride	16.3	0.10	mg/L	2018-12-21	
Fluoride	< 0.10	0.10	mg/L	2018-12-21	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Sulfate	38.7	1.0	mg/L	2018-12-21	

BCMOE Aggregate Hydrocarbons

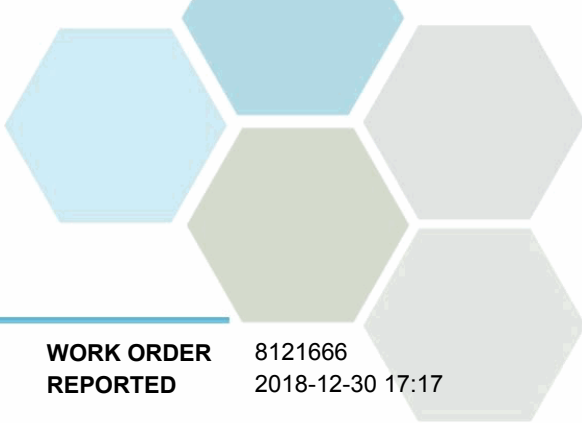
EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	74	60-140	%	2018-12-21	

Calculated Parameters

Hardness, Total (as CaCO3)	139	0.500	mg/L	N/A	
----------------------------	-----	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	0.0082	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	0.00133	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0321	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0252	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	44.0	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	0.00055	0.00010	mg/L	2018-12-24	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-12-24	
Iron, dissolved	0.113	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	0.00011	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	7.14	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.408	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

MW3S (8121666-02) | Matrix: Water | Sampled: 2018-12-17 12:30, Continued

Dissolved Metals, Continued

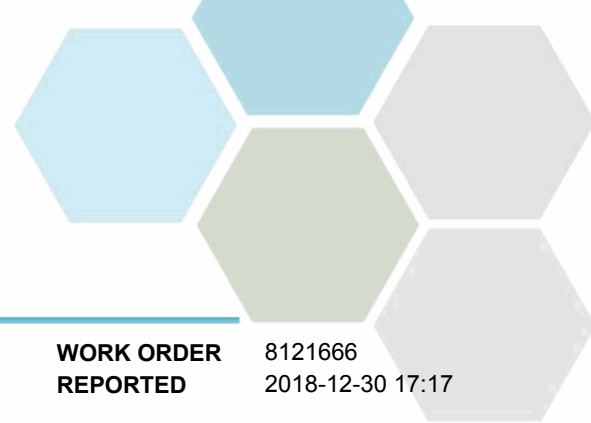
Molybdenum, dissolved	0.00555	0.00010	mg/L	2018-12-24	
Nickel, dissolved	0.00126	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	0.086	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.85	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	6.8	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	12.4	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.241	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	13.1	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	0.000023	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000990	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	127	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	127	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Colour, True	< 5.0	5.0	CU	2018-12-21	HT1
Conductivity (EC)	378	2.0	µS/cm	2018-12-24	
pH	7.39	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	10.2	2.0	mg/L	2018-12-21	
Turbidity	5.01	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	0.120	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	

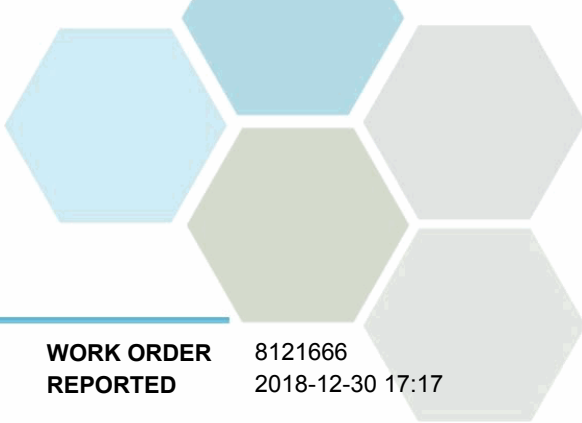


TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
MW3S (8121666-02) Matrix: Water Sampled: 2018-12-17 12:30, Continued					
<i>Polycyclic Aromatic Hydrocarbons (PAH), Continued</i>					
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	83	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	88	50-140	%	2018-12-22	
Surrogate: Perylene-d12	88	50-140	%	2018-12-22	
Total Metals					
Aluminum, total	0.0863	0.0050	mg/L	2018-12-23	
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	0.00140	0.00050	mg/L	2018-12-23	
Barium, total	0.0359	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0214	0.0050	mg/L	2018-12-23	
Cadmium, total	0.000093	0.000010	mg/L	2018-12-23	
Calcium, total	52.5	0.20	mg/L	2018-12-23	
Chromium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Cobalt, total	0.00063	0.00010	mg/L	2018-12-23	
Copper, total	0.00045	0.00040	mg/L	2018-12-23	
Iron, total	0.193	0.010	mg/L	2018-12-23	
Lead, total	< 0.00020	0.00020	mg/L	2018-12-23	
Lithium, total	0.00019	0.00010	mg/L	2018-12-23	
Magnesium, total	8.81	0.010	mg/L	2018-12-23	
Manganese, total	0.408	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00658	0.00010	mg/L	2018-12-23	
Nickel, total	0.00172	0.00040	mg/L	2018-12-23	
Phosphorus, total	0.129	0.050	mg/L	2018-12-23	
Potassium, total	1.06	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	7.7	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	15.0	0.10	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
MW3S (8121666-02) Matrix: Water Sampled: 2018-12-17 12:30, Continued					
<i>Total Metals, Continued</i>					
Strontium, total	0.240	0.0010	mg/L	2018-12-23	
Sulfur, total	14.4	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	0.000036	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	< 0.00020	0.00020	mg/L	2018-12-23	
Titanium, total	< 0.0050	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.00104	0.000020	mg/L	2018-12-23	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-12-23	
Zinc, total	< 0.0040	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00016	0.00010	mg/L	2018-12-23	

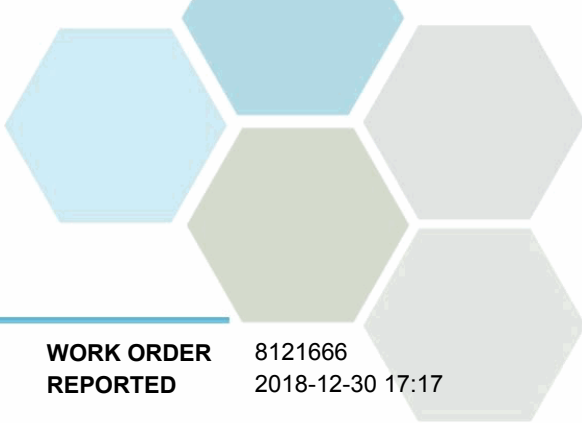
MW3D (8121666-03) | Matrix: Water | Sampled: 2018-12-17 13:00

<i>Anions</i>					
Chloride	2.59	0.10	mg/L	2018-12-21	
Fluoride	0.10	0.10	mg/L	2018-12-21	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Sulfate	19.3	1.0	mg/L	2018-12-21	

<i>BCMOE Aggregate Hydrocarbons</i>					
EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	75	60-140	%	2018-12-21	

<i>Calculated Parameters</i>					
Hardness, Total (as CaCO3)	93.1	0.500	mg/L	N/A	

<i>Dissolved Metals</i>					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	0.00147	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0214	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0255	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	28.9	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

MW3D (8121666-03) | Matrix: Water | Sampled: 2018-12-17 13:00, Continued

Dissolved Metals, Continued

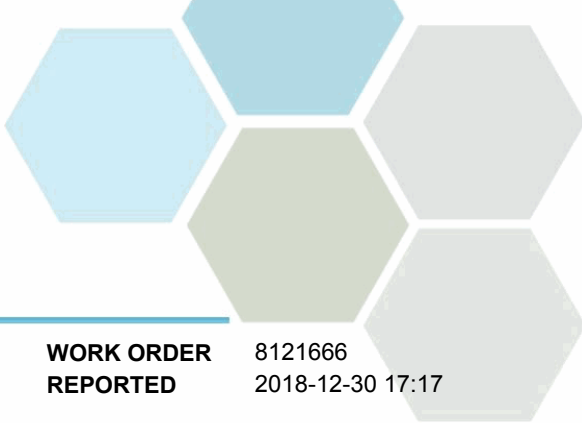
Cobalt, dissolved	0.00037	0.00010	mg/L	2018-12-24	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-12-24	
Iron, dissolved	0.152	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	5.05	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.348	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00598	0.00010	mg/L	2018-12-24	
Nickel, dissolved	0.00091	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	0.127	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.57	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	6.6	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	9.72	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.192	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	6.1	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000636	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	107	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	107	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Colour, True	6.1	5.0	CU	2018-12-21	HT1
Conductivity (EC)	255	2.0	µS/cm	2018-12-24	
pH	7.33	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	7.6	2.0	mg/L	2018-12-21	
Turbidity	4.60	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
--------------	---------	-------	------	------------	--



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

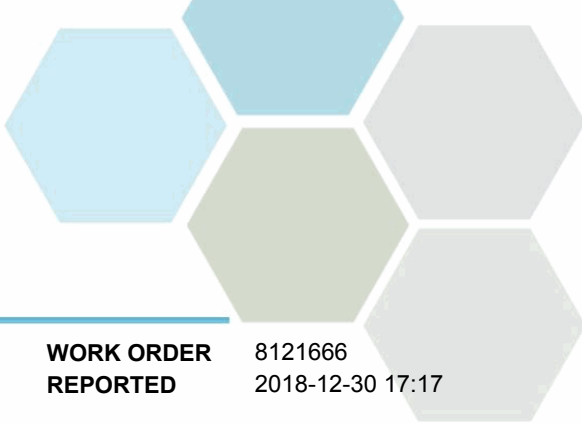
MW3D (8121666-03) | Matrix: Water | Sampled: 2018-12-17 13:00, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	0.257	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	87	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	64	50-140	%	2018-12-22	
Surrogate: Perylene-d12	101	50-140	%	2018-12-22	

Total Metals

Aluminum, total	0.0843	0.0050	mg/L	2018-12-23	
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	0.00164	0.00050	mg/L	2018-12-23	
Barium, total	0.0235	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0242	0.0050	mg/L	2018-12-23	
Cadmium, total	0.000101	0.000010	mg/L	2018-12-23	
Calcium, total	35.2	0.20	mg/L	2018-12-23	
Chromium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Cobalt, total	0.00044	0.00010	mg/L	2018-12-23	
Copper, total	< 0.00040	0.00040	mg/L	2018-12-23	
Iron, total	0.234	0.010	mg/L	2018-12-23	
Lead, total	< 0.00020	0.00020	mg/L	2018-12-23	
Lithium, total	0.00012	0.00010	mg/L	2018-12-23	
Magnesium, total	5.71	0.010	mg/L	2018-12-23	
Manganese, total	0.361	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
MW3D (8121666-03) Matrix: Water Sampled: 2018-12-17 13:00, Continued					
<i>Total Metals, Continued</i>					
Molybdenum, total	0.00750	0.00010	mg/L	2018-12-23	
Nickel, total	0.00164	0.00040	mg/L	2018-12-23	
Phosphorus, total	0.134	0.050	mg/L	2018-12-23	
Potassium, total	0.73	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	7.5	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	12.1	0.10	mg/L	2018-12-23	
Strontium, total	0.196	0.0010	mg/L	2018-12-23	
Sulfur, total	7.2	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	< 0.000020	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	< 0.00020	0.00020	mg/L	2018-12-23	
Titanium, total	< 0.0050	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.000709	0.000020	mg/L	2018-12-23	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-12-23	
Zinc, total	< 0.0040	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00023	0.00010	mg/L	2018-12-23	

MW2 (8121666-04) | Matrix: Water | Sampled: 2018-12-17 13:30

Anions

Chloride	5.76	0.10	mg/L	2018-12-21	
Fluoride	< 0.10	0.10	mg/L	2018-12-21	
Nitrate (as N)	0.010	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Sulfate	16.4	1.0	mg/L	2018-12-21	

BCMOE Aggregate Hydrocarbons

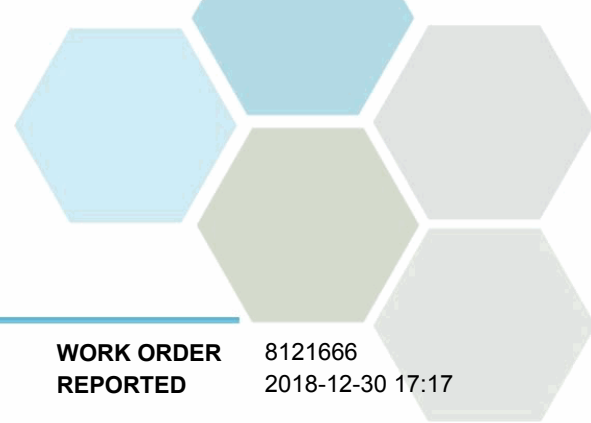
EPHw10-19	< 250	250	µg/L	2018-12-21	S09
EPHw19-32	< 250	250	µg/L	2018-12-21	S09
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	59	60-140	%	2018-12-21	S09

Calculated Parameters

Hardness, Total (as CaCO3)	116	0.500	mg/L	N/A	
----------------------------	-----	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	0.0140	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

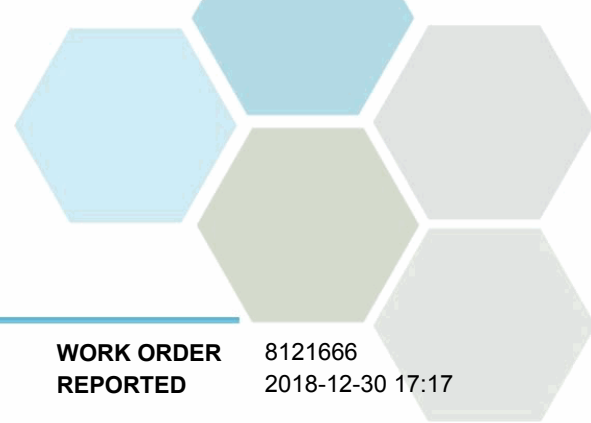
MW2 (8121666-04) | Matrix: Water | Sampled: 2018-12-17 13:30, Continued

Dissolved Metals, Continued

Arsenic, dissolved	0.00219	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0313	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0259	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	35.0	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	0.00036	0.00010	mg/L	2018-12-24	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-12-24	
Iron, dissolved	0.310	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	6.86	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.516	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00396	0.00010	mg/L	2018-12-24	
Nickel, dissolved	0.00074	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	0.163	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.66	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	7.2	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	8.97	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.171	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	4.9	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000803	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	128	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	128	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

MW2 (8121666-04) | Matrix: Water | Sampled: 2018-12-17 13:30, Continued

General Parameters, Continued

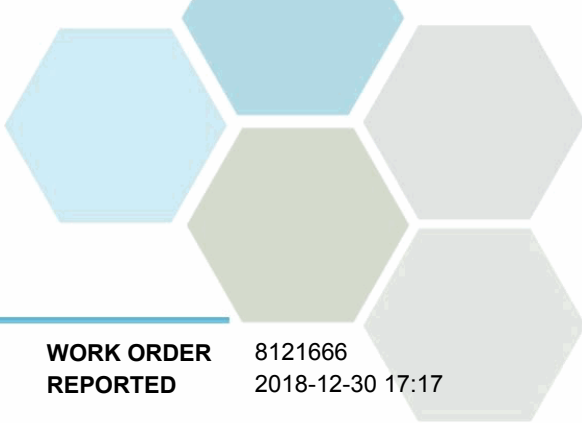
Colour, True	8.6	5.0	CU	2018-12-21	HT1
Conductivity (EC)	298	2.0	µS/cm	2018-12-24	
pH	7.42	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	20.8	2.0	mg/L	2018-12-21	
Turbidity	17.4	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	0.166	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	73	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	58	50-140	%	2018-12-22	
Surrogate: Perylene-d12	81	50-140	%	2018-12-22	

Total Metals

Aluminum, total	0.445	0.0050	mg/L	2018-12-23	
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	0.00231	0.00050	mg/L	2018-12-23	
Barium, total	0.0370	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0249	0.0050	mg/L	2018-12-23	
Cadmium, total	0.000045	0.000010	mg/L	2018-12-23	
Calcium, total	42.0	0.20	mg/L	2018-12-23	
Chromium, total	0.00082	0.00050	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
MW2 (8121666-04) Matrix: Water Sampled: 2018-12-17 13:30, Continued					
<i>Total Metals, Continued</i>					
Cobalt, total	0.00074	0.00010	mg/L	2018-12-23	
Copper, total	0.00076	0.00040	mg/L	2018-12-23	
Iron, total	1.02	0.010	mg/L	2018-12-23	
Lead, total	0.00062	0.00020	mg/L	2018-12-23	
Lithium, total	0.00016	0.00010	mg/L	2018-12-23	
Magnesium, total	8.97	0.010	mg/L	2018-12-23	
Manganese, total	0.520	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00497	0.00010	mg/L	2018-12-23	
Nickel, total	0.00172	0.00040	mg/L	2018-12-23	
Phosphorus, total	0.233	0.050	mg/L	2018-12-23	
Potassium, total	0.86	0.10	mg/L	2018-12-23	
Selenium, total	< 0.000050	0.000050	mg/L	2018-12-23	
Silicon, total	8.7	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	11.2	0.10	mg/L	2018-12-23	
Strontium, total	0.167	0.0010	mg/L	2018-12-23	
Sulfur, total	7.2	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.000050	0.000050	mg/L	2018-12-23	
Thallium, total	0.000026	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	< 0.00020	0.00020	mg/L	2018-12-23	
Titanium, total	0.0231	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.000861	0.000020	mg/L	2018-12-23	
Vanadium, total	0.0018	0.0010	mg/L	2018-12-23	
Zinc, total	0.0048	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00017	0.00010	mg/L	2018-12-23	

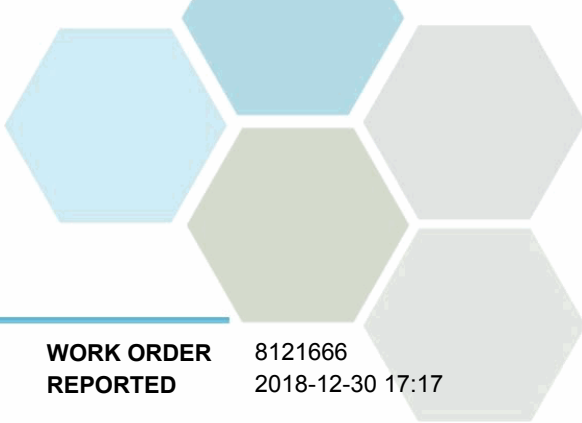
SB1 (8121666-05) | Matrix: Water | Sampled: 2018-12-17 10:45

Anions

Chloride	4.95	0.10	mg/L	2018-12-21	
Fluoride	< 0.10	0.10	mg/L	2018-12-21	
Nitrate (as N)	0.252	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Sulfate	43.8	1.0	mg/L	2018-12-21	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SB1 (8121666-05) | Matrix: Water | Sampled: 2018-12-17 10:45, Continued

BCMOE Aggregate Hydrocarbons, Continued

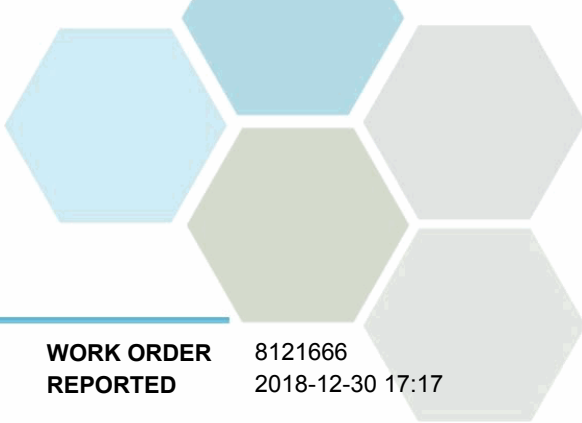
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	70	60-140	%	2018-12-21	

Calculated Parameters

Hardness, Total (as CaCO3)	92.0	0.500	mg/L	N/A	
----------------------------	------	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	0.0054	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0059	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0092	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	0.000011	0.000010	mg/L	2018-12-24	
Calcium, dissolved	31.3	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	0.00018	0.00010	mg/L	2018-12-24	
Copper, dissolved	0.00063	0.00040	mg/L	2018-12-24	
Iron, dissolved	< 0.010	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	3.31	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.00082	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Nickel, dissolved	0.00418	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.33	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	3.7	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	4.17	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.0889	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	15.0	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000190	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	

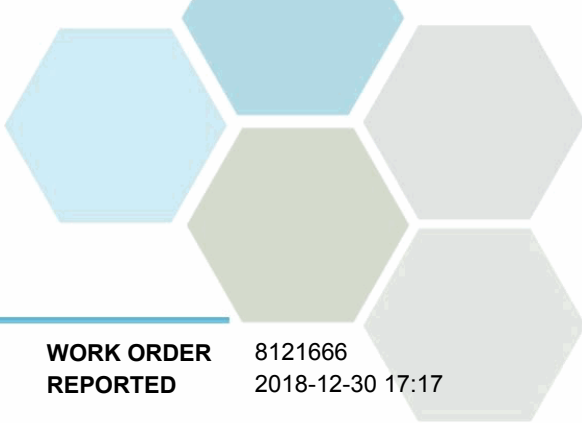


TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8121666-05) Matrix: Water Sampled: 2018-12-17 10:45, Continued					
<i>Dissolved Metals, Continued</i>					
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
<i>General Parameters</i>					
Alkalinity, Total (as CaCO3)	64.4	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	64.4	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Colour, True	< 5.0	5.0	CU	2018-12-21	HT1
Conductivity (EC)	240	2.0	µS/cm	2018-12-24	
pH	6.56	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	101	2.0	mg/L	2018-12-21	
Turbidity	73.4	0.10	NTU	2018-12-21	HT1
<i>Polycyclic Aromatic Hydrocarbons (PAH)</i>					
Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	< 0.050	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	71	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	77	50-140	%	2018-12-22	
Surrogate: Perylene-d12	106	50-140	%	2018-12-22	
<i>Total Metals</i>					
Aluminum, total	3.96	0.0050	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

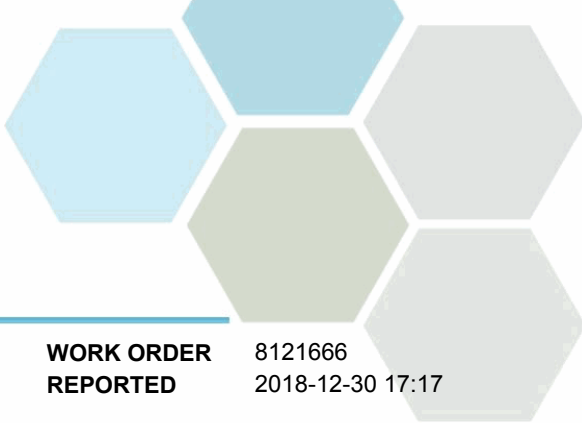
WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8121666-05) Matrix: Water Sampled: 2018-12-17 10:45, Continued					
<i>Total Metals, Continued</i>					
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-12-23	
Barium, total	0.0289	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0087	0.0050	mg/L	2018-12-23	
Cadmium, total	0.000017	0.000010	mg/L	2018-12-23	
Calcium, total	38.1	0.20	mg/L	2018-12-23	
Chromium, total	0.00452	0.00050	mg/L	2018-12-23	
Cobalt, total	0.00419	0.00010	mg/L	2018-12-23	
Copper, total	0.0102	0.00040	mg/L	2018-12-23	
Iron, total	4.54	0.010	mg/L	2018-12-23	
Lead, total	0.00389	0.00020	mg/L	2018-12-23	
Lithium, total	0.00121	0.00010	mg/L	2018-12-23	
Magnesium, total	4.78	0.010	mg/L	2018-12-23	
Manganese, total	0.115	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00044	0.00010	mg/L	2018-12-23	
Nickel, total	0.00872	0.00040	mg/L	2018-12-23	
Phosphorus, total	0.143	0.050	mg/L	2018-12-23	
Potassium, total	0.71	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	9.7	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	5.28	0.10	mg/L	2018-12-23	
Strontium, total	0.0926	0.0010	mg/L	2018-12-23	
Sulfur, total	16.2	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	< 0.000020	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	0.00031	0.00020	mg/L	2018-12-23	
Titanium, total	0.226	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.000347	0.000020	mg/L	2018-12-23	
Vanadium, total	0.0106	0.0010	mg/L	2018-12-23	
Zinc, total	0.0141	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00023	0.00010	mg/L	2018-12-23	

SB2 (8121666-06) | Matrix: Water | Sampled: 2018-12-17 11:00

Anions

Chloride	14.6	0.10	mg/L	2018-12-21	
----------	-------------	------	------	------------	--



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SB2 (8121666-06) | Matrix: Water | Sampled: 2018-12-17 11:00, Continued

Anions, Continued

Fluoride	< 0.10	0.10	mg/L	2018-12-21	
Nitrate (as N)	0.258	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Sulfate	45.4	1.0	mg/L	2018-12-21	

BCMOE Aggregate Hydrocarbons

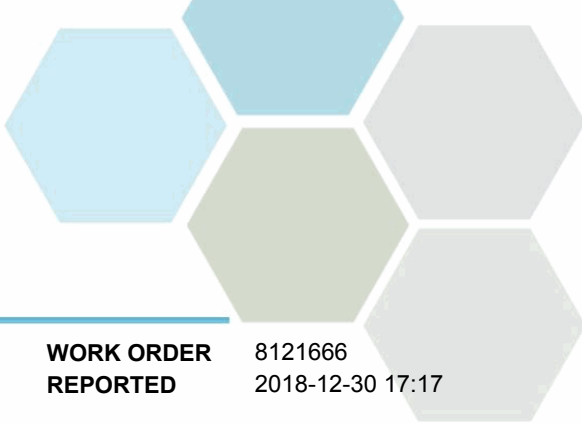
EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	75	60-140	%	2018-12-21	

Calculated Parameters

Hardness, Total (as CaCO3)	164	0.500	mg/L	N/A	
----------------------------	------------	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0060	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0184	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	53.4	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Copper, dissolved	0.00073	0.00040	mg/L	2018-12-24	
Iron, dissolved	< 0.010	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	0.00012	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	7.33	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.00081	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00028	0.00010	mg/L	2018-12-24	
Nickel, dissolved	0.00074	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.87	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	5.9	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	12.4	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.176	0.0010	mg/L	2018-12-24	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SB2 (8121666-06) | Matrix: Water | Sampled: 2018-12-17 11:00, Continued

Dissolved Metals, Continued

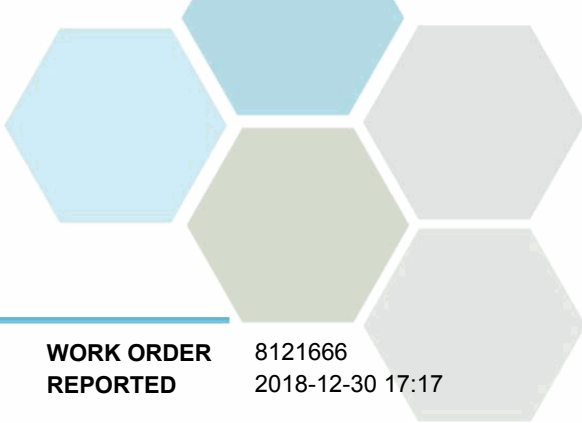
Sulfur, dissolved	15.3	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000846	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	153	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	153	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Colour, True	< 5.0	5.0	CU	2018-12-21	HT1
Conductivity (EC)	434	2.0	µS/cm	2018-12-24	
pH	6.61	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	29.3	2.0	mg/L	2018-12-21	
Turbidity	44.0	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	< 0.050	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

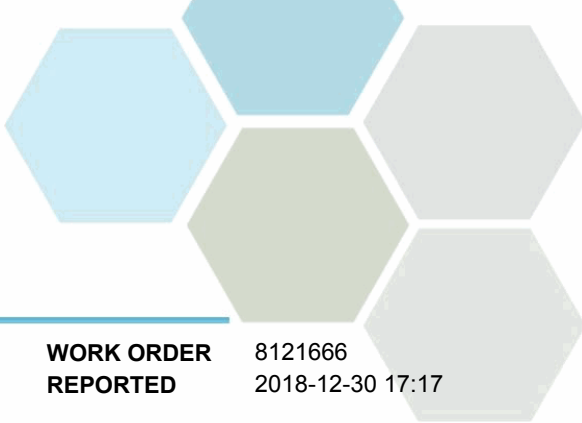
SB2 (8121666-06) | Matrix: Water | Sampled: 2018-12-17 11:00, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	86	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	96	50-140	%	2018-12-22	
Surrogate: Perylene-d12	108	50-140	%	2018-12-22	

Total Metals

Aluminum, total	2.01	0.0050	mg/L	2018-12-23	
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-12-23	
Barium, total	0.0165	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0183	0.0050	mg/L	2018-12-23	
Cadmium, total	< 0.000010	0.000010	mg/L	2018-12-23	
Calcium, total	66.1	0.20	mg/L	2018-12-23	
Chromium, total	0.00316	0.00050	mg/L	2018-12-23	
Cobalt, total	0.00160	0.00010	mg/L	2018-12-23	
Copper, total	0.00599	0.00040	mg/L	2018-12-23	
Iron, total	2.21	0.010	mg/L	2018-12-23	
Lead, total	0.00077	0.00020	mg/L	2018-12-23	
Lithium, total	0.00088	0.00010	mg/L	2018-12-23	
Magnesium, total	9.75	0.010	mg/L	2018-12-23	
Manganese, total	0.0590	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00068	0.00010	mg/L	2018-12-23	
Nickel, total	0.00366	0.00040	mg/L	2018-12-23	
Phosphorus, total	0.096	0.050	mg/L	2018-12-23	
Potassium, total	1.29	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	10.2	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	15.4	0.10	mg/L	2018-12-23	
Strontium, total	0.186	0.0010	mg/L	2018-12-23	
Sulfur, total	17.2	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	< 0.000020	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	< 0.00020	0.00020	mg/L	2018-12-23	
Titanium, total	0.119	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.000988	0.000020	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SB2 (8121666-06) | Matrix: Water | Sampled: 2018-12-17 11:00, Continued

Total Metals, Continued

Vanadium, total	0.0053	0.0010	mg/L	2018-12-23	
Zinc, total	0.0087	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00028	0.00010	mg/L	2018-12-23	

SB3 (8121666-07) | Matrix: Water | Sampled: 2018-12-17 11:15

Anions

Chloride	2.49	0.10	mg/L	2018-12-21	
Fluoride	< 0.10	0.10	mg/L	2018-12-21	
Nitrate (as N)	0.266	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-21	HT1
Sulfate	57.1	1.0	mg/L	2018-12-21	

BCMOE Aggregate Hydrocarbons

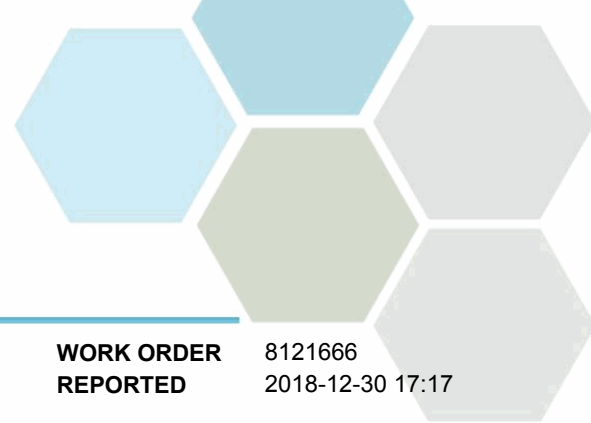
EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	77	60-140	%	2018-12-21	

Calculated Parameters

Hardness, Total (as CaCO3)	85.3	0.500	mg/L	N/A	
----------------------------	------	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	0.0088	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Barium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0135	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	27.0	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	0.00011	0.00010	mg/L	2018-12-24	
Copper, dissolved	0.00083	0.00040	mg/L	2018-12-24	
Iron, dissolved	< 0.010	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	4.29	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.00069	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00045	0.00010	mg/L	2018-12-24	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

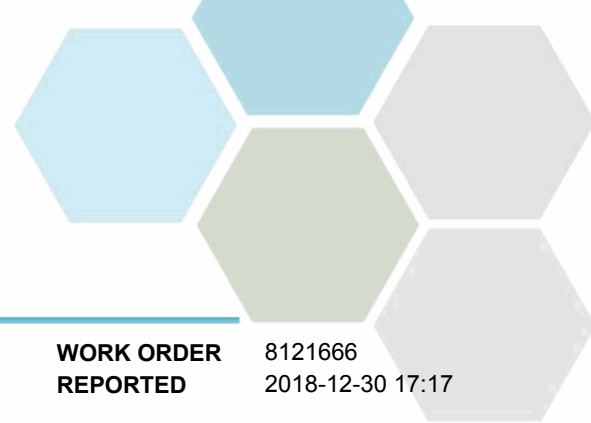
Analyte	Result	RL	Units	Analyzed	Qualifier
SB3 (8121666-07) Matrix: Water Sampled: 2018-12-17 11:15, Continued					
<i>Dissolved Metals, Continued</i>					
Nickel, dissolved	0.00082	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.40	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	4.1	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	4.20	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.0676	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	20.2	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000118	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	44.6	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	44.6	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Colour, True	< 5.0	5.0	CU	2018-12-21	HT1
Conductivity (EC)	231	2.0	µS/cm	2018-12-24	
pH	6.68	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	808	2.0	mg/L	2018-12-21	
Turbidity	663	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	< 0.050	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	0.015	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	0.017	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

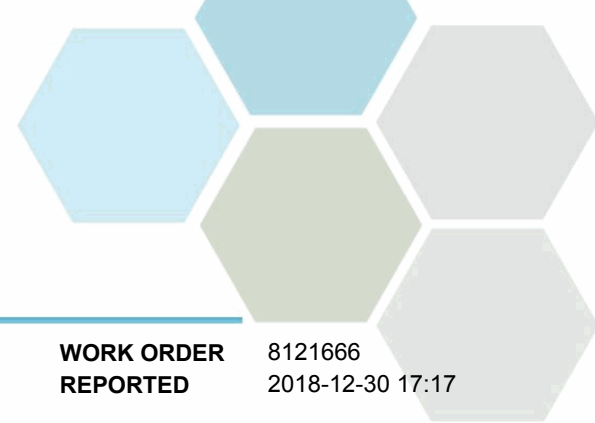
SB3 (8121666-07) | Matrix: Water | Sampled: 2018-12-17 11:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	82	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	89	50-140	%	2018-12-22	
Surrogate: Perylene-d12	96	50-140	%	2018-12-22	

Total Metals

Aluminum, total	34.4	0.0050	mg/L	2018-12-23	
Antimony, total	0.00027	0.00020	mg/L	2018-12-23	
Arsenic, total	0.00337	0.00050	mg/L	2018-12-23	
Barium, total	0.101	0.0050	mg/L	2018-12-23	
Beryllium, total	0.00045	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0187	0.0050	mg/L	2018-12-23	
Cadmium, total	0.000073	0.000010	mg/L	2018-12-23	
Calcium, total	45.3	0.20	mg/L	2018-12-23	
Chromium, total	0.0594	0.00050	mg/L	2018-12-23	
Cobalt, total	0.0405	0.00010	mg/L	2018-12-23	
Copper, total	0.0899	0.00040	mg/L	2018-12-23	
Iron, total	37.5	0.010	mg/L	2018-12-23	
Lead, total	0.0110	0.00020	mg/L	2018-12-23	
Lithium, total	0.0110	0.00010	mg/L	2018-12-23	
Magnesium, total	18.7	0.010	mg/L	2018-12-23	
Manganese, total	0.646	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00123	0.00010	mg/L	2018-12-23	
Nickel, total	0.0525	0.00040	mg/L	2018-12-23	
Phosphorus, total	1.05	0.050	mg/L	2018-12-23	
Potassium, total	2.10	0.10	mg/L	2018-12-23	
Selenium, total	0.00071	0.00050	mg/L	2018-12-23	
Silicon, total	47.4	1.0	mg/L	2018-12-23	
Silver, total	0.000080	0.000050	mg/L	2018-12-23	
Sodium, total	7.09	0.10	mg/L	2018-12-23	
Strontium, total	0.137	0.0010	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SB3 (8121666-07) | Matrix: Water | Sampled: 2018-12-17 11:15, Continued

Total Metals, Continued

Sulfur, total	22.9	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	0.000067	0.000020	mg/L	2018-12-23	
Thorium, total	0.00066	0.00010	mg/L	2018-12-23	
Tin, total	0.00077	0.00020	mg/L	2018-12-23	
Titanium, total	1.66	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.00111	0.000020	mg/L	2018-12-23	
Vanadium, total	0.0827	0.0010	mg/L	2018-12-23	
Zinc, total	0.0829	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00398	0.00010	mg/L	2018-12-23	

LE-1 (8121666-08) | Matrix: Water | Sampled: 2018-12-17 14:30

Anions

Chloride	3290	0.10	mg/L	2018-12-21	
Fluoride	< 1.00	0.10	mg/L	2018-12-21	RA1
Nitrate (as N)	1.75	0.010	mg/L	2018-12-21	HT1
Nitrite (as N)	< 0.100	0.010	mg/L	2018-12-21	HT1, RA1
Sulfate	1640	1.0	mg/L	2018-12-21	

BCMOE Aggregate Hydrocarbons

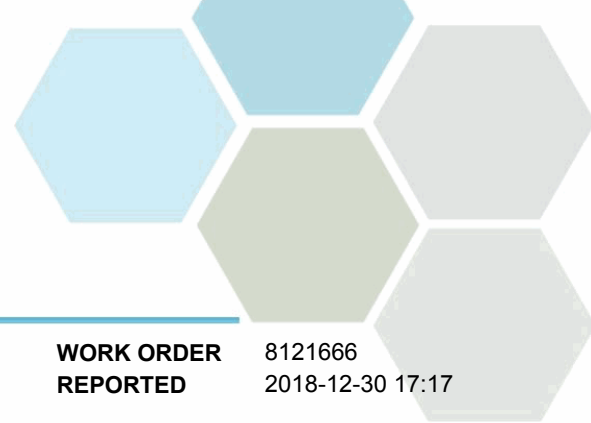
EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	75	60-140	%	2018-12-21	

Calculated Parameters

Hardness, Total (as CaCO3)	3070	0.500	mg/L	N/A	
----------------------------	------	-------	------	-----	--

Dissolved Metals

Aluminum, dissolved	0.0092	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0331	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.323	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	0.000409	0.000010	mg/L	2018-12-24	
Calcium, dissolved	840	0.20	mg/L	2018-12-24	
Chromium, dissolved	0.00068	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	0.00141	0.00010	mg/L	2018-12-24	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

LE-1 (8121666-08) | Matrix: Water | Sampled: 2018-12-17 14:30, Continued

Dissolved Metals, Continued

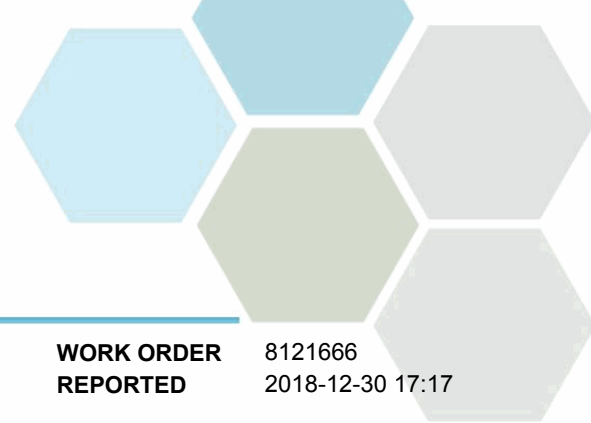
Copper, dissolved	0.00197	0.00040	mg/L	2018-12-24	
Iron, dissolved	< 0.010	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	0.00025	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	236	0.010	mg/L	2018-12-24	
Manganese, dissolved	10.4	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00021	0.00010	mg/L	2018-12-24	
Nickel, dissolved	0.00568	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-12-24	
Potassium, dissolved	28.6	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	6.1	1.0	mg/L	2018-12-24	
Silver, dissolved	0.000065	0.000050	mg/L	2018-12-24	
Sodium, dissolved	1750	0.10	mg/L	2018-12-24	
Strontium, dissolved	4.50	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	754	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000069	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	0.0462	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	30.4	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	30.4	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Colour, True	< 5.0	5.0	CU	2018-12-21	HT1
Conductivity (EC)	12600	2.0	µS/cm	2018-12-24	
pH	6.81	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-12-21	
Turbidity	0.23	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

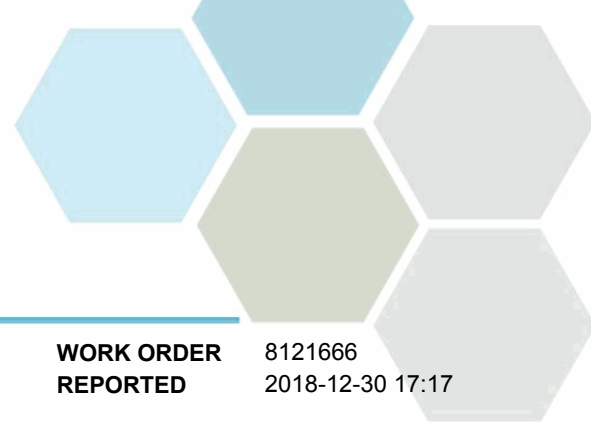
LE-1 (8121666-08) | Matrix: Water | Sampled: 2018-12-17 14:30, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Acridine	0.139	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	0.277	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	0.175	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	0.383	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	0.151	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	0.201	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	0.311	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	0.134	0.010	µg/L	2018-12-22	
Fluoranthene	0.093	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	0.123	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	0.109	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	82	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	89	50-140	%	2018-12-22	
Surrogate: Perylene-d12	97	50-140	%	2018-12-22	

Total Metals

Aluminum, total	0.0295	0.0050	mg/L	2018-12-23	
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-12-23	
Barium, total	0.0343	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.294	0.0050	mg/L	2018-12-23	
Cadmium, total	0.000439	0.000010	mg/L	2018-12-23	
Calcium, total	873	0.20	mg/L	2018-12-23	
Chromium, total	0.00061	0.00050	mg/L	2018-12-23	
Cobalt, total	0.00143	0.00010	mg/L	2018-12-23	
Copper, total	0.00221	0.00040	mg/L	2018-12-23	
Iron, total	0.012	0.010	mg/L	2018-12-23	
Lead, total	< 0.00020	0.00020	mg/L	2018-12-23	
Lithium, total	0.00035	0.00010	mg/L	2018-12-23	
Magnesium, total	253	0.010	mg/L	2018-12-23	
Manganese, total	12.7	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00041	0.00010	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
LE-1 (8121666-08) Matrix: Water Sampled: 2018-12-17 14:30, Continued					
<i>Total Metals, Continued</i>					
Nickel, total	0.00646	0.00040	mg/L	2018-12-23	
Phosphorus, total	< 0.050	0.050	mg/L	2018-12-23	
Potassium, total	30.7	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	6.5	1.0	mg/L	2018-12-23	
Silver, total	0.000052	0.000050	mg/L	2018-12-23	
Sodium, total	1760	0.10	mg/L	2018-12-23	
Strontium, total	4.28	0.0010	mg/L	2018-12-23	
Sulfur, total	769	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	0.000020	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	< 0.00020	0.00020	mg/L	2018-12-23	
Titanium, total	< 0.0050	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.000070	0.000020	mg/L	2018-12-23	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-12-23	
Zinc, total	0.0574	0.0040	mg/L	2018-12-23	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-12-23	

SW1 (8121666-09) | Matrix: Water | Sampled: 2018-12-17 13:15

Anions

Chloride	7.32	0.10	mg/L	2018-12-22	
Fluoride	< 0.10	0.10	mg/L	2018-12-22	
Nitrate (as N)	0.329	0.010	mg/L	2018-12-22	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-22	HT1
Sulfate	56.7	1.0	mg/L	2018-12-22	

BCMOE Aggregate Hydrocarbons

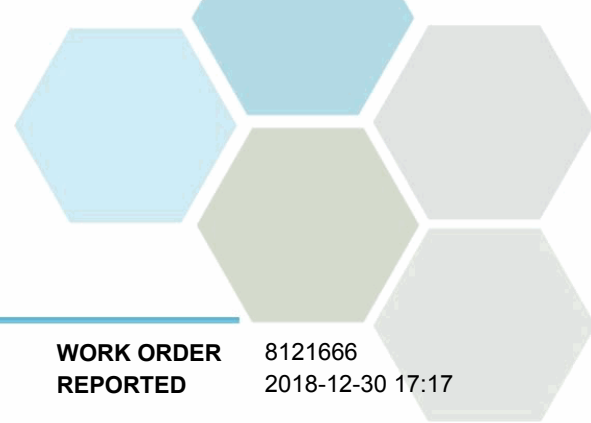
EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	71	60-140	%	2018-12-21	

Calculated Parameters

Chromium, Trivalent	< 0.00100	0.00100	mg/L	N/A	
Hardness, Total (as CaCO3)	110	0.500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Antimony, dissolved	0.00020	0.00020	mg/L	2018-12-24	



TEST RESULTS

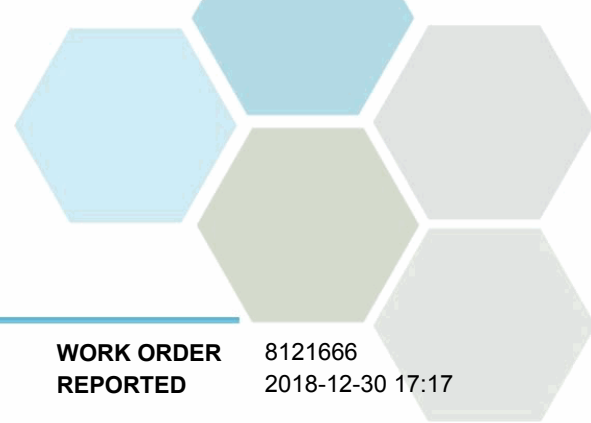
REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SW1 (8121666-09) Matrix: Water Sampled: 2018-12-17 13:15, Continued					
<i>Dissolved Metals, Continued</i>					
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Barium, dissolved	0.0060	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0177	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	35.5	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Copper, dissolved	0.00092	0.00040	mg/L	2018-12-24	
Iron, dissolved	< 0.010	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	0.00011	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	5.21	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.00182	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00038	0.00010	mg/L	2018-12-24	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.54	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	4.4	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	6.23	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.102	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	19.7	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Uranium, dissolved	0.000398	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	67.3	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	67.3	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SW1 (8121666-09) | Matrix: Water | Sampled: 2018-12-17 13:15, Continued

General Parameters, Continued

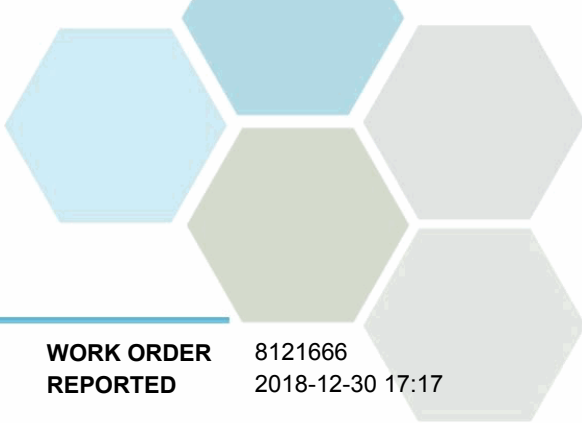
Chromium, Hexavalent	< 0.0010	0.0010	mg/L	2018-12-27	
Colour, True	< 5.0	5.0	CU	2018-12-21	HT1
Conductivity (EC)	286	2.0	µS/cm	2018-12-24	
pH	7.26	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-12-21	
Turbidity	2.41	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	< 0.050	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	88	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	90	50-140	%	2018-12-22	
Surrogate: Perylene-d12	95	50-140	%	2018-12-22	

Total Metals

Aluminum, total	0.0850	0.0050	mg/L	2018-12-23	
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-12-23	
Barium, total	0.0076	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0164	0.0050	mg/L	2018-12-23	
Cadmium, total	< 0.000010	0.000010	mg/L	2018-12-23	
Calcium, total	41.9	0.20	mg/L	2018-12-23	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SW1 (8121666-09) Matrix: Water Sampled: 2018-12-17 13:15, Continued					
<i>Total Metals, Continued</i>					
Chromium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Cobalt, total	< 0.00010	0.00010	mg/L	2018-12-23	
Copper, total	0.00133	0.00040	mg/L	2018-12-23	
Iron, total	0.095	0.010	mg/L	2018-12-23	
Lead, total	< 0.00020	0.00020	mg/L	2018-12-23	
Lithium, total	0.00032	0.00010	mg/L	2018-12-23	
Magnesium, total	5.73	0.010	mg/L	2018-12-23	
Manganese, total	0.00501	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	0.00079	0.00010	mg/L	2018-12-23	
Nickel, total	0.00082	0.00040	mg/L	2018-12-23	
Phosphorus, total	< 0.050	0.050	mg/L	2018-12-23	
Potassium, total	0.70	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	5.2	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	7.80	0.10	mg/L	2018-12-23	
Strontium, total	0.107	0.0010	mg/L	2018-12-23	
Sulfur, total	25.5	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	< 0.000020	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	< 0.00020	0.00020	mg/L	2018-12-23	
Titanium, total	< 0.0050	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	0.000436	0.000020	mg/L	2018-12-23	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-12-23	
Zinc, total	< 0.0040	0.0040	mg/L	2018-12-23	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-12-23	

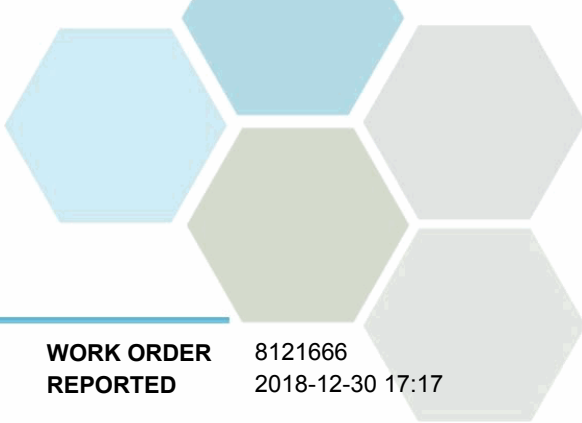
SW2 (8121666-10) | Matrix: Water | Sampled: 2018-12-17 11:45

Anions

Chloride	1.44	0.10	mg/L	2018-12-22	
Fluoride	< 0.10	0.10	mg/L	2018-12-22	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-12-22	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-12-22	HT1
Sulfate	2.3	1.0	mg/L	2018-12-22	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-12-21	
EPHw19-32	< 250	250	µg/L	2018-12-21	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SW2 (8121666-10) | Matrix: Water | Sampled: 2018-12-17 11:45, Continued

BCMOE Aggregate Hydrocarbons, Continued

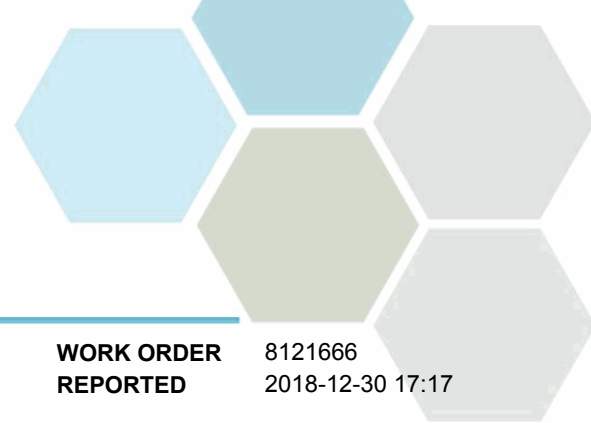
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	101	60-140	%	2018-12-21	

Calculated Parameters

Chromium, Trivalent	< 0.00100	0.00100	mg/L	N/A	
Hardness, Total (as CaCO3)	6.15	0.500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	0.0759	0.0050	mg/L	2018-12-24	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Barium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Boron, dissolved	0.0061	0.0050	mg/L	2018-12-24	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-12-24	
Calcium, dissolved	1.80	0.20	mg/L	2018-12-24	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Copper, dissolved	0.00053	0.00040	mg/L	2018-12-24	
Iron, dissolved	0.013	0.010	mg/L	2018-12-24	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Magnesium, dissolved	0.399	0.010	mg/L	2018-12-24	
Manganese, dissolved	0.00459	0.00020	mg/L	2018-12-24	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, dissolved	0.00019	0.00010	mg/L	2018-12-24	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2018-12-24	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-12-24	
Potassium, dissolved	0.13	0.10	mg/L	2018-12-24	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Silicon, dissolved	2.2	1.0	mg/L	2018-12-24	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-12-24	
Sodium, dissolved	1.16	0.10	mg/L	2018-12-24	
Strontium, dissolved	0.0086	0.0010	mg/L	2018-12-24	
Sulfur, dissolved	< 3.0	3.0	mg/L	2018-12-24	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-12-24	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-12-24	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-12-24	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	



TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

SW2 (8121666-10) | Matrix: Water | Sampled: 2018-12-17 11:45, Continued

Dissolved Metals, Continued

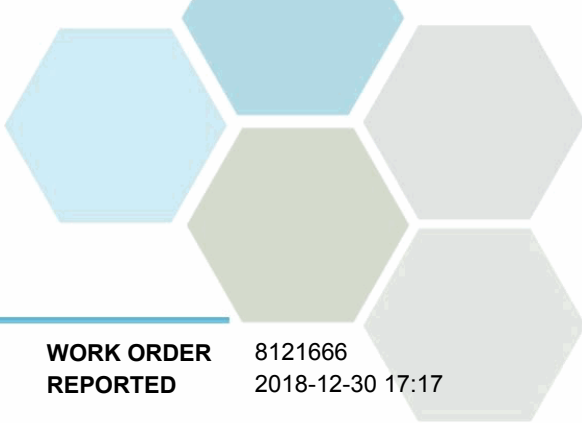
Uranium, dissolved	< 0.000020	0.000020	mg/L	2018-12-24	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-12-24	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-12-24	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-12-24	

General Parameters

Alkalinity, Total (as CaCO3)	3.8	1.0	mg/L	2018-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Bicarbonate (as CaCO3)	3.8	1.0	mg/L	2018-12-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-12-21	
Chromium, Hexavalent	< 0.0010	0.0010	mg/L	2018-12-27	
Colour, True	9.2	5.0	CU	2018-12-21	HT1
Conductivity (EC)	21.2	2.0	µS/cm	2018-12-24	
pH	6.09	0.10	pH units	2018-12-27	HT2
Solids, Total Suspended	16.2	2.0	mg/L	2018-12-21	
Turbidity	14.1	0.10	NTU	2018-12-21	HT1

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-12-22	
Acenaphthylene	< 0.200	0.200	µg/L	2018-12-22	
Acridine	< 0.050	0.050	µg/L	2018-12-22	
Anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-12-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-12-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-12-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Chrysene	< 0.050	0.050	µg/L	2018-12-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-12-22	
Fluoranthene	< 0.030	0.030	µg/L	2018-12-22	
Fluorene	< 0.050	0.050	µg/L	2018-12-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-12-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-12-22	
Naphthalene	< 0.200	0.200	µg/L	2018-12-22	
Phenanthrene	< 0.100	0.100	µg/L	2018-12-22	
Pyrene	< 0.020	0.020	µg/L	2018-12-22	
Quinoline	< 0.050	0.050	µg/L	2018-12-22	
Surrogate: Acridine-d9	58	50-140	%	2018-12-22	
Surrogate: Naphthalene-d8	53	50-140	%	2018-12-22	
Surrogate: Perylene-d12	79	50-140	%	2018-12-22	

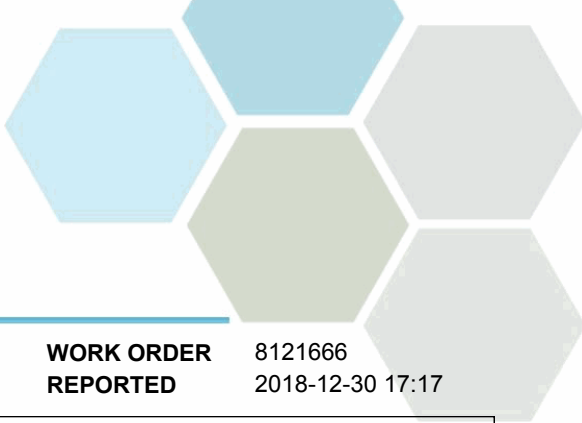


TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SW2 (8121666-10) Matrix: Water Sampled: 2018-12-17 11:45, Continued					
<i>Total Metals</i>					
Aluminum, total	0.201	0.0050	mg/L	2018-12-23	
Antimony, total	< 0.00020	0.00020	mg/L	2018-12-23	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-12-23	
Barium, total	< 0.0050	0.0050	mg/L	2018-12-23	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-12-23	
Boron, total	0.0057	0.0050	mg/L	2018-12-23	
Cadmium, total	< 0.000010	0.000010	mg/L	2018-12-23	
Calcium, total	2.09	0.20	mg/L	2018-12-23	
Chromium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Cobalt, total	0.00016	0.00010	mg/L	2018-12-23	
Copper, total	0.00082	0.00040	mg/L	2018-12-23	
Iron, total	0.115	0.010	mg/L	2018-12-23	
Lead, total	< 0.00020	0.00020	mg/L	2018-12-23	
Lithium, total	0.00020	0.00010	mg/L	2018-12-23	
Magnesium, total	0.487	0.010	mg/L	2018-12-23	
Manganese, total	0.00720	0.00020	mg/L	2018-12-23	
Mercury, total	< 0.000010	0.000010	mg/L	2018-12-21	
Molybdenum, total	< 0.00010	0.00010	mg/L	2018-12-23	
Nickel, total	0.00077	0.00040	mg/L	2018-12-23	
Phosphorus, total	< 0.050	0.050	mg/L	2018-12-23	
Potassium, total	0.25	0.10	mg/L	2018-12-23	
Selenium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Silicon, total	3.0	1.0	mg/L	2018-12-23	
Silver, total	< 0.000050	0.000050	mg/L	2018-12-23	
Sodium, total	1.47	0.10	mg/L	2018-12-23	
Strontium, total	0.0091	0.0010	mg/L	2018-12-23	
Sulfur, total	3.6	3.0	mg/L	2018-12-23	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-12-23	
Thallium, total	< 0.000020	0.000020	mg/L	2018-12-23	
Thorium, total	< 0.00010	0.00010	mg/L	2018-12-23	
Tin, total	< 0.00020	0.00020	mg/L	2018-12-23	
Titanium, total	0.0061	0.0050	mg/L	2018-12-23	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-12-23	
Uranium, total	< 0.000020	0.000020	mg/L	2018-12-23	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-12-23	
Zinc, total	< 0.0040	0.0040	mg/L	2018-12-23	
Zirconium, total	0.00014	0.00010	mg/L	2018-12-23	



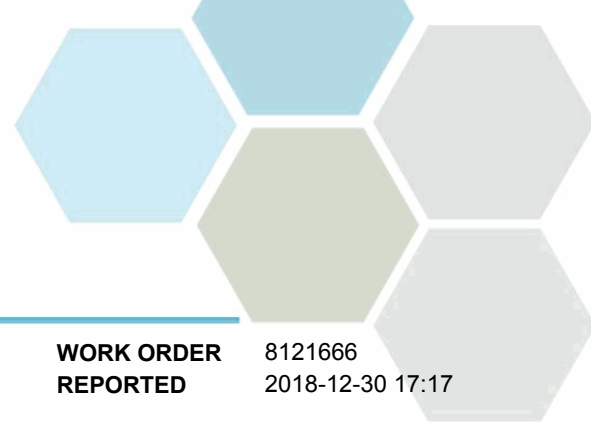
TEST RESULTS

REPORTED TO Allterra Construction
PROJECT P17-932

WORK ORDER 8121666
REPORTED 2018-12-30 17:17

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- 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.
- S09 The surrogate recovery for this sample is outside of established control limits .



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analysis Description	Method Ref.	Technique	Location
Alkalinity in Water	SM 2320 B* (2011)	Titration with H2SO4	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*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 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	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Turbidity in Water	SM 2130 B (2011)	Nephelometry	Richmond

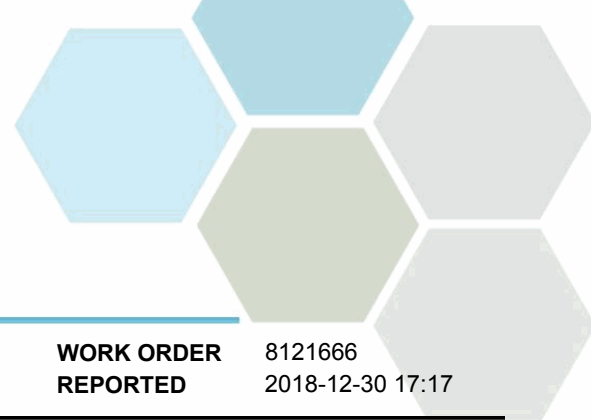
Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

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

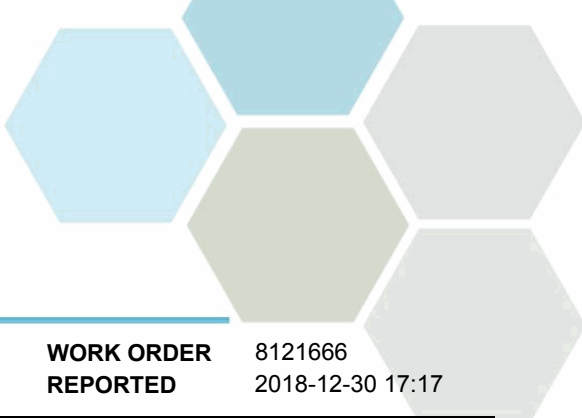
WORK ORDER REPORTED 8121666
2018-12-30 17:17

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 B8L1675									
Blank (B8L1675-BLK1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.010	0.010 mg/L							
Nitrite (as N)	< 0.010	0.010 mg/L							
Sulfate	< 1.0	1.0 mg/L							
Blank (B8L1675-BLK2)			Prepared: 2018-12-22, Analyzed: 2018-12-22						
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 (B8L1675-BS1)			Prepared: 2018-12-22, Analyzed: 2018-12-22						
Chloride	15.8	0.10 mg/L	16.0		99	90-110			
Fluoride	4.04	0.10 mg/L	4.00		101	88-108			
Nitrate (as N)	4.00	0.010 mg/L	4.00		100	93-108			
Nitrite (as N)	1.98	0.010 mg/L	2.00		99	85-114			
Sulfate	15.8	1.0 mg/L	16.0		99	91-109			
LCS (B8L1675-BS2)			Prepared: 2018-12-22, Analyzed: 2018-12-22						
Chloride	15.5	0.10 mg/L	16.0		97	90-110			
Fluoride	3.57	0.10 mg/L	4.00		89	88-108			
Nitrate (as N)	3.95	0.010 mg/L	4.00		99	93-108			
Nitrite (as N)	1.95	0.010 mg/L	2.00		98	85-114			
Sulfate	15.6	1.0 mg/L	16.0		97	91-109			
BCMOE Aggregate Hydrocarbons, Batch B8L1640									
Blank (B8L1640-BLK1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	273	µg/L	444		62	60-140			



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

BCMOE Aggregate Hydrocarbons, Batch B8L1640, Continued

LCS (B8L1640-BS2)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
EPHw10-19	13400	250 µg/L	15400	87	70-130				
EPHw19-32	15600	250 µg/L	22200	70	70-130				
Surrogate: 2-Methylnonane (EPH/F2-4)	359	µg/L	444	81	60-140				

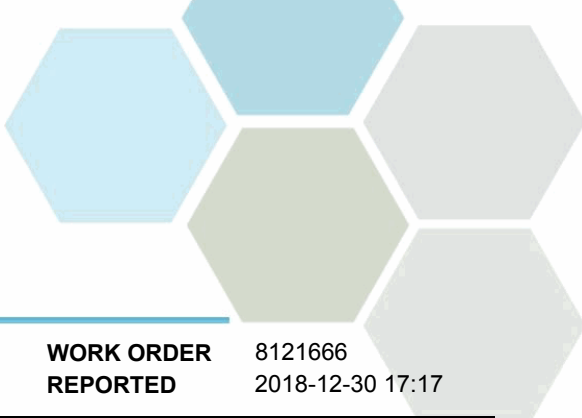
Dissolved Metals, Batch B8L1605

Blank (B8L1605-BLK1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Mercury, dissolved	< 0.000010	0.000010 mg/L							
Reference (B8L1605-SRM1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Mercury, dissolved	0.00432	0.000010 mg/L	0.00489	88	80-120				

Dissolved Metals, Batch B8L1658

Blank (B8L1658-BLK1)			Prepared: 2018-12-24, Analyzed: 2018-12-24						
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							

Blank (B8L1658-BLK2)			Prepared: 2018-12-24, Analyzed: 2018-12-24						
Aluminum, dissolved	< 0.0050	0.0050 mg/L							



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

Dissolved Metals, Batch B8L1658, Continued

Blank (B8L1658-BLK2), Continued

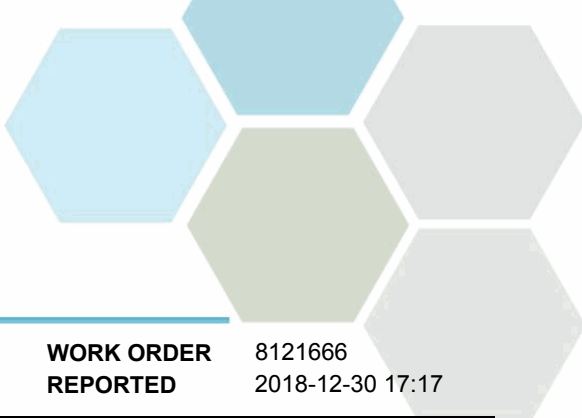
Prepared: 2018-12-24, Analyzed: 2018-12-24

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							

Blank (B8L1658-BLK3)

Prepared: 2018-12-24, Analyzed: 2018-12-24

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							



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

Dissolved Metals, Batch B8L1658, Continued

Blank (B8L1658-BLK3), Continued

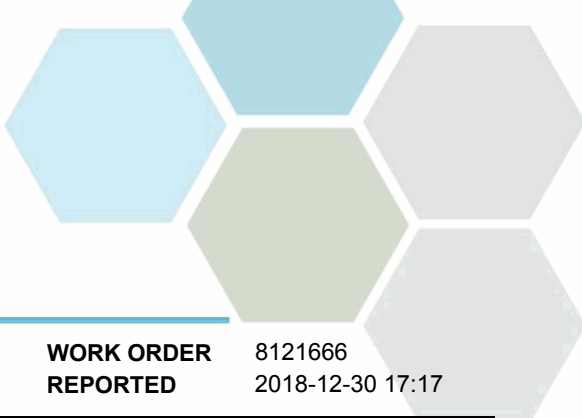
Prepared: 2018-12-24, Analyzed: 2018-12-24

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

Blank (B8L1658-BLK4)

Prepared: 2018-12-24, Analyzed: 2018-12-24

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



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

Dissolved Metals, Batch B8L1658, Continued

Blank (B8L1658-BLK4), Continued

Prepared: 2018-12-24, Analyzed: 2018-12-24

Zinc, dissolved	< 0.0040	0.0040 mg/L							
Zirconium, dissolved	< 0.00010	0.00010 mg/L							

LCS (B8L1658-BS1)

Prepared: 2018-12-24, Analyzed: 2018-12-24

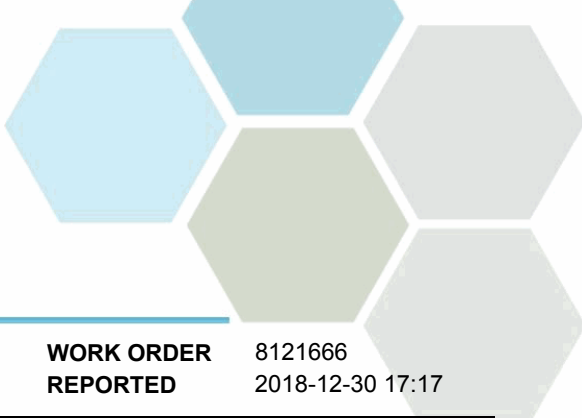
Aluminum, dissolved	0.0220	0.0050 mg/L	0.0200		110	80-120			
Antimony, dissolved	0.0202	0.00020 mg/L	0.0200		101	80-120			
Arsenic, dissolved	0.0216	0.00050 mg/L	0.0200		108	80-120			
Barium, dissolved	0.0192	0.0050 mg/L	0.0200		96	80-120			
Beryllium, dissolved	0.0211	0.00010 mg/L	0.0200		105	80-120			
Bismuth, dissolved	0.0209	0.00010 mg/L	0.0200		104	80-120			
Boron, dissolved	0.0207	0.0050 mg/L	0.0200		103	80-120			
Cadmium, dissolved	0.0209	0.000010 mg/L	0.0200		105	80-120			
Calcium, dissolved	1.77	0.20 mg/L	2.00		88	80-120			
Chromium, dissolved	0.0202	0.00050 mg/L	0.0200		101	80-120			
Cobalt, dissolved	0.0206	0.00010 mg/L	0.0200		103	80-120			
Copper, dissolved	0.0211	0.00040 mg/L	0.0200		106	80-120			
Iron, dissolved	1.88	0.010 mg/L	2.00		94	80-120			
Lead, dissolved	0.0205	0.00020 mg/L	0.0200		103	80-120			
Lithium, dissolved	0.0205	0.00010 mg/L	0.0200		103	80-120			
Magnesium, dissolved	1.93	0.010 mg/L	2.00		96	80-120			
Manganese, dissolved	0.0202	0.00020 mg/L	0.0200		101	80-120			
Molybdenum, dissolved	0.0192	0.00010 mg/L	0.0200		96	80-120			
Nickel, dissolved	0.0205	0.00040 mg/L	0.0200		103	80-120			
Phosphorus, dissolved	2.02	0.050 mg/L	2.00		101	80-120			
Potassium, dissolved	1.80	0.10 mg/L	2.00		90	80-120			
Selenium, dissolved	0.0220	0.00050 mg/L	0.0200		110	80-120			
Silicon, dissolved	2.1	1.0 mg/L	2.00		106	80-120			
Silver, dissolved	0.0203	0.000050 mg/L	0.0200		101	80-120			
Sodium, dissolved	1.92	0.10 mg/L	2.00		96	80-120			
Strontium, dissolved	0.0191	0.0010 mg/L	0.0200		95	80-120			
Sulfur, dissolved	4.8	3.0 mg/L	5.00		96	80-120			
Tellurium, dissolved	0.0228	0.00050 mg/L	0.0200		114	80-120			
Thallium, dissolved	0.0206	0.000020 mg/L	0.0200		103	80-120			
Thorium, dissolved	0.0195	0.00010 mg/L	0.0200		97	80-120			
Tin, dissolved	0.0201	0.00020 mg/L	0.0200		101	80-120			
Titanium, dissolved	0.0213	0.0050 mg/L	0.0200		106	80-120			
Tungsten, dissolved	0.0171	0.0010 mg/L	0.0200		85	80-120			
Uranium, dissolved	0.0201	0.000020 mg/L	0.0200		100	80-120			
Vanadium, dissolved	0.0197	0.0010 mg/L	0.0200		98	80-120			
Zinc, dissolved	0.0232	0.0040 mg/L	0.0200		116	80-120			
Zirconium, dissolved	0.0200	0.00010 mg/L	0.0200		100	80-120			

Duplicate (B8L1658-DUP1)

Source: 8121666-01

Prepared: 2018-12-24, Analyzed: 2018-12-24

Aluminum, dissolved	< 0.0050	0.0050 mg/L	< 0.0050					11	
Antimony, dissolved	0.00038	0.00020 mg/L	0.00035					20	
Arsenic, dissolved	0.00501	0.00050 mg/L	0.00508				1	8	
Barium, dissolved	0.0793	0.0050 mg/L	0.0820				3	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	0.0745	0.0050 mg/L	0.0737				1	13	
Cadmium, dissolved	< 0.000010	0.000010 mg/L	< 0.000010					20	
Calcium, dissolved	155	0.20 mg/L	156				< 1	8	
Chromium, dissolved	< 0.00050	0.00050 mg/L	< 0.00050					14	
Cobalt, dissolved	0.00201	0.00010 mg/L	0.00209				3	10	
Copper, dissolved	< 0.00040	0.00040 mg/L	< 0.00040					20	
Iron, dissolved	3.28	0.010 mg/L	3.37				3	14	



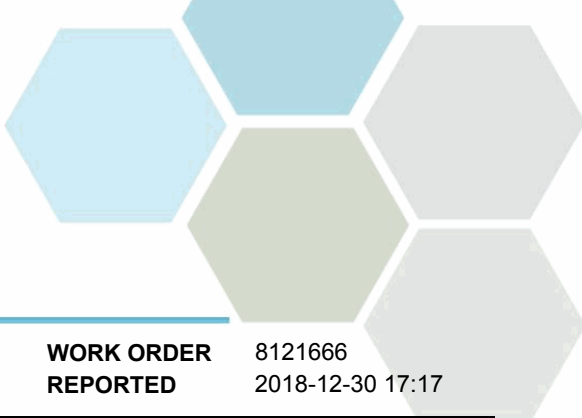
APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

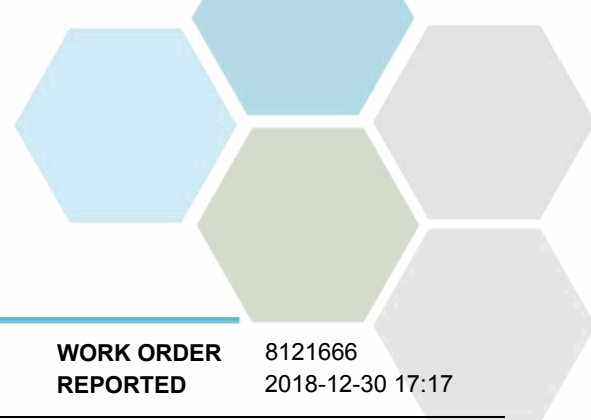
Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B8L1658, Continued									
Duplicate (B8L1658-DUP1), Continued			Source: 8121666-01		Prepared: 2018-12-24, Analyzed: 2018-12-24				
Lead, dissolved	< 0.00020	0.00020 mg/L		< 0.00020					20
Lithium, dissolved	0.0108	0.00010 mg/L		0.0108			< 1		14
Magnesium, dissolved	33.2	0.010 mg/L		34.2			3		6
Manganese, dissolved	2.22	0.00020 mg/L		2.28			3		9
Molybdenum, dissolved	0.00101	0.00010 mg/L		0.00114			13		19
Nickel, dissolved	0.00163	0.00040 mg/L		0.00166					20
Phosphorus, dissolved	< 0.050	0.050 mg/L		< 0.050					14
Potassium, dissolved	3.14	0.10 mg/L		3.24			3		8
Selenium, dissolved	< 0.00050	0.00050 mg/L		< 0.00050					20
Silicon, dissolved	12.5	1.0 mg/L		12.9			3		12
Silver, dissolved	< 0.000050	0.000050 mg/L		< 0.000050					20
Sodium, dissolved	51.5	0.10 mg/L		53.6			4		6
Strontium, dissolved	0.581	0.0010 mg/L		0.604			4		6
Sulfur, dissolved	19.8	3.0 mg/L		21.1			7		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	0.00635	0.000020 mg/L		0.00634			< 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 (B8L1658-SRM1)									
Prepared: 2018-12-24, Analyzed: 2018-12-24									
Aluminum, dissolved	0.231	0.0050 mg/L	0.233		99		79-114		
Antimony, dissolved	0.0466	0.00020 mg/L	0.0430		108		89-123		
Arsenic, dissolved	0.471	0.00050 mg/L	0.438		108		87-113		
Barium, dissolved	3.04	0.0050 mg/L	3.35		91		85-114		
Beryllium, dissolved	0.232	0.00010 mg/L	0.213		109		79-122		
Boron, dissolved	1.71	0.0050 mg/L	1.74		98		79-117		
Cadmium, dissolved	0.228	0.000010 mg/L	0.224		102		89-112		
Calcium, dissolved	6.87	0.20 mg/L	7.69		89		85-120		
Chromium, dissolved	0.434	0.00050 mg/L	0.437		99		87-113		
Cobalt, dissolved	0.129	0.00010 mg/L	0.128		101		90-117		
Copper, dissolved	0.846	0.00040 mg/L	0.844		100		90-115		
Iron, dissolved	1.23	0.010 mg/L	1.29		95		86-112		
Lead, dissolved	0.111	0.00020 mg/L	0.112		100		90-113		
Lithium, dissolved	0.105	0.00010 mg/L	0.104		101		77-127		
Magnesium, dissolved	6.32	0.010 mg/L	6.92		91		84-116		
Manganese, dissolved	0.345	0.00020 mg/L	0.345		100		85-113		
Molybdenum, dissolved	0.416	0.00010 mg/L	0.426		98		87-112		
Nickel, dissolved	0.862	0.00040 mg/L	0.840		103		90-114		
Phosphorus, dissolved	0.522	0.050 mg/L	0.495		105		74-119		
Potassium, dissolved	2.71	0.10 mg/L	3.19		85		78-119		
Selenium, dissolved	0.0375	0.00050 mg/L	0.0331		113		89-123		
Sodium, dissolved	17.3	0.10 mg/L	19.1		91		81-117		
Strontium, dissolved	0.888	0.0010 mg/L	0.916		97		82-111		
Thallium, dissolved	0.0394	0.000020 mg/L	0.0393		100		90-113		
Uranium, dissolved	0.241	0.000020 mg/L	0.266		91		87-113		
Vanadium, dissolved	0.851	0.0010 mg/L	0.869		98		85-110		
Zinc, dissolved	0.948	0.0040 mg/L	0.881		108		88-114		

General Parameters, Batch B8L1625



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT	Allterra Construction P17-932		WORK ORDER REPORTED	8121666 2018-12-30 17:17					
Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B8L1625, Continued									
Blank (B8L1625-BLK1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Colour, True	< 5.0	5.0 CU							
LCS (B8L1625-BS1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Colour, True	20	5.0 CU	20.0		99	85-115			
General Parameters, Batch B8L1633									
Blank (B8L1633-BLK1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Solids, Total Suspended	< 2.0	2.0 mg/L							
Blank (B8L1633-BLK2)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Solids, Total Suspended	< 2.0	2.0 mg/L							
LCS (B8L1633-BS1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Solids, Total Suspended	102	10.0 mg/L	100		102	83-107			
LCS (B8L1633-BS2)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Solids, Total Suspended	99.0	10.0 mg/L	100		99	83-107			
General Parameters, Batch B8L1650									
Blank (B8L1650-BLK1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Turbidity	< 0.10	0.10 NTU							
General Parameters, Batch B8L1651									
Blank (B8L1651-BLK1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Alkalinity, Total (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0 mg/L							
LCS (B8L1651-BS1)			Prepared: 2018-12-21, Analyzed: 2018-12-21						
Alkalinity, Total (as CaCO3)	102	1.0 mg/L	100		102	92-106			
General Parameters, Batch B8L1753									
Blank (B8L1753-BLK1)			Prepared: 2018-12-24, Analyzed: 2018-12-24						
Conductivity (EC)	< 2.0	2.0 µS/cm							
LCS (B8L1753-BS1)			Prepared: 2018-12-24, Analyzed: 2018-12-24						
Conductivity (EC)	150	2.0 µS/cm	147		102	90-110			
Reference (B8L1753-SRM1)			Prepared: 2018-12-24, Analyzed: 2018-12-24						
Conductivity (EC)	1030	2.0 µS/cm	1000		103	95-105			
General Parameters, Batch B8L1805									
Blank (B8L1805-BLK1)			Prepared: 2018-12-27, Analyzed: 2018-12-27						
Chromium, Hexavalent	< 0.0010	0.0010 mg/L							
LCS (B8L1805-BS1)			Prepared: 2018-12-27, Analyzed: 2018-12-27						
Chromium, Hexavalent	0.0968	0.0010 mg/L	0.100		97	90-111			



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

General Parameters, Batch B8L1805, Continued

Duplicate (B8L1805-DUP1)		Source: 8121666-10		Prepared: 2018-12-27, Analyzed: 2018-12-27					
Chromium, Hexavalent	< 0.0010	0.0010 mg/L		< 0.0010					7
Matrix Spike (B8L1805-MS1)		Source: 8121666-09		Prepared: 2018-12-27, Analyzed: 2018-12-27					
Chromium, Hexavalent	0.0908	0.0010 mg/L	0.100	< 0.0010	91	70-116			

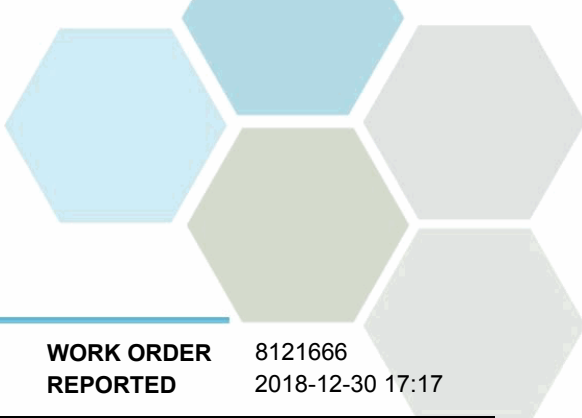
General Parameters, Batch B8L1814

Duplicate (B8L1814-DUP1)		Source: 8121666-07		Prepared: 2018-12-27, Analyzed: 2018-12-27					
pH	6.70	0.10 pH units		6.68			< 1		4

Polycyclic Aromatic Hydrocarbons (PAH), Batch B8L1640

Blank (B8L1640-BLK1)		Prepared: 2018-12-21, Analyzed: 2018-12-22							
Acenaphthene	< 0.050	0.050 µg/L							
Acenaphthylene	< 0.200	0.200 µg/L							
Acridine	< 0.050	0.050 µg/L							
Anthracene	< 0.010	0.010 µg/L							
Benzo(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	3.91	µg/L	4.44		88	50-140			
Surrogate: Naphthalene-d8	4.16	µg/L	4.47		93	50-140			
Surrogate: Perylene-d12	4.81	µg/L	4.47		108	50-140			

LCS (B8L1640-BS1)		Prepared: 2018-12-21, Analyzed: 2018-12-22							
Acenaphthene	4.54	0.050 µg/L	4.40		103	58-125			
Acenaphthylene	4.68	0.200 µg/L	4.40		106	54-128			
Acridine	3.61	0.050 µg/L	4.44		81	50-112			
Anthracene	4.23	0.010 µg/L	4.44		95	66-125			
Benzo(a)anthracene	4.75	0.010 µg/L	4.44		107	59-123			
Benzo(a)pyrene	4.43	0.010 µg/L	4.40		101	62-116			
Benzo(b+j)fluoranthene	8.05	0.050 µg/L	8.89		91	69-121			
Benzo(g,h,i)perylene	4.99	0.050 µg/L	4.40		113	58-129			
Benzo(k)fluoranthene	4.66	0.050 µg/L	4.44		105	67-128			
2-Chloronaphthalene	3.98	0.100 µg/L	4.44		90	50-140			
Chrysene	4.81	0.050 µg/L	4.42		109	58-125			
Dibenz(a,h)anthracene	5.08	0.010 µg/L	4.42		115	58-126			
Fluoranthene	4.71	0.030 µg/L	4.36		108	67-133			
Fluorene	4.07	0.050 µg/L	4.40		93	55-122			
Indeno(1,2,3-cd)pyrene	4.86	0.050 µg/L	4.44		109	62-126			
1-Methylnaphthalene	4.45	0.100 µg/L	4.38		102	53-125			



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

Polycyclic Aromatic Hydrocarbons (PAH), Batch B8L1640, Continued

LCS (B8L1640-BS1), Continued

Prepared: 2018-12-21, Analyzed: 2018-12-22

2-Methylnaphthalene	4.49	0.100 µg/L	4.36		103	52-122			
Naphthalene	4.56	0.200 µg/L	4.44		103	50-130			
Phenanthrene	4.62	0.100 µg/L	4.40		105	67-127			
Pyrene	4.52	0.020 µg/L	4.44		102	68-133			
Quinoline	5.12	0.050 µg/L	4.44		115	51-140			
Surrogate: Acridine-d9	4.05	µg/L	4.44		91	50-140			
Surrogate: Naphthalene-d8	4.65	µg/L	4.47		104	50-140			
Surrogate: Perylene-d12	4.65	µg/L	4.47		104	50-140			

LCS Dup (B8L1640-BSD1)

Prepared: 2018-12-21, Analyzed: 2018-12-22

Acenaphthene	4.00	0.050 µg/L	4.40		91	58-125	13	16	
Acenaphthylene	4.06	0.200 µg/L	4.40		92	54-128	14	16	
Acridine	3.37	0.050 µg/L	4.44		76	50-112	7	26	
Anthracene	4.11	0.010 µg/L	4.44		93	66-125	3	14	
Benz(a)anthracene	4.90	0.010 µg/L	4.44		110	59-123	3	23	
Benzo(a)pyrene	4.47	0.010 µg/L	4.40		102	62-116	1	16	
Benzo(b+j)fluoranthene	8.04	0.050 µg/L	8.89		90	69-121	< 1	14	
Benzo(g,h,i)perylene	4.71	0.050 µg/L	4.40		107	58-129	6	25	
Benzo(k)fluoranthene	4.74	0.050 µg/L	4.44		107	67-128	2	18	
2-Chloronaphthalene	4.17	0.100 µg/L	4.44		94	50-140	5	30	
Chrysene	5.05	0.050 µg/L	4.42		114	58-125	5	24	
Dibenz(a,h)anthracene	4.77	0.010 µg/L	4.42		108	58-126	6	23	
Fluoranthene	4.31	0.030 µg/L	4.36		99	67-133	9	18	
Fluorene	4.40	0.050 µg/L	4.40		100	55-122	8	16	
Indeno(1,2,3-cd)pyrene	4.48	0.050 µg/L	4.44		101	62-126	8	22	
1-Methylnaphthalene	4.01	0.100 µg/L	4.38		92	53-125	10	16	
2-Methylnaphthalene	3.99	0.100 µg/L	4.36		92	52-122	12	17	
Naphthalene	4.34	0.200 µg/L	4.44		98	50-130	5	18	
Phenanthrene	4.43	0.100 µg/L	4.40		101	67-127	4	14	
Pyrene	4.25	0.020 µg/L	4.44		96	68-133	6	18	
Quinoline	5.01	0.050 µg/L	4.44		113	51-140	2	12	
Surrogate: Acridine-d9	3.65	µg/L	4.44		82	50-140			
Surrogate: Naphthalene-d8	4.55	µg/L	4.47		102	50-140			
Surrogate: Perylene-d12	4.63	µg/L	4.47		104	50-140			

Total Metals, Batch B8L1604

Blank (B8L1604-BLK1)

Prepared: 2018-12-21, Analyzed: 2018-12-21

Mercury, total	< 0.000010	0.000010 mg/L							
----------------	------------	---------------	--	--	--	--	--	--	--

Reference (B8L1604-SRM1)

Prepared: 2018-12-21, Analyzed: 2018-12-21

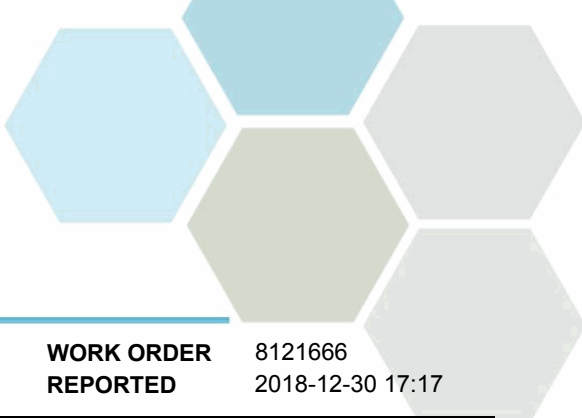
Mercury, total	0.00442	0.000010 mg/L	0.00489		90	80-120			
----------------	---------	---------------	---------	--	----	--------	--	--	--

Total Metals, Batch B8L1661

Blank (B8L1661-BLK1)

Prepared: 2018-12-21, Analyzed: 2018-12-23

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							



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

Total Metals, Batch B8L1661, Continued

Blank (B8L1661-BLK1), Continued

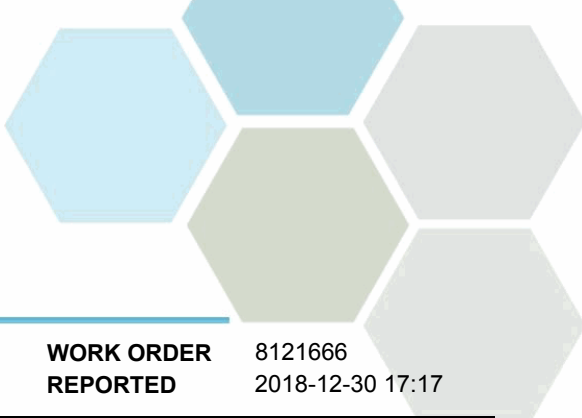
Prepared: 2018-12-21, Analyzed: 2018-12-23

Chromium, total	< 0.00050	0.00050 mg/L
Cobalt, total	< 0.00010	0.00010 mg/L
Copper, total	< 0.00040	0.00040 mg/L
Iron, total	< 0.010	0.010 mg/L
Lead, total	< 0.00020	0.00020 mg/L
Lithium, total	< 0.00010	0.00010 mg/L
Magnesium, total	< 0.010	0.010 mg/L
Manganese, total	< 0.00020	0.00020 mg/L
Molybdenum, total	< 0.00010	0.00010 mg/L
Nickel, total	< 0.00040	0.00040 mg/L
Phosphorus, total	< 0.050	0.050 mg/L
Potassium, total	< 0.10	0.10 mg/L
Selenium, total	< 0.00050	0.00050 mg/L
Silicon, total	< 1.0	1.0 mg/L
Silver, total	< 0.000050	0.000050 mg/L
Sodium, total	< 0.10	0.10 mg/L
Strontium, total	< 0.0010	0.0010 mg/L
Sulfur, total	< 3.0	3.0 mg/L
Tellurium, total	< 0.00050	0.00050 mg/L
Thallium, total	< 0.000020	0.000020 mg/L
Thorium, total	< 0.00010	0.00010 mg/L
Tin, total	< 0.00020	0.00020 mg/L
Titanium, total	< 0.0050	0.0050 mg/L
Tungsten, total	< 0.0010	0.0010 mg/L
Uranium, total	< 0.000020	0.000020 mg/L
Vanadium, total	< 0.0010	0.0010 mg/L
Zinc, total	< 0.0040	0.0040 mg/L
Zirconium, total	< 0.00010	0.00010 mg/L

Blank (B8L1661-BLK2)

Prepared: 2018-12-21, Analyzed: 2018-12-23

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

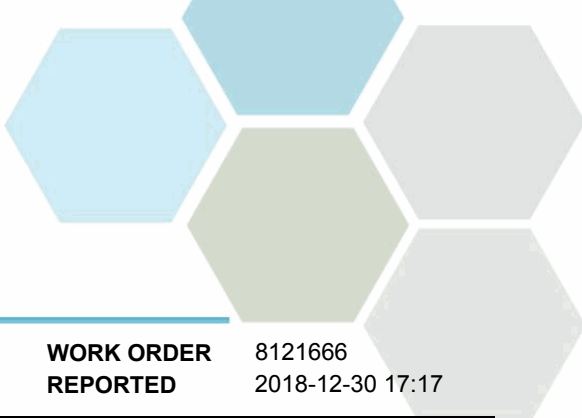


APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8L1661, Continued									
Blank (B8L1661-BLK2), Continued					Prepared: 2018-12-21, Analyzed: 2018-12-23				
Sulfur, total	< 3.0	3.0 mg/L							
Tellurium, total	< 0.00050	0.00050 mg/L							
Thallium, total	< 0.000020	0.000020 mg/L							
Thorium, total	< 0.00010	0.00010 mg/L							
Tin, total	< 0.00020	0.00020 mg/L							
Titanium, total	< 0.0050	0.0050 mg/L							
Tungsten, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Vanadium, total	< 0.0010	0.0010 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							
Zirconium, total	< 0.00010	0.00010 mg/L							
Blank (B8L1661-BLK3)					Prepared: 2018-12-21, Analyzed: 2018-12-23				
Aluminum, total	< 0.0050	0.0050 mg/L							
Antimony, total	< 0.00020	0.00020 mg/L							
Arsenic, total	< 0.00050	0.00050 mg/L							
Barium, total	< 0.0050	0.0050 mg/L							
Beryllium, total	< 0.00010	0.00010 mg/L							
Bismuth, total	< 0.00010	0.00010 mg/L							
Boron, total	< 0.0050	0.0050 mg/L							
Cadmium, total	< 0.000010	0.000010 mg/L							
Calcium, total	< 0.20	0.20 mg/L							
Chromium, total	< 0.00050	0.00050 mg/L							
Cobalt, total	< 0.00010	0.00010 mg/L							
Copper, total	< 0.00040	0.00040 mg/L							
Iron, total	< 0.010	0.010 mg/L							
Lead, total	< 0.00020	0.00020 mg/L							
Lithium, total	< 0.00010	0.00010 mg/L							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 mg/L							
Phosphorus, total	< 0.050	0.050 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Silicon, total	< 1.0	1.0 mg/L							
Silver, total	< 0.000050	0.000050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Sulfur, total	< 3.0	3.0 mg/L							
Tellurium, total	< 0.00050	0.00050 mg/L							
Thallium, total	< 0.000020	0.000020 mg/L							
Thorium, total	< 0.00010	0.00010 mg/L							
Tin, total	< 0.00020	0.00020 mg/L							
Titanium, total	< 0.0050	0.0050 mg/L							
Tungsten, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Vanadium, total	< 0.0010	0.0010 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							
Zirconium, total	< 0.00010	0.00010 mg/L							
Blank (B8L1661-BLK4)					Prepared: 2018-12-21, Analyzed: 2018-12-23				
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							



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

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

Total Metals, Batch B8L1661, Continued

Blank (B8L1661-BLK4), Continued

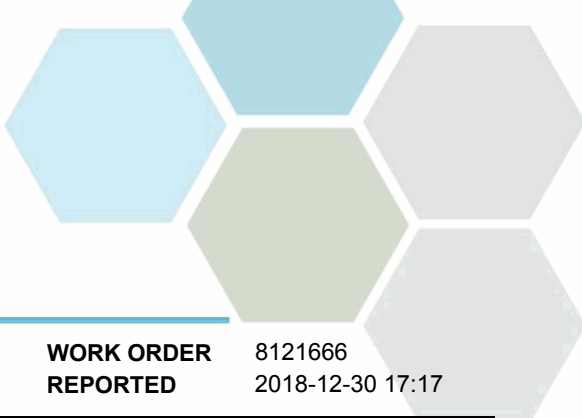
Prepared: 2018-12-21, Analyzed: 2018-12-23

Beryllium, total	< 0.00010	0.00010 mg/L							
Bismuth, total	< 0.00010	0.00010 mg/L							
Boron, total	< 0.0050	0.0050 mg/L							
Cadmium, total	< 0.000010	0.000010 mg/L							
Calcium, total	< 0.20	0.20 mg/L							
Chromium, total	< 0.00050	0.00050 mg/L							
Cobalt, total	< 0.00010	0.00010 mg/L							
Copper, total	< 0.00040	0.00040 mg/L							
Iron, total	< 0.010	0.010 mg/L							
Lead, total	< 0.00020	0.00020 mg/L							
Lithium, total	< 0.00010	0.00010 mg/L							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 mg/L							
Phosphorus, total	< 0.050	0.050 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Silicon, total	< 1.0	1.0 mg/L							
Silver, total	< 0.000050	0.000050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Sulfur, total	< 3.0	3.0 mg/L							
Tellurium, total	< 0.00050	0.00050 mg/L							
Thallium, total	< 0.000020	0.000020 mg/L							
Thorium, total	< 0.00010	0.00010 mg/L							
Tin, total	< 0.00020	0.00020 mg/L							
Titanium, total	< 0.0050	0.0050 mg/L							
Tungsten, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Vanadium, total	< 0.0010	0.0010 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							
Zirconium, total	< 0.00010	0.00010 mg/L							

LCS (B8L1661-BS1)

Prepared: 2018-12-21, Analyzed: 2018-12-23

Aluminum, total	0.0237	0.0050 mg/L	0.0200		119	80-120			
Antimony, total	0.0182	0.00020 mg/L	0.0200		91	80-120			
Arsenic, total	0.0213	0.00050 mg/L	0.0200		106	80-120			
Barium, total	0.0214	0.0050 mg/L	0.0200		107	80-120			
Beryllium, total	0.0207	0.00010 mg/L	0.0200		103	80-120			
Bismuth, total	0.0195	0.00010 mg/L	0.0200		98	80-120			
Boron, total	0.0217	0.0050 mg/L	0.0200		109	80-120			
Cadmium, total	0.0215	0.000010 mg/L	0.0200		107	80-120			
Calcium, total	2.12	0.20 mg/L	2.00		106	80-120			
Chromium, total	0.0212	0.00050 mg/L	0.0200		106	80-120			
Cobalt, total	0.0205	0.00010 mg/L	0.0200		103	80-120			
Copper, total	0.0203	0.00040 mg/L	0.0200		102	80-120			
Iron, total	2.14	0.010 mg/L	2.00		107	80-120			
Lead, total	0.0206	0.00020 mg/L	0.0200		103	80-120			
Lithium, total	0.0215	0.00010 mg/L	0.0200		108	80-120			
Magnesium, total	2.13	0.010 mg/L	2.00		107	80-120			
Manganese, total	0.0203	0.00020 mg/L	0.0200		102	80-120			
Molybdenum, total	0.0216	0.00010 mg/L	0.0200		108	80-120			
Nickel, total	0.0225	0.00040 mg/L	0.0200		113	80-120			
Phosphorus, total	2.40	0.050 mg/L	2.00		120	80-120			
Potassium, total	2.07	0.10 mg/L	2.00		104	80-120			



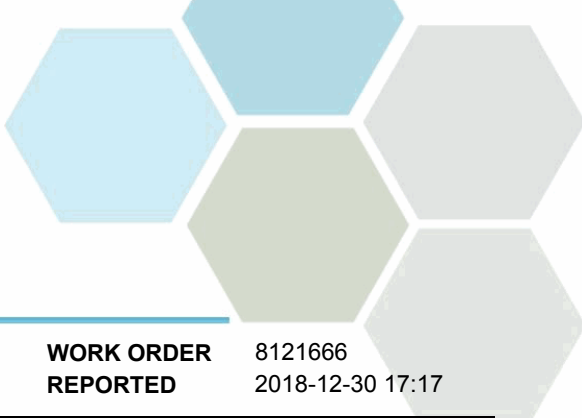
APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8L1661, Continued									
LCS (B8L1661-BS1), Continued					Prepared: 2018-12-21, Analyzed: 2018-12-23				
Selenium, total	0.0223	0.00050 mg/L	0.0200		112	80-120			
Silicon, total	2.2	1.0 mg/L	2.00		112	80-120			
Silver, total	0.0202	0.000050 mg/L	0.0200		101	80-120			
Sodium, total	2.20	0.10 mg/L	2.00		110	80-120			
Strontium, total	0.0189	0.0010 mg/L	0.0200		95	80-120			
Sulfur, total	5.6	3.0 mg/L	5.00		111	80-120			
Tellurium, total	0.0235	0.00050 mg/L	0.0200		117	80-120			
Thallium, total	0.0190	0.000020 mg/L	0.0200		95	80-120			
Thorium, total	0.0191	0.00010 mg/L	0.0200		95	80-120			
Tin, total	0.0200	0.00020 mg/L	0.0200		100	80-120			
Titanium, total	0.0225	0.0050 mg/L	0.0200		112	80-120			
Tungsten, total	0.0167	0.0010 mg/L	0.0200		84	80-120			
Uranium, total	0.0203	0.000020 mg/L	0.0200		102	80-120			
Vanadium, total	0.0196	0.0010 mg/L	0.0200		98	80-120			
Zinc, total	0.0230	0.0040 mg/L	0.0200		115	80-120			
Zirconium, total	0.0215	0.00010 mg/L	0.0200		108	80-120			

Duplicate (B8L1661-DUP1)		Source: 8121666-01		Prepared: 2018-12-21, Analyzed: 2018-12-23					
Aluminum, total	0.139	0.0050 mg/L		0.167			18	20	
Antimony, total	0.00068	0.00020 mg/L		0.00073				20	
Arsenic, total	0.00605	0.00050 mg/L		0.00646			7	15	
Barium, total	0.0980	0.0050 mg/L		0.102			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	0.0665	0.0050 mg/L		0.0707			6	20	
Cadmium, total	0.000061	0.000010 mg/L		0.000070			14	20	
Calcium, total	177	0.20 mg/L		184			4	12	
Chromium, total	0.00060	0.00050 mg/L		0.00066				12	
Cobalt, total	0.00359	0.00010 mg/L		0.00386			7	13	
Copper, total	0.00187	0.00040 mg/L		0.00215			14	20	
Iron, total	4.38	0.010 mg/L		4.68			7	18	
Lead, total	0.00055	0.00020 mg/L		0.00061				20	
Lithium, total	0.0101	0.00010 mg/L		0.0106			5	19	
Magnesium, total	38.0	0.010 mg/L		40.1			5	10	
Manganese, total	2.43	0.00020 mg/L		2.56			5	13	
Molybdenum, total	0.00139	0.00010 mg/L		0.00164			16	20	
Nickel, total	0.00806	0.00040 mg/L		0.00859			6	20	
Phosphorus, total	0.076	0.050 mg/L		0.070				20	
Potassium, total	3.49	0.10 mg/L		3.59			3	13	
Selenium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Silicon, total	13.0	1.0 mg/L		13.9			6	11	
Silver, total	< 0.000050	0.000050 mg/L		< 0.000050				18	
Sodium, total	58.8	0.10 mg/L		62.2			6	10	
Strontium, total	0.569	0.0010 mg/L		0.593			4	9	
Sulfur, total	22.9	3.0 mg/L		24.1			5	20	
Tellurium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Thallium, total	0.000049	0.000020 mg/L		0.000058				20	
Thorium, total	< 0.00010	0.00010 mg/L		< 0.00010				18	
Tin, total	0.00094	0.00020 mg/L		0.00104			10	20	
Titanium, total	0.0081	0.0050 mg/L		0.0080				20	
Tungsten, total	< 0.0010	0.0010 mg/L		< 0.0010				20	
Uranium, total	0.00595	0.000020 mg/L		0.00647			8	14	
Vanadium, total	< 0.0010	0.0010 mg/L		< 0.0010				17	
Zinc, total	0.0094	0.0040 mg/L		0.0102				8	
Zirconium, total	0.00019	0.00010 mg/L		0.00020				20	



APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8121666
2018-12-30 17:17

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8L1661, Continued									
Reference (B8L1661-SRM1)					Prepared: 2018-12-21, Analyzed: 2018-12-23				
Aluminum, total	0.347	0.0050 mg/L	0.303		114	82-114			
Antimony, total	0.0547	0.00020 mg/L	0.0511		107	88-115			
Arsenic, total	0.129	0.00050 mg/L	0.118		109	88-111			
Barium, total	0.875	0.0050 mg/L	0.823		106	83-110			
Beryllium, total	0.0506	0.00010 mg/L	0.0496		102	80-119			
Boron, total	3.65	0.0050 mg/L	3.45		106	80-118			
Cadmium, total	0.0539	0.000010 mg/L	0.0495		109	90-110			
Calcium, total	11.9	0.20 mg/L	11.6		102	85-113			
Chromium, total	0.269	0.00050 mg/L	0.250		107	88-111			
Cobalt, total	0.0404	0.00010 mg/L	0.0377		107	90-114			
Copper, total	0.533	0.00040 mg/L	0.486		110	90-117			
Iron, total	0.526	0.010 mg/L	0.488		108	90-116			
Lead, total	0.219	0.00020 mg/L	0.204		107	90-110			
Lithium, total	0.442	0.00010 mg/L	0.403		110	79-118			
Magnesium, total	3.96	0.010 mg/L	3.79		105	88-116			
Manganese, total	0.110	0.00020 mg/L	0.109		101	88-108			
Molybdenum, total	0.210	0.00010 mg/L	0.198		106	88-110			
Nickel, total	0.276	0.00040 mg/L	0.249		111	90-112			
Phosphorus, total	0.249	0.050 mg/L	0.227		110	72-118			
Potassium, total	7.26	0.10 mg/L	7.21		101	87-116			
Selenium, total	0.133	0.00050 mg/L	0.121		110	90-122			
Sodium, total	8.69	0.10 mg/L	7.54		115	86-118			
Strontium, total	0.364	0.0010 mg/L	0.375		97	86-110			
Thallium, total	0.0786	0.000020 mg/L	0.0805		98	90-113			
Uranium, total	0.0296	0.000020 mg/L	0.0306		97	88-112			
Vanadium, total	0.388	0.0010 mg/L	0.386		100	87-110			
Zinc, total	2.70	0.0040 mg/L	2.49		109	90-113			

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: 10 TAT: 5	CARO Analytical Services #110 - 4011 Viking Way Richmond, BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: Dec 2018 Shipped via: ACE Tracking #: SDG:

#	Client information	Analyses	Containers
# 1	MW6 12/17/2018 10:00 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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)
# 2	MW3S 12/17/2018 12:30 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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)
# 3	MW3D 12/17/2018 13:00 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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)

Submission Key F352-HAN-170D		SUBMITTED :12/18/2018 7:16:27 AM		Page 2 of 3
# 4	MW2 12/17/2018 13:30 Grab / Water	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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)	
# 5	SB1 12/17/2018 10:45 Grab / Water	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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)	
# 6	SB2 12/17/2018 11:00 Grab / Water	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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)	
# 7	SB3 12/17/2018 11:15 Grab / Water	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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)	

# 8	LE-1 12/17/2018 14:30 Grab / Water	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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)
-----	--	--	--

# 9	SW1 12/17/2018 13:15 Grab / Water	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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)
-----	---	---	---

# 10	SW2 12/17/2018 11:45 Grab / Water	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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)
------	---	---	---

Relinquished by	Date/Time	Accepted by	Date/Time



Submission Key F352-HAN-170D	SUBMITTED :12/18/2018 7:16:27 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: 10 TAT: 5	CARO Analytical Services #110 - 4011 Viking Way Richmond, BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: Dec 2018 Shipped via: ACE Tracking #: SDG:

#	Client information	Analyses	Containers
# 1	MW6 12/17/2018 10:00 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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)
# 2	MW3S 12/17/2018 12:30 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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)
# 3	MW3D 12/17/2018 13:00 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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)

Max. Express
12/19 1230
9.9°C TL

Submission Key F352-HAN-170D	SUBMITTED :12/18/2018 7:16:27 AM	Page 3 of 3
------------------------------	----------------------------------	-------------

# 8	LE-1 12/17/2018 14:30 Grab / Water	Analyses	Containers
		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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)

# 9	SW1 12/17/2018 13:15 Grab / Water	Analyses	Containers
		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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)

# 10	SW2 12/17/2018 11:45 Grab / Water	Analyses	Containers
		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 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & 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) S06_40 mL Vial (Mercury-F) (1)

Relinquished by	Date/Time	Accepted by	Date/Time