

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

**TEL** (250) 508-0726  
**FAX**

**ATTENTION** Rahim Gaidhar

**WORK ORDER** 6121816

**PO NUMBER** P15-06 SIRM  
**PROJECT** SIRM 460 Stebbings  
**PROJECT INFO**

**RECEIVED / TEMP** 2016-12-30 14:00 / 10°C  
**REPORTED** 2017-01-09  
**COC NUMBER** 20161229-B

**General Comments:**

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition 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.



Authorized By:

**Bryan Shaw, Ph.D., P.Chem.**  
Account Manager

*If you have any questions or concerns, please contact me at [bshaw@caro.ca](mailto:bshaw@caro.ca)*

**Locations:**

#110 4011 Viking Way  
Richmond, BC V6V 2K9  
Tel: 604-279-1499

#102 3677 Highway 97N  
Kelowna, BC V1X 5C3  
Tel: 250-765-9646

17225 109 Avenue  
Edmonton, AB T5S 1H7  
Tel: 780-489-9100

[www.caro.ca](http://www.caro.ca)

**REPORTED TO** Allterra Construction  
**PROJECT** SIRM 460 Stebbings

**WORK ORDER** 6121816  
**REPORTED** 2017-01-09

---

<b>Analysis Information</b> Analysis Descriptions, Method References, Glossary of Terms	Page 3
<b>Sample Analytical Data</b> Test Results, Reporting Limits, Analysis Dates, Sample & Analysis Notes	Page 4
<b>Quality Control Data</b> Method Blanks, Duplicates, Spikes, Reference Materials	Appendix 1
<b>Analytical Summary</b> Tabulated data in condensed format to assist with comparisons	Appendix 2
<b>Chain of Custody Document</b> Analysis instructions provided by client	Appendix 5

---

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analysis Description	Method Reference	Technique	Location
Alkalinity in Water	APHA 2320 B*	Titration with H2SO4	Kelowna
Anions by IC in Water	APHA 4110 B	Ion Chromatography with Chemical Suppression of Eluent Conductivity	Kelowna
Chromium, Hexavalent (Total) in Water	APHA 3500-Cr B	Colorimetry	Richmond
Colour, True in Water	APHA 2120 C	Spectrophotometry (456 nm)	Kelowna
Conductivity in Water	APHA 2510 B	Conductivity Meter	Kelowna
Dissolved Metals by ICPMS in Water	APHA 3030 B / APHA 3125 B	0.45 µm Filtration / Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	Richmond
Glycols in Water	EPA 8015B*	Gas Chromatography (GC-FID)	Richmond
Hardness (as CaCO3) in Water	APHA 2340 B	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	N/A
Hardness (as CaCO3) in Water	APHA 2340 B*	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Estimated)	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
Mercury, dissolved by CVAFS in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Mercury, total by CVAFS in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Nitrate+Nitrite by Colorimetry in Water	APHA 4500-NO3- F	Automated Colorimetry (Cadmium Reduction)	Kelowna
Nitrite by Colorimetry in Water	APHA 4500-NO2 B	Colorimetry	Richmond
pH in Water	APHA 4500-H+ B	Electrometry	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MS (SIM)	Richmond
Solids, Total Dissolved in Water	APHA 2540 C*	Gravimetry (Dried at 103-105C)	Kelowna
Solids, Total Suspended in Water	APHA 2540 D*	Gravimetry (Dried at 103-105C)	Kelowna
Total Metals by ICPMS in Water	APHA 3030E* / APHA 3125 B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	Richmond
Turbidity in Water	APHA 2130 B	Nephelometry	Kelowna
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260B	Purge&Trap / GC-MS (SIM)	Richmond

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

**Method Reference Descriptions:**

APHA Standard Methods for the Examination of Water and Wastewater, 22nd Edition, American Public Health Association/American Water Works Association/Water Environment Federation

BCMOE British Columbia Environmental Laboratory Manual, 2013, British Columbia Ministry of Environment

EPA United States Environmental Protection Agency Test Methods

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

**Glossary of Terms:**

MRL Method Reporting Limit  
< Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences  
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

---

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 1-WEIR (6121816-01) [Water] Sampled: 2016-12-29 13:45**

**Anions**

Chloride	34.4	± 1.6	0.10	mg/L	N/A	2017-01-04	
Fluoride	< 0.10		0.10	mg/L	N/A	2017-01-04	
Nitrate+Nitrite (as N)	0.239	± 0.007	0.005	mg/L	N/A	2017-01-05	
Nitrite (as N)	< 0.005		0.005	mg/L	2016-12-30	2016-12-30	
Sulfate	50.6	± 6.0	1.0	mg/L	N/A	2017-01-04	

**General Parameters**

Alkalinity, Total (as CaCO3)	53	± 3	1	mg/L	N/A	2017-01-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2017-01-04	
Alkalinity, Bicarbonate (as CaCO3)	53	± 3	1	mg/L	N/A	2017-01-04	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2017-01-04	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2017-01-04	
Chromium, Hexavalent	< 0.001		0.001	mg/L	N/A	2017-01-06	
Colour, True	< 5		5	CU	N/A	2017-01-04	HT1
Conductivity (EC)	327	± 5	2	µS/cm	N/A	2017-01-04	
pH	7.52	± 0.02	0.01	pH units	N/A	2017-01-04	HT2
Solids, Total Dissolved	197	± 19	10	mg/L	N/A	2017-01-04	
Solids, Total Suspended	7	± 1	2	mg/L	N/A	2017-01-03	
Turbidity	19.7	± 0.9	0.10	NTU	N/A	2017-01-04	HT1

**Calculated Parameters**

Chromium, Trivalent	0.0013		0.0010	mg/L	N/A	N/A	
Hardness, Total (as CaCO3)	113		0.50	mg/L	N/A	N/A	
Nitrate (as N)	0.239		0.015	mg/L	N/A	N/A	

**Dissolved Metals**

Aluminum, dissolved	0.007	± 0.002	0.005	mg/L	N/A	2017-01-03	
Antimony, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2017-01-03	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-01-03	
Barium, dissolved	0.006	± 0.001	0.005	mg/L	N/A	2017-01-03	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Boron, dissolved	0.020	± 0.004	0.004	mg/L	N/A	2017-01-03	
Cadmium, dissolved	< 0.00001		0.00001	mg/L	N/A	2017-01-03	
Calcium, dissolved	35.2	± 5.7	0.2	mg/L	N/A	2017-01-03	
Chromium, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-01-03	
Cobalt, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-01-03	
Copper, dissolved	0.0006	± 0.0003	0.0002	mg/L	N/A	2017-01-03	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2017-01-03	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Lithium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Magnesium, dissolved	6.09	± 1.03	0.01	mg/L	N/A	2017-01-03	
Manganese, dissolved	0.0006	± 0.0002	0.0002	mg/L	N/A	2017-01-03	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2017-01-03	2017-01-03	
Molybdenum, dissolved	0.0007	± 0.0001	0.0001	mg/L	N/A	2017-01-03	
Nickel, dissolved	0.0003	± 0.0002	0.0002	mg/L	N/A	2017-01-03	

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 1-WEIR (6121816-01) [Water] Sampled: 2016-12-29 13:45, Continued**

***Dissolved Metals, Continued***

Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2017-01-03	
Potassium, dissolved	<b>0.75</b>	± 0.11	0.02	mg/L	N/A	2017-01-03	
Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-01-03	
Silicon, dissolved	<b>2.5</b>	± 1.2	0.5	mg/L	N/A	2017-01-03	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-01-03	
Sodium, dissolved	<b>19.3</b>	± 3.1	0.02	mg/L	N/A	2017-01-03	
Strontium, dissolved	<b>0.117</b>	± 0.013	0.001	mg/L	N/A	2017-01-03	
Sulfur, dissolved	<b>16</b>	± 138	1	mg/L	N/A	2017-01-03	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-01-03	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2017-01-03	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-01-03	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2017-01-03	
Uranium, dissolved	<b>0.00042</b>	± 0.00006	0.00002	mg/L	N/A	2017-01-03	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2017-01-03	
Zinc, dissolved	< 0.004		0.004	mg/L	N/A	2017-01-03	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	

***Total Metals***

Aluminum, total	<b>0.489</b>	± 0.085	0.005	mg/L	2017-01-03	2017-01-03	
Antimony, total	<b>0.0002</b>	± 0.0001	0.0001	mg/L	2017-01-03	2017-01-03	
Arsenic, total	< 0.0005		0.0005	mg/L	2017-01-03	2017-01-03	
Barium, total	<b>0.009</b>	± 0.001	0.005	mg/L	2017-01-03	2017-01-03	
Beryllium, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	
Bismuth, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	
Boron, total	<b>0.020</b>	± 0.004	0.004	mg/L	2017-01-03	2017-01-03	
Cadmium, total	< 0.00001		0.00001	mg/L	2017-01-03	2017-01-03	
Calcium, total	<b>38.1</b>	± 4.4	0.2	mg/L	2017-01-03	2017-01-03	
Chromium, total	<b>0.0013</b>	± 0.0002	0.0005	mg/L	2017-01-03	2017-01-03	
Cobalt, total	<b>0.00038</b>	± 0.00003	0.00005	mg/L	2017-01-03	2017-01-03	
Copper, total	<b>0.0010</b>	± 0.0003	0.0002	mg/L	2017-01-03	2017-01-03	
Iron, total	<b>0.53</b>	± 0.10	0.01	mg/L	2017-01-03	2017-01-03	
Lead, total	<b>0.0005</b>	± 0.0001	0.0001	mg/L	2017-01-03	2017-01-03	
Lithium, total	<b>0.0004</b>	± 0.0001	0.0001	mg/L	2017-01-03	2017-01-03	
Magnesium, total	<b>6.66</b>	± 0.97	0.01	mg/L	2017-01-03	2017-01-03	
Manganese, total	<b>0.0107</b>	± 0.0009	0.0002	mg/L	2017-01-03	2017-01-03	
Mercury, total	< 0.00002		0.00002	mg/L	2017-01-03	2017-01-03	
Molybdenum, total	<b>0.0007</b>	± 0.0001	0.0001	mg/L	2017-01-03	2017-01-03	
Nickel, total	<b>0.0010</b>	± 0.0001	0.0002	mg/L	2017-01-03	2017-01-03	
Phosphorus, total	< 0.02		0.02	mg/L	2017-01-03	2017-01-03	
Potassium, total	<b>0.77</b>	± 0.09	0.02	mg/L	2017-01-03	2017-01-03	
Selenium, total	< 0.0005		0.0005	mg/L	2017-01-03	2017-01-03	
Silicon, total	<b>3.0</b>	± 1.1	0.5	mg/L	2017-01-03	2017-01-03	
Silver, total	< 0.00005		0.00005	mg/L	2017-01-03	2017-01-03	
Sodium, total	<b>20.5</b>	± 2.9	0.02	mg/L	2017-01-03	2017-01-03	
Strontium, total	<b>0.125</b>	± 0.011	0.001	mg/L	2017-01-03	2017-01-03	

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 1-WEIR (6121816-01) [Water] Sampled: 2016-12-29 13:45, Continued**

**Total Metals, Continued**

Sulfur, total	16	± 77	1	mg/L	2017-01-03	2017-01-03	
Tellurium, total	< 0.0002		0.0002	mg/L	2017-01-03	2017-01-03	
Thallium, total	< 0.00002		0.00002	mg/L	2017-01-03	2017-01-03	
Thorium, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	
Tin, total	< 0.0002		0.0002	mg/L	2017-01-03	2017-01-03	
Titanium, total	0.024	± 0.003	0.005	mg/L	2017-01-03	2017-01-03	
Uranium, total	0.00047	± 0.00003	0.00002	mg/L	2017-01-03	2017-01-03	
Vanadium, total	0.002		0.001	mg/L	2017-01-03	2017-01-03	
Zinc, total	< 0.004		0.004	mg/L	2017-01-03	2017-01-03	
Zirconium, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	

**BCMOE Aggregate Hydrocarbons**

EPHw10-19	< 250		250	µg/L	2017-01-02	2017-01-04	
EPHw19-32	< 250		250	µg/L	2017-01-02	2017-01-04	
LEPHw	< 250		250	µg/L	N/A	N/A	
HEPHw	< 250		250	µg/L	N/A	N/A	
Surrogate: 2-Methylnonane	89		60-140	%	2017-01-02	2017-01-04	

**Glycols**

Propylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Ethylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Diethylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Triethylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Surrogate: Tetramethylene Glycol	89		66-125	%	N/A	2017-01-03	

**Polycyclic Aromatic Hydrocarbons (PAH)**

Acenaphthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Acenaphthylene	< 0.20		0.20	µg/L	2017-01-02	2017-01-04	
Acridine	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Anthracene	< 0.01		0.01	µg/L	2017-01-02	2017-01-04	
Benz (a) anthracene	< 0.01		0.01	µg/L	2017-01-02	2017-01-04	
Benzo (a) pyrene	< 0.01		0.01	µg/L	2017-01-02	2017-01-04	
Benzo (b) fluoranthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Benzo (b+j) fluoranthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Benzo (g,h,i) perylene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Benzo (k) fluoranthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Chrysene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Dibenz (a,h) anthracene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Fluoranthene	< 0.03		0.03	µg/L	2017-01-02	2017-01-04	
Fluorene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Indeno (1,2,3-cd) pyrene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Naphthalene	< 0.20		0.20	µg/L	2017-01-02	2017-01-04	
Phenanthrene	< 0.10		0.10	µg/L	2017-01-02	2017-01-04	
Pyrene	< 0.02		0.02	µg/L	2017-01-02	2017-01-04	
Quinoline	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Surrogate: Acridine-d9	80		60-130	%	2017-01-02	2017-01-04	
Surrogate: Naphthalene-d8	87		60-130	%	2017-01-02	2017-01-04	

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 1-WEIR (6121816-01) [Water] Sampled: 2016-12-29 13:45, Continued**

**Polycyclic Aromatic Hydrocarbons (PAH), Continued**

Surrogate: Perylene-d12	92		60-130	%	2017-01-02	2017-01-04	
-------------------------	----	--	--------	---	------------	------------	--

**Volatile Organic Compounds (VOC)**

Benzene	< 0.5		0.5	µg/L	N/A	2017-01-06	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
Bromoform	< 1.0		1.0	µg/L	N/A	2017-01-06	
Bromomethane	< 2.0		2.0	µg/L	N/A	2017-01-06	
Carbon tetrachloride	< 0.5		0.5	µg/L	N/A	2017-01-06	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Chloroethane	< 2.0		2.0	µg/L	N/A	2017-01-06	
Chloroform	< 1.0		1.0	µg/L	N/A	2017-01-06	
Chloromethane	< 2.0		2.0	µg/L	N/A	2017-01-06	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dibromoethane	< 0.2		0.2	µg/L	N/A	2017-01-06	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2017-01-06	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2017-01-06	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-01-06	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2017-01-06	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2017-01-06	
Styrene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,2,2-Tetrachloroethane	< 0.5		0.5	µg/L	N/A	2017-01-06	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Toluene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
Vinyl chloride	< 1.0		1.0	µg/L	N/A	2017-01-06	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2017-01-06	
Surrogate: Toluene-d8	108		70-130	%	N/A	2017-01-06	
Surrogate: 4-Bromofluorobenzene	99		70-130	%	N/A	2017-01-06	
Surrogate: 1,4-Dichlorobenzene-d4	104		70-130	%	N/A	2017-01-06	

**Sample ID: 2-SW1 (6121816-02) [Water] Sampled: 2016-12-29 14:00**



**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 2-SW1 (6121816-02) [Water] Sampled: 2016-12-29 14:00, Continued**

**Anions**

Chloride	33.3	± 1.5	0.10	mg/L	N/A	2017-01-04	
Fluoride	< 0.10		0.10	mg/L	N/A	2017-01-04	
Nitrate+Nitrite (as N)	0.406	± 0.011	0.005	mg/L	N/A	2017-01-05	
Nitrite (as N)	< 0.005		0.005	mg/L	2016-12-30	2016-12-30	
Sulfate	62.6	± 7.4	1.0	mg/L	N/A	2017-01-04	

**General Parameters**

Alkalinity, Total (as CaCO3)	68	± 4	1	mg/L	N/A	2017-01-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2017-01-04	
Alkalinity, Bicarbonate (as CaCO3)	68	± 4	1	mg/L	N/A	2017-01-04	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2017-01-04	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2017-01-04	
Chromium, Hexavalent	< 0.001		0.001	mg/L	N/A	2017-01-06	
Colour, True	< 5		5	CU	N/A	2017-01-04	HT1
Conductivity (EC)	381	± 6	2	µS/cm	N/A	2017-01-04	
pH	7.54	± 0.02	0.01	pH units	N/A	2017-01-04	HT2
Solids, Total Dissolved	232	± 22	10	mg/L	N/A	2017-01-04	
Solids, Total Suspended	< 2		2	mg/L	N/A	2017-01-03	
Turbidity	5.55	± 0.26	0.10	NTU	N/A	2017-01-04	HT1

**Calculated Parameters**

Chromium, Trivalent	< 0.0010		0.0010	mg/L	N/A	N/A	
Hardness, Total (as CaCO3)	138		0.50	mg/L	N/A	N/A	
Nitrate (as N)	0.406		0.015	mg/L	N/A	N/A	

**Dissolved Metals**

Aluminum, dissolved	0.005	± 0.002	0.005	mg/L	N/A	2017-01-03	
Antimony, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2017-01-03	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-01-03	
Barium, dissolved	0.008	± 0.001	0.005	mg/L	N/A	2017-01-03	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Boron, dissolved	0.020	± 0.004	0.004	mg/L	N/A	2017-01-03	
Cadmium, dissolved	< 0.00001		0.00001	mg/L	N/A	2017-01-03	
Calcium, dissolved	43.5	± 7.0	0.2	mg/L	N/A	2017-01-03	
Chromium, dissolved	0.0007	± 0.0002	0.0005	mg/L	N/A	2017-01-03	
Cobalt, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-01-03	
Copper, dissolved	0.0009	± 0.0004	0.0002	mg/L	N/A	2017-01-03	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2017-01-03	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Lithium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Magnesium, dissolved	7.17	± 1.22	0.01	mg/L	N/A	2017-01-03	
Manganese, dissolved	0.0010	± 0.0002	0.0002	mg/L	N/A	2017-01-03	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2017-01-03	2017-01-03	
Molybdenum, dissolved	0.0008	± 0.0001	0.0001	mg/L	N/A	2017-01-03	
Nickel, dissolved	0.0003	± 0.0002	0.0002	mg/L	N/A	2017-01-03	

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 2-SW1 (6121816-02) [Water] Sampled: 2016-12-29 14:00, Continued**

***Dissolved Metals, Continued***

Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2017-01-03	
Potassium, dissolved	<b>0.77</b>	± 0.11	0.02	mg/L	N/A	2017-01-03	
Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-01-03	
Silicon, dissolved	<b>3.3</b>	± 1.6	0.5	mg/L	N/A	2017-01-03	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-01-03	
Sodium, dissolved	<b>17.5</b>	± 2.8	0.02	mg/L	N/A	2017-01-03	
Strontium, dissolved	<b>0.135</b>	± 0.015	0.001	mg/L	N/A	2017-01-03	
Sulfur, dissolved	<b>19</b>	± 162	1	mg/L	N/A	2017-01-03	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-01-03	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2017-01-03	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-01-03	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2017-01-03	
Uranium, dissolved	<b>0.00051</b>	± 0.00007	0.00002	mg/L	N/A	2017-01-03	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2017-01-03	
Zinc, dissolved	< 0.004		0.004	mg/L	N/A	2017-01-03	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-01-03	

***Total Metals***

Aluminum, total	<b>0.141</b>	± 0.026	0.005	mg/L	2017-01-03	2017-01-03	
Antimony, total	<b>0.0002</b>	± 0.0001	0.0001	mg/L	2017-01-03	2017-01-03	
Arsenic, total	< 0.0005		0.0005	mg/L	2017-01-03	2017-01-03	
Barium, total	<b>0.010</b>	± 0.001	0.005	mg/L	2017-01-03	2017-01-03	
Beryllium, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	
Bismuth, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	
Boron, total	<b>0.021</b>	± 0.004	0.004	mg/L	2017-01-03	2017-01-03	
Cadmium, total	< 0.00001		0.00001	mg/L	2017-01-03	2017-01-03	
Calcium, total	<b>48.7</b>	± 5.7	0.2	mg/L	2017-01-03	2017-01-03	
Chromium, total	<b>0.0009</b>	± 0.0001	0.0005	mg/L	2017-01-03	2017-01-03	
Cobalt, total	<b>0.00018</b>	± 0.00002	0.00005	mg/L	2017-01-03	2017-01-03	
Copper, total	<b>0.0003</b>	± 0.0002	0.0002	mg/L	2017-01-03	2017-01-03	
Iron, total	<b>0.15</b>	± 0.03	0.01	mg/L	2017-01-03	2017-01-03	
Lead, total	<b>0.0002</b>	± 0.0001	0.0001	mg/L	2017-01-03	2017-01-03	
Lithium, total	<b>0.0002</b>		0.0001	mg/L	2017-01-03	2017-01-03	
Magnesium, total	<b>8.01</b>	± 1.16	0.01	mg/L	2017-01-03	2017-01-03	
Manganese, total	<b>0.0089</b>	± 0.0008	0.0002	mg/L	2017-01-03	2017-01-03	
Mercury, total	< 0.00002		0.00002	mg/L	2017-01-03	2017-01-03	
Molybdenum, total	<b>0.0009</b>	± 0.0001	0.0001	mg/L	2017-01-03	2017-01-03	
Nickel, total	<b>0.0007</b>	± 0.0001	0.0002	mg/L	2017-01-03	2017-01-03	
Phosphorus, total	< 0.02		0.02	mg/L	2017-01-03	2017-01-03	
Potassium, total	<b>0.79</b>	± 0.09	0.02	mg/L	2017-01-03	2017-01-03	
Selenium, total	< 0.0005		0.0005	mg/L	2017-01-03	2017-01-03	
Silicon, total	<b>3.8</b>	± 1.3	0.5	mg/L	2017-01-03	2017-01-03	
Silver, total	< 0.00005		0.00005	mg/L	2017-01-03	2017-01-03	
Sodium, total	<b>19.5</b>	± 2.7	0.02	mg/L	2017-01-03	2017-01-03	
Strontium, total	<b>0.150</b>	± 0.013	0.001	mg/L	2017-01-03	2017-01-03	

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 2-SW1 (6121816-02) [Water] Sampled: 2016-12-29 14:00, Continued**

**Total Metals, Continued**

Sulfur, total	20	± 94	1	mg/L	2017-01-03	2017-01-03	
Tellurium, total	< 0.0002		0.0002	mg/L	2017-01-03	2017-01-03	
Thallium, total	< 0.00002		0.00002	mg/L	2017-01-03	2017-01-03	
Thorium, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	
Tin, total	< 0.0002		0.0002	mg/L	2017-01-03	2017-01-03	
Titanium, total	0.006	± 0.001	0.005	mg/L	2017-01-03	2017-01-03	
Uranium, total	0.00058	± 0.00004	0.00002	mg/L	2017-01-03	2017-01-03	
Vanadium, total	0.001		0.001	mg/L	2017-01-03	2017-01-03	
Zinc, total	< 0.004		0.004	mg/L	2017-01-03	2017-01-03	
Zirconium, total	< 0.0001		0.0001	mg/L	2017-01-03	2017-01-03	

**BCMOE Aggregate Hydrocarbons**

EPHw10-19	< 250		250	µg/L	2017-01-02	2017-01-04	
EPHw19-32	< 250		250	µg/L	2017-01-02	2017-01-04	
LEPHw	< 250		250	µg/L	N/A	N/A	
HEPHw	< 250		250	µg/L	N/A	N/A	
Surrogate: 2-Methylnonane	93		60-140	%	2017-01-02	2017-01-04	

**Glycols**

Propylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Ethylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Diethylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Triethylene glycol	< 5		5	mg/L	N/A	2017-01-03	
Surrogate: Tetramethylene Glycol	97		66-125	%	N/A	2017-01-03	

**Polycyclic Aromatic Hydrocarbons (PAH)**

Acenaphthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Acenaphthylene	< 0.20		0.20	µg/L	2017-01-02	2017-01-04	
Acridine	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Anthracene	< 0.01		0.01	µg/L	2017-01-02	2017-01-04	
Benz (a) anthracene	< 0.01		0.01	µg/L	2017-01-02	2017-01-04	
Benzo (a) pyrene	< 0.01		0.01	µg/L	2017-01-02	2017-01-04	
Benzo (b) fluoranthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Benzo (b+j) fluoranthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Benzo (g,h,i) perylene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Benzo (k) fluoranthene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Chrysene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Dibenz (a,h) anthracene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Fluoranthene	< 0.03		0.03	µg/L	2017-01-02	2017-01-04	
Fluorene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Indeno (1,2,3-cd) pyrene	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Naphthalene	< 0.20		0.20	µg/L	2017-01-02	2017-01-04	
Phenanthrene	< 0.10		0.10	µg/L	2017-01-02	2017-01-04	
Pyrene	< 0.02		0.02	µg/L	2017-01-02	2017-01-04	
Quinoline	< 0.05		0.05	µg/L	2017-01-02	2017-01-04	
Surrogate: Acridine-d9	72		60-130	%	2017-01-02	2017-01-04	
Surrogate: Naphthalene-d8	83		60-130	%	2017-01-02	2017-01-04	

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	----------------------	----------------------------	-----------------	-------	----------	----------	-------

**Sample ID: 2-SW1 (6121816-02) [Water] Sampled: 2016-12-29 14:00, Continued**

**Polycyclic Aromatic Hydrocarbons (PAH), Continued**

Surrogate: Perylene-d12	88		60-130	%	2017-01-02	2017-01-04	
-------------------------	----	--	--------	---	------------	------------	--

**Volatile Organic Compounds (VOC)**

Benzene	< 0.5		0.5	µg/L	N/A	2017-01-06	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
Bromoform	< 1.0		1.0	µg/L	N/A	2017-01-06	
Bromomethane	< 2.0		2.0	µg/L	N/A	2017-01-06	
Carbon tetrachloride	< 0.5		0.5	µg/L	N/A	2017-01-06	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Chloroethane	< 2.0		2.0	µg/L	N/A	2017-01-06	
Chloroform	< 1.0		1.0	µg/L	N/A	2017-01-06	
Chloromethane	< 2.0		2.0	µg/L	N/A	2017-01-06	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dibromoethane	< 0.2		0.2	µg/L	N/A	2017-01-06	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2017-01-06	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2017-01-06	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-01-06	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2017-01-06	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2017-01-06	
Styrene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,2,2-Tetrachloroethane	< 0.5		0.5	µg/L	N/A	2017-01-06	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Toluene	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2017-01-06	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2017-01-06	
Vinyl chloride	< 1.0		1.0	µg/L	N/A	2017-01-06	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2017-01-06	
Surrogate: Toluene-d8	106		70-130	%	N/A	2017-01-06	
Surrogate: 4-Bromofluorobenzene	95		70-130	%	N/A	2017-01-06	
Surrogate: 1,4-Dichlorobenzene-d4	99		70-130	%	N/A	2017-01-06	

**REPORTED TO** Allterra Construction  
**PROJECT** SIRM 460 Stebbings

**WORK ORDER** 6121816  
**REPORTED** 2017-01-09

**Sample / Analysis 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.

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

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):** Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- **Duplicate (Dup):** Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- **Blank Spike (BS):** A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- **Standard Reference Material (SRM):** A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are 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 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	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Anions, Batch B6L1621</b>									
<b>Blank (B6L1621-BLK1)</b>			Prepared: 2016-12-30, Analyzed: 2016-12-30						
Nitrite (as N)	< 0.005	0.005 mg/L							
<b>LCS (B6L1621-BS1)</b>			Prepared: 2016-12-30, Analyzed: 2016-12-30						
Nitrite (as N)	0.050	0.005 mg/L	0.0500		100	90-110			
<b>Anions, Batch B6L1630</b>									
<b>Blank (B6L1630-BLK1)</b>			Prepared: 2017-01-05, Analyzed: 2017-01-05						
Nitrate+Nitrite (as N)	< 0.010	0.005 mg/L							
<b>LCS (B6L1630-BS1)</b>			Prepared: 2017-01-05, Analyzed: 2017-01-05						
Nitrate+Nitrite (as N)	0.508	0.005 mg/L	0.500		102	91-108			
<b>Duplicate (B6L1630-DUP1)</b>			Source: 6121816-01		Prepared: 2017-01-05, Analyzed: 2017-01-05				
Nitrate+Nitrite (as N)	0.239	0.005 mg/L		0.239			< 1	15	
<b>Matrix Spike (B6L1630-MS1)</b>			Source: 6121816-01		Prepared: 2017-01-05, Analyzed: 2017-01-05				
Nitrate+Nitrite (as N)	0.366	0.005 mg/L	0.125	0.239	102	81-118			
<b>Anions, Batch B7A0124</b>									
<b>Blank (B7A0124-BLK1)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Sulfate	< 1.0	1.0 mg/L							
<b>Blank (B7A0124-BLK2)</b>			Prepared: 2017-01-05, Analyzed: 2017-01-05						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Sulfate	< 1.0	1.0 mg/L							

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
---------	--------	-----------	-------------	---------------	-------	-----------	-------	-----------	-------

**Anions, Batch B7A0124, Continued**

**LCS (B7A0124-BS1)**

Prepared: 2017-01-04, Analyzed: 2017-01-04

Chloride	16.1	0.10 mg/L	16.0		101	90-110			
Fluoride	3.93	0.10 mg/L	4.00		98	88-108			
Sulfate	16.0	1.0 mg/L	16.0		100	91-109			

**LCS (B7A0124-BS2)**

Prepared: 2017-01-05, Analyzed: 2017-01-05

Chloride	16.1	0.10 mg/L	16.0		101	90-110			
Fluoride	3.79	0.10 mg/L	4.00		95	88-108			
Sulfate	15.9	1.0 mg/L	16.0		99	91-109			

**BCMOE Aggregate Hydrocarbons, Batch B7A0006**

**Blank (B7A0006-BLK1)**

Prepared: 2017-01-02, Analyzed: 2017-01-04

EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							
Surrogate: 2-Methylnonane	402	µg/L	444		91	60-140			

**LCS (B7A0006-BS2)**

Prepared: 2017-01-02, Analyzed: 2017-01-04

EPHw10-19	17400	250 µg/L	15600		112	70-130			
EPHw19-32	20200	250 µg/L	22200		91	70-130			
Surrogate: 2-Methylnonane	462	µg/L	444		104	60-140			

**Dissolved Metals, Batch B7A0013**

**Blank (B7A0013-BLK1)**

Prepared: 2017-01-03, Analyzed: 2017-01-03

Aluminum, dissolved	< 0.005	0.005 mg/L							
Antimony, dissolved	< 0.0001	0.0001 mg/L							
Arsenic, dissolved	< 0.0005	0.0005 mg/L							
Barium, dissolved	< 0.005	0.005 mg/L							
Beryllium, dissolved	< 0.0001	0.0001 mg/L							
Bismuth, dissolved	< 0.0001	0.0001 mg/L							
Boron, dissolved	< 0.004	0.004 mg/L							
Cadmium, dissolved	< 0.00001	0.00001 mg/L							
Calcium, dissolved	< 0.2	0.2 mg/L							
Chromium, dissolved	< 0.0005	0.0005 mg/L							
Cobalt, dissolved	< 0.00005	0.00005 mg/L							
Copper, dissolved	< 0.0002	0.0002 mg/L							
Iron, dissolved	< 0.010	0.010 mg/L							
Lead, dissolved	< 0.0001	0.0001 mg/L							
Lithium, dissolved	< 0.0001	0.0001 mg/L							
Magnesium, dissolved	< 0.01	0.01 mg/L							
Manganese, dissolved	< 0.0002	0.0002 mg/L							
Molybdenum, dissolved	< 0.0001	0.0001 mg/L							
Nickel, dissolved	< 0.0002	0.0002 mg/L							
Phosphorus, dissolved	< 0.02	0.02 mg/L							
Potassium, dissolved	< 0.02	0.02 mg/L							
Selenium, dissolved	< 0.0005	0.0005 mg/L							
Silicon, dissolved	< 0.5	0.5 mg/L							
Silver, dissolved	< 0.00005	0.00005 mg/L							
Sodium, dissolved	< 0.02	0.02 mg/L							
Strontium, dissolved	< 0.001	0.001 mg/L							
Sulfur, dissolved	< 1	1 mg/L							
Tellurium, dissolved	< 0.0002	0.0002 mg/L							
Thallium, dissolved	< 0.00002	0.00002 mg/L							
Thorium, dissolved	< 0.0001	0.0001 mg/L							
Tin, dissolved	< 0.0002	0.0002 mg/L							
Titanium, dissolved	< 0.005	0.005 mg/L							

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
---------	--------	-----------	-------------	---------------	-------	-----------	-------	-----------	-------

**Dissolved Metals, Batch B7A0013, Continued**

**Blank (B7A0013-BLK1), Continued**

Prepared: 2017-01-03, Analyzed: 2017-01-03

Uranium, dissolved	< 0.00002	0.00002 mg/L							
Vanadium, dissolved	< 0.001	0.001 mg/L							
Zinc, dissolved	< 0.004	0.004 mg/L							
Zirconium, dissolved	< 0.0001	0.0001 mg/L							

**Duplicate (B7A0013-DUP1)**

**Source: 6121816-02**

Prepared: 2017-01-03, Analyzed: 2017-01-03

Aluminum, dissolved	< 0.005	0.005 mg/L		0.005				11	
Antimony, dissolved	0.0002	0.0001 mg/L		0.0002				44	
Arsenic, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				8	
Barium, dissolved	0.008	0.005 mg/L		0.008				7	
Beryllium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				14	
Bismuth, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				20	
Boron, dissolved	0.022	0.004 mg/L		0.020			10	13	
Cadmium, dissolved	< 0.00001	0.00001 mg/L		< 0.00001				27	
Calcium, dissolved	44.2	0.2 mg/L		43.5			1	8	
Chromium, dissolved	0.0008	0.0005 mg/L		0.0007				14	
Cobalt, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				10	
Copper, dissolved	0.0009	0.0002 mg/L		0.0009				28	
Iron, dissolved	< 0.010	0.010 mg/L		< 0.010				14	
Lead, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				26	
Lithium, dissolved	0.0001	0.0001 mg/L		0.0001				14	
Magnesium, dissolved	7.29	0.01 mg/L		7.17			2	6	
Manganese, dissolved	0.0011	0.0002 mg/L		0.0010			7	9	
Molybdenum, dissolved	0.0009	0.0001 mg/L		0.0008			9	19	
Nickel, dissolved	0.0003	0.0002 mg/L		0.0003				21	
Phosphorus, dissolved	< 0.02	0.02 mg/L		< 0.02				14	
Potassium, dissolved	0.79	0.02 mg/L		0.77			2	8	
Selenium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				36	
Silicon, dissolved	3.4	0.5 mg/L		3.3			2	12	
Silver, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				20	
Sodium, dissolved	17.8	0.02 mg/L		17.5			2	6	
Strontium, dissolved	0.138	0.001 mg/L		0.135			2	6	
Sulfur, dissolved	20	1 mg/L		19			4	26	
Tellurium, dissolved	< 0.0002	0.0002 mg/L		< 0.0002				20	
Thallium, dissolved	< 0.00002	0.00002 mg/L		< 0.00002				13	
Thorium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				30	
Tin, dissolved	< 0.0002	0.0002 mg/L		< 0.0002				6	
Titanium, dissolved	< 0.005	0.005 mg/L		< 0.005				20	
Uranium, dissolved	0.00052	0.00002 mg/L		0.00051			2	14	
Vanadium, dissolved	< 0.001	0.001 mg/L		< 0.001				20	
Zinc, dissolved	< 0.004	0.004 mg/L		< 0.004				11	
Zirconium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				36	

**Reference (B7A0013-SRM1)**

Prepared: 2017-01-03, Analyzed: 2017-01-03

Aluminum, dissolved	0.220	0.005 mg/L	0.233	94	58-142
Antimony, dissolved	0.0432	0.0001 mg/L	0.0430	100	75-125
Arsenic, dissolved	0.418	0.0005 mg/L	0.438	95	81-119
Barium, dissolved	3.26	0.005 mg/L	3.35	97	83-117
Beryllium, dissolved	0.197	0.0001 mg/L	0.213	92	80-120
Boron, dissolved	1.68	0.004 mg/L	1.74	97	74-117
Cadmium, dissolved	0.210	0.00001 mg/L	0.224	94	83-117
Calcium, dissolved	7.5	0.2 mg/L	7.69	97	76-124
Chromium, dissolved	0.432	0.0005 mg/L	0.437	99	81-119
Cobalt, dissolved	0.126	0.00005 mg/L	0.128	98	76-124
Copper, dissolved	0.855	0.0002 mg/L	0.844	101	84-116
Iron, dissolved	1.26	0.010 mg/L	1.29	98	74-126
Lead, dissolved	0.106	0.0001 mg/L	0.112	95	72-128



## APPENDIX 1: QUALITY CONTROL DATA

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Dissolved Metals, Batch B7A0013, Continued</b>									
<b>Reference (B7A0013-SRM1), Continued</b>					Prepared: 2017-01-03, Analyzed: 2017-01-03				
Lithium, dissolved	0.0965	0.0001 mg/L	0.104		93	60-140			
Magnesium, dissolved	6.95	0.01 mg/L	6.92		100	81-119			
Manganese, dissolved	0.332	0.0002 mg/L	0.345		96	84-116			
Molybdenum, dissolved	0.417	0.0001 mg/L	0.426		98	83-117			
Nickel, dissolved	0.837	0.0002 mg/L	0.840		100	74-126			
Phosphorus, dissolved	0.44	0.02 mg/L	0.495		89	68-132			
Potassium, dissolved	2.91	0.02 mg/L	3.19		91	74-126			
Selenium, dissolved	0.0334	0.0005 mg/L	0.0331		101	70-130			
Sodium, dissolved	18.7	0.02 mg/L	19.1		98	72-128			
Strontium, dissolved	0.873	0.001 mg/L	0.916		95	84-113			
Thallium, dissolved	0.0370	0.00002 mg/L	0.0393		94	57-143			
Uranium, dissolved	0.252	0.00002 mg/L	0.266		95	85-115			
Vanadium, dissolved	0.834	0.001 mg/L	0.869		96	87-113			
Zinc, dissolved	0.835	0.004 mg/L	0.881		95	72-128			

**Dissolved Metals, Batch B7A0027**

<b>Blank (B7A0027-BLK1)</b>					Prepared: 2017-01-03, Analyzed: 2017-01-03				
Mercury, dissolved	< 0.00002	0.00002 mg/L							
<b>Duplicate (B7A0027-DUP1)</b>					Source: 6121816-01 Prepared: 2017-01-03, Analyzed: 2017-01-03				
Mercury, dissolved	< 0.00002	0.00002 mg/L		< 0.00002				20	
<b>Matrix Spike (B7A0027-MS1)</b>					Source: 6121816-02 Prepared: 2017-01-03, Analyzed: 2017-01-03				
Mercury, dissolved	0.00026	0.00002 mg/L	0.000250	< 0.00002	104	70-130			
<b>Reference (B7A0027-SRM1)</b>					Prepared: 2017-01-03, Analyzed: 2017-01-03				
Mercury, dissolved	0.00556	0.00002 mg/L	0.00489		114	50-150			

**General Parameters, Batch B7A0021**

<b>Blank (B7A0021-BLK1)</b>					Prepared: 2017-01-03, Analyzed: 2017-01-03				
Solids, Total Suspended	< 1	2 mg/L							
<b>LCS (B7A0021-BS1)</b>					Prepared: 2017-01-03, Analyzed: 2017-01-03				
Solids, Total Suspended	51	2 mg/L	50.0		102	91-106			

**General Parameters, Batch B7A0063**

<b>Blank (B7A0063-BLK1)</b>					Prepared: 2017-01-04, Analyzed: 2017-01-04				
Turbidity	< 0.10	0.10 NTU							
<b>LCS (B7A0063-BS1)</b>					Prepared: 2017-01-04, Analyzed: 2017-01-04				
Turbidity	41.7	0.10 NTU	40.0		104	90-110			
<b>Duplicate (B7A0063-DUP1)</b>					Source: 6121816-01 Prepared: 2017-01-04, Analyzed: 2017-01-04				
Turbidity	19.6	0.10 NTU	19.7				< 1	15	

**General Parameters, Batch B7A0071**

<b>Blank (B7A0071-BLK1)</b>					Prepared: 2017-01-04, Analyzed: 2017-01-04				
Colour, True	< 5	5 CU							
<b>LCS (B7A0071-BS1)</b>					Prepared: 2017-01-04, Analyzed: 2017-01-04				
Colour, True	10	5 CU	10.0		100	85-115			

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>General Parameters, Batch B7A0071, Continued</b>									
<b>Duplicate (B7A0071-DUP1)</b>			<b>Source: 6121816-02</b>		Prepared: 2017-01-04, Analyzed: 2017-01-04				
Colour, True	< 5	5 CU		< 5				5	
<b>General Parameters, Batch B7A0092</b>									
<b>Blank (B7A0092-BLK1)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-05						
Alkalinity, Total (as CaCO3)	< 1	1 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1	1 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1	1 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1	1 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1	1 mg/L							
Conductivity (EC)	< 2	2 µS/cm							
<b>Blank (B7A0092-BLK2)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Alkalinity, Total (as CaCO3)	< 1	1 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1	1 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1	1 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1	1 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1	1 mg/L							
Conductivity (EC)	< 2	2 µS/cm							
<b>LCS (B7A0092-BS1)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Alkalinity, Total (as CaCO3)	99	1 mg/L	100		99	92-106			
<b>LCS (B7A0092-BS2)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Alkalinity, Total (as CaCO3)	102	1 mg/L	100		102	92-106			
<b>LCS (B7A0092-BS3)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Conductivity (EC)	1400	2 µS/cm	1410		99	95-104			
<b>LCS (B7A0092-BS4)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Conductivity (EC)	1410	2 µS/cm	1410		100	95-104			
<b>Duplicate (B7A0092-DUP1)</b>			<b>Source: 6121816-01</b>		Prepared: 2017-01-04, Analyzed: 2017-01-04				
Alkalinity, Total (as CaCO3)	53	1 mg/L		53			< 1	10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	1 mg/L		< 1				10	
Alkalinity, Bicarbonate (as CaCO3)	53	1 mg/L		53			< 1	10	
Alkalinity, Carbonate (as CaCO3)	< 1	1 mg/L		< 1				10	
Alkalinity, Hydroxide (as CaCO3)	< 1	1 mg/L		< 1				10	
Conductivity (EC)	327	2 µS/cm		327			< 1	5	
pH	7.63	0.01 pH units		7.52			1	4	
<b>Reference (B7A0092-SRM1)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
pH	6.97	0.01 pH units		7.00			100	98-102	
<b>Reference (B7A0092-SRM2)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
pH	7.00	0.01 pH units		7.00			100	98-102	
<b>General Parameters, Batch B7A0123</b>									
<b>Blank (B7A0123-BLK1)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Solids, Total Dissolved	< 10	10 mg/L							
<b>LCS (B7A0123-BS1)</b>			Prepared: 2017-01-04, Analyzed: 2017-01-04						
Solids, Total Dissolved	231	10 mg/L		240		96		80-120	
<b>Duplicate (B7A0123-DUP1)</b>			<b>Source: 6121816-01</b>		Prepared: 2017-01-04, Analyzed: 2017-01-04				
Solids, Total Dissolved	195	10 mg/L		197			1	16	

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>General Parameters, Batch B7A0222</b>									
<b>Blank (B7A0222-BLK1)</b>			Prepared: 2017-01-06, Analyzed: 2017-01-06						
Chromium, Hexavalent	< 0.001	0.001 mg/L							
<b>LCS (B7A0222-BS1)</b>			Prepared: 2017-01-06, Analyzed: 2017-01-06						
Chromium, Hexavalent	0.104	0.001 mg/L	0.100		104	90-111			
<b>Duplicate (B7A0222-DUP1)</b>			Source: 6121816-02		Prepared: 2017-01-06, Analyzed: 2017-01-06				
Chromium, Hexavalent	< 0.001	0.001 mg/L		< 0.001				7	
<b>Glycols, Batch B6L1634</b>									
<b>Blank (B6L1634-BLK1)</b>			Prepared: 2017-01-03, Analyzed: 2017-01-03						
Propylene glycol	< 5	5 mg/L							
Ethylene glycol	< 5	5 mg/L							
Diethylene glycol	< 5	5 mg/L							
Triethylene glycol	< 5	5 mg/L							
Surrogate: Tetramethylene Glycol	86.9	mg/L	95.6		91	66-125			
<b>LCS (B6L1634-BS1)</b>			Prepared: 2017-01-03, Analyzed: 2017-01-03						
Propylene glycol	45	5 mg/L	50.0		89	71-114			
Ethylene glycol	50	5 mg/L	49.9		100	82-124			
Diethylene glycol	45	5 mg/L	50.0		89	80-116			
Triethylene glycol	48	5 mg/L	49.8		96	73-120			
Surrogate: Tetramethylene Glycol	88.9	mg/L	95.6		93	66-125			
<b>LCS Dup (B6L1634-BSD1)</b>			Prepared: 2017-01-03, Analyzed: 2017-01-03						
Propylene glycol	43	5 mg/L	50.0		86	71-114	3	20	
Ethylene glycol	48	5 mg/L	49.9		97	82-124	3	20	
Diethylene glycol	44	5 mg/L	50.0		87	80-116	2	20	
Triethylene glycol	46	5 mg/L	49.8		92	73-120	4	20	
Surrogate: Tetramethylene Glycol	83.9	mg/L	95.6		88	66-125			
<b>Polycyclic Aromatic Hydrocarbons (PAH), Batch B7A0006</b>									
<b>Blank (B7A0006-BLK1)</b>			Prepared: 2017-01-02, Analyzed: 2017-01-04						
Acenaphthene	< 0.05	0.05 µg/L							
Acenaphthylene	< 0.20	0.20 µg/L							
Acridine	< 0.05	0.05 µg/L							
Anthracene	< 0.01	0.01 µg/L							
Benzo (a) anthracene	< 0.01	0.01 µg/L							
Benzo (a) pyrene	< 0.01	0.01 µg/L							
Benzo (b) fluoranthene	< 0.05	0.05 µg/L							
Benzo (b+j) fluoranthene	< 0.05	0.05 µg/L							
Benzo (g,h,i) perylene	< 0.05	0.05 µg/L							
Benzo (k) fluoranthene	< 0.05	0.05 µg/L							
Chrysene	< 0.05	0.05 µg/L							
Dibenz (a,h) anthracene	< 0.05	0.05 µg/L							
Fluoranthene	< 0.03	0.03 µg/L							
Fluorene	< 0.05	0.05 µg/L							
Indeno (1,2,3-cd) pyrene	< 0.05	0.05 µg/L							
Naphthalene	< 0.20	0.20 µg/L							
Phenanthrene	< 0.10	0.10 µg/L							
Pyrene	< 0.02	0.02 µg/L							
Quinoline	< 0.05	0.05 µg/L							
Surrogate: Acridine-d9	3.46	µg/L	4.44		78	60-130			
Surrogate: Naphthalene-d8	3.84	µg/L	4.44		86	60-130			

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
---------	--------	-----------	-------------	---------------	-------	-----------	-------	-----------	-------

**Polycyclic Aromatic Hydrocarbons (PAH), Batch B7A0006, Continued**

**Blank (B7A0006-BLK1), Continued**

Prepared: 2017-01-02, Analyzed: 2017-01-04

Surrogate: Perylene-d12	4.13	µg/L	4.44		93	60-130			
-------------------------	------	------	------	--	----	--------	--	--	--

**LCS (B7A0006-BS1)**

Prepared: 2017-01-02, Analyzed: 2017-01-04

Acenaphthene	3.87	0.05 µg/L	4.44		87	70-130			
Acenaphthylene	4.03	0.20 µg/L	4.44		91	70-130			
Acridine	3.76	0.05 µg/L	4.44		85	60-130			
Anthracene	4.35	0.01 µg/L	4.44		98	70-130			
Benz (a) anthracene	3.94	0.01 µg/L	4.44		89	70-130			
Benzo (a) pyrene	3.88	0.01 µg/L	4.44		87	70-130			
Benzo (b) fluoranthene	4.45	0.05 µg/L	4.44		100	70-130			
Benzo (b+j) fluoranthene	8.53	0.05 µg/L	8.89		96	70-130			
Benzo (g,h,i) perylene	4.48	0.05 µg/L	4.44		101	70-130			
Benzo (k) fluoranthene	4.41	0.05 µg/L	4.44		99	70-130			
Chrysene	3.86	0.05 µg/L	4.44		87	70-130			
Dibenz (a,h) anthracene	4.29	0.05 µg/L	4.44		97	70-130			
Fluoranthene	4.60	0.03 µg/L	4.44		103	70-130			
Fluorene	3.91	0.05 µg/L	4.44		88	70-130			
Indeno (1,2,3-cd) pyrene	4.34	0.05 µg/L	4.44		98	70-130			
Naphthalene	3.85	0.20 µg/L	4.44		87	70-130			
Phenanthrene	4.30	0.10 µg/L	4.44		97	70-130			
Pyrene	4.50	0.02 µg/L	4.44		101	70-130			
Quinoline	5.06	0.05 µg/L	4.44		114	70-130			
Surrogate: Acridine-d9	3.71	µg/L	4.44		84	60-130			
Surrogate: Naphthalene-d8	3.79	µg/L	4.44		85	60-130			
Surrogate: Perylene-d12	4.23	µg/L	4.44		95	60-130			

**LCS Dup (B7A0006-BSD1)**

Prepared: 2017-01-02, Analyzed: 2017-01-04

Acenaphthene	3.94	0.05 µg/L	4.44		89	70-130	2	20	
Acenaphthylene	4.08	0.20 µg/L	4.44		92	70-130	1	20	
Acridine	3.69	0.05 µg/L	4.44		83	60-130	2	20	
Anthracene	4.37	0.01 µg/L	4.44		98	70-130	< 1	20	
Benz (a) anthracene	3.94	0.01 µg/L	4.44		89	70-130	< 1	20	
Benzo (a) pyrene	3.88	0.01 µg/L	4.44		87	70-130	< 1	20	
Benzo (b) fluoranthene	4.46	0.05 µg/L	4.44		100	70-130	< 1	20	
Benzo (b+j) fluoranthene	8.51	0.05 µg/L	8.89		96	70-130	< 1	20	
Benzo (g,h,i) perylene	4.46	0.05 µg/L	4.44		100	70-130	< 1	20	
Benzo (k) fluoranthene	4.42	0.05 µg/L	4.44		99	70-130	< 1	20	
Chrysene	3.87	0.05 µg/L	4.44		87	70-130	< 1	20	
Dibenz (a,h) anthracene	4.26	0.05 µg/L	4.44		96	70-130	< 1	20	
Fluoranthene	4.55	0.03 µg/L	4.44		102	70-130	1	20	
Fluorene	3.96	0.05 µg/L	4.44		89	70-130	1	20	
Indeno (1,2,3-cd) pyrene	4.32	0.05 µg/L	4.44		97	70-130	< 1	20	
Naphthalene	3.99	0.20 µg/L	4.44		90	70-130	4	20	
Phenanthrene	4.36	0.10 µg/L	4.44		98	70-130	1	20	
Pyrene	4.51	0.02 µg/L	4.44		101	70-130	< 1	20	
Quinoline	5.06	0.05 µg/L	4.44		114	70-130	< 1	20	
Surrogate: Acridine-d9	3.68	µg/L	4.44		83	60-130			
Surrogate: Naphthalene-d8	3.88	µg/L	4.44		87	60-130			
Surrogate: Perylene-d12	4.24	µg/L	4.44		95	60-130			

**Total Metals, Batch B7A0016**

**Blank (B7A0016-BLK1)**

Prepared: 2017-01-03, Analyzed: 2017-01-03

Aluminum, total	< 0.005	0.005 mg/L							
Antimony, total	< 0.0001	0.0001 mg/L							
Arsenic, total	< 0.0005	0.0005 mg/L							

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
---------	--------	-----------	-------------	---------------	-------	-----------	-------	-----------	-------

**Total Metals, Batch B7A0016, Continued**

**Blank (B7A0016-BLK1), Continued**

Prepared: 2017-01-03, Analyzed: 2017-01-03

Barium, total	< 0.005	0.005 mg/L							
Beryllium, total	< 0.0001	0.0001 mg/L							
Bismuth, total	< 0.0001	0.0001 mg/L							
Boron, total	< 0.004	0.004 mg/L							
Cadmium, total	< 0.00001	0.00001 mg/L							
Calcium, total	< 0.2	0.2 mg/L							
Chromium, total	< 0.0005	0.0005 mg/L							
Cobalt, total	< 0.00005	0.00005 mg/L							
Copper, total	< 0.0002	0.0002 mg/L							
Iron, total	< 0.01	0.01 mg/L							
Lead, total	< 0.0001	0.0001 mg/L							
Lithium, total	< 0.0001	0.0001 mg/L							
Magnesium, total	< 0.01	0.01 mg/L							
Manganese, total	< 0.0002	0.0002 mg/L							
Molybdenum, total	< 0.0001	0.0001 mg/L							
Nickel, total	< 0.0002	0.0002 mg/L							
Phosphorus, total	< 0.02	0.02 mg/L							
Potassium, total	< 0.02	0.02 mg/L							
Selenium, total	< 0.0005	0.0005 mg/L							
Silicon, total	< 0.5	0.5 mg/L							
Silver, total	< 0.00005	0.00005 mg/L							
Sodium, total	< 0.02	0.02 mg/L							
Strontium, total	< 0.001	0.001 mg/L							
Sulfur, total	< 1	1 mg/L							
Tellurium, total	< 0.0002	0.0002 mg/L							
Thallium, total	< 0.00002	0.00002 mg/L							
Thorium, total	< 0.0001	0.0001 mg/L							
Tin, total	< 0.0002	0.0002 mg/L							
Titanium, total	< 0.005	0.005 mg/L							
Uranium, total	< 0.00002	0.00002 mg/L							
Vanadium, total	< 0.001	0.001 mg/L							
Zinc, total	< 0.004	0.004 mg/L							
Zirconium, total	< 0.0001	0.0001 mg/L							

**Duplicate (B7A0016-DUP1)**

Source: 6121816-01

Prepared: 2017-01-03, Analyzed: 2017-01-03

Aluminum, total	0.518	0.005 mg/L		0.489			6	29	
Antimony, total	0.0002	0.0001 mg/L		0.0002				31	
Arsenic, total	< 0.0005	0.0005 mg/L		< 0.0005				15	
Barium, total	0.010	0.005 mg/L		0.009				9	
Beryllium, total	< 0.0001	0.0001 mg/L		< 0.0001				16	
Bismuth, total	< 0.0001	0.0001 mg/L		< 0.0001				20	
Boron, total	0.023	0.004 mg/L		0.020			12	29	
Cadmium, total	< 0.00001	0.00001 mg/L		< 0.00001				33	
Calcium, total	38.5	0.2 mg/L		38.1			1	12	
Chromium, total	0.0013	0.0005 mg/L		0.0013				12	
Cobalt, total	0.00041	0.00005 mg/L		0.00038			9	13	
Copper, total	0.0010	0.0002 mg/L		0.0010			< 1	37	
Iron, total	0.56	0.01 mg/L		0.53			5	18	
Lead, total	0.0005	0.0001 mg/L		0.0005			3	23	
Lithium, total	0.0004	0.0001 mg/L		0.0004				19	
Magnesium, total	6.65	0.01 mg/L		6.66			< 1	10	
Manganese, total	0.0113	0.0002 mg/L		0.0107			5	13	
Molybdenum, total	0.0006	0.0001 mg/L		0.0007			2	20	
Nickel, total	0.0011	0.0002 mg/L		0.0010			3	28	
Phosphorus, total	< 0.02	0.02 mg/L		< 0.02				24	
Potassium, total	0.77	0.02 mg/L		0.77			< 1	13	
Selenium, total	< 0.0005	0.0005 mg/L		< 0.0005				24	

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
---------	--------	-----------	-------------	---------------	-------	-----------	-------	-----------	-------

**Total Metals, Batch B7A0016, Continued**

Duplicate (B7A0016-DUP1), Continued		Source: 6121816-01		Prepared: 2017-01-03, Analyzed: 2017-01-03					
Silicon, total	3.3	0.5 mg/L		3.0			8	11	
Silver, total	< 0.00005	0.00005 mg/L		< 0.00005				18	
Sodium, total	20.7	0.02 mg/L		20.5			< 1	10	
Strontium, total	0.125	0.001 mg/L		0.125			< 1	9	
Sulfur, total	16	1 mg/L		16			2	24	
Tellurium, total	< 0.0002	0.0002 mg/L		< 0.0002				20	
Thallium, total	< 0.00002	0.00002 mg/L		< 0.00002				24	
Thorium, total	< 0.0001	0.0001 mg/L		< 0.0001				18	
Tin, total	< 0.0002	0.0002 mg/L		< 0.0002				18	
Titanium, total	0.022	0.005 mg/L		0.024				32	
Uranium, total	0.00046	0.00002 mg/L		0.00047			2	14	
Vanadium, total	0.002	0.001 mg/L		0.002				17	
Zinc, total	< 0.004	0.004 mg/L		< 0.004				8	
Zirconium, total	0.0006	0.0001 mg/L		0.0001			147	60	

Reference (B7A0016-SRM1)		Prepared: 2017-01-03, Analyzed: 2017-01-03							
Aluminum, total	0.303	0.005 mg/L	0.303	100	81-129				
Antimony, total	0.0516	0.0001 mg/L	0.0511	101	88-114				
Arsenic, total	0.117	0.0005 mg/L	0.118	100	88-114				
Barium, total	0.777	0.005 mg/L	0.823	94	72-104				
Beryllium, total	0.0465	0.0001 mg/L	0.0496	94	76-131				
Boron, total	3.15	0.004 mg/L	3.45	91	75-121				
Cadmium, total	0.0495	0.00001 mg/L	0.0495	100	89-111				
Calcium, total	11.4	0.2 mg/L	11.6	98	86-121				
Chromium, total	0.254	0.0005 mg/L	0.250	102	89-114				
Cobalt, total	0.0396	0.00005 mg/L	0.0377	105	91-113				
Copper, total	0.529	0.0002 mg/L	0.486	109	91-115				
Iron, total	0.52	0.01 mg/L	0.488	107	77-124				
Lead, total	0.208	0.0001 mg/L	0.204	102	92-113				
Lithium, total	0.374	0.0001 mg/L	0.403	93	85-115				
Magnesium, total	3.94	0.01 mg/L	3.79	104	78-120				
Manganese, total	0.110	0.0002 mg/L	0.109	101	90-114				
Molybdenum, total	0.203	0.0001 mg/L	0.198	103	90-111				
Nickel, total	0.253	0.0002 mg/L	0.249	102	90-111				
Phosphorus, total	0.20	0.02 mg/L	0.227	90	85-115				
Potassium, total	7.32	0.02 mg/L	7.21	101	84-113				
Selenium, total	0.127	0.0005 mg/L	0.121	105	85-115				
Sodium, total	7.91	0.02 mg/L	7.54	105	82-123				
Strontium, total	0.373	0.001 mg/L	0.375	100	88-112				
Thallium, total	0.0830	0.00002 mg/L	0.0805	103	91-114				
Uranium, total	0.0299	0.00002 mg/L	0.0306	98	85-120				
Vanadium, total	0.381	0.001 mg/L	0.386	99	86-111				
Zinc, total	2.56	0.004 mg/L	2.49	103	85-111				

**Total Metals, Batch B7A0029**

Blank (B7A0029-BLK1)		Prepared: 2017-01-03, Analyzed: 2017-01-03							
Mercury, total	< 0.00002	0.00002 mg/L							
Reference (B7A0029-SRM1)		Prepared: 2017-01-03, Analyzed: 2017-01-03							
Mercury, total	0.00521	0.00002 mg/L	0.00489	106	50-150				

**Volatile Organic Compounds (VOC), Batch B7A0200**

Blank (B7A0200-BLK1)		Prepared: 2017-01-06, Analyzed: 2017-01-06							
Benzene	< 0.5	0.5 µg/L							

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
---------	--------	-----------	-------------	---------------	-------	-----------	-------	-----------	-------

**Volatile Organic Compounds (VOC), Batch B7A0200, Continued**

**Blank (B7A0200-BLK1), Continued**

Prepared: 2017-01-06, Analyzed: 2017-01-06

Bromodichloromethane	< 1.0	1.0 µg/L							
Bromoform	< 1.0	1.0 µg/L							
Bromomethane	< 2.0	2.0 µg/L							
Carbon tetrachloride	< 0.5	0.5 µg/L							
Chlorobenzene	< 1.0	1.0 µg/L							
Chloroethane	< 2.0	2.0 µg/L							
Chloroform	< 1.0	1.0 µg/L							
Chloromethane	< 2.0	2.0 µg/L							
Dibromochloromethane	< 1.0	1.0 µg/L							
1,2-Dibromoethane	< 0.2	0.2 µg/L							
Dibromomethane	< 1.0	1.0 µg/L							
1,2-Dichlorobenzene	< 0.5	0.5 µg/L							
1,3-Dichlorobenzene	< 1.0	1.0 µg/L							
1,4-Dichlorobenzene	< 1.0	1.0 µg/L							
1,1-Dichloroethane	< 1.0	1.0 µg/L							
1,2-Dichloroethane	< 1.0	1.0 µg/L							
1,1-Dichloroethene	< 1.0	1.0 µg/L							
cis-1,2-Dichloroethene	< 1.0	1.0 µg/L							
trans-1,2-Dichloroethene	< 1.0	1.0 µg/L							
1,2-Dichloropropane	< 1.0	1.0 µg/L							
cis-1,3-Dichloropropene	< 1.0	1.0 µg/L							
trans-1,3-Dichloropropene	< 1.0	1.0 µg/L							
Ethylbenzene	< 1.0	1.0 µg/L							
Methyl tert-butyl ether	< 1.0	1.0 µg/L							
Methylene chloride	< 3.0	3.0 µg/L							
Styrene	< 1.0	1.0 µg/L							
1,1,1,2-Tetrachloroethane	< 1.0	1.0 µg/L							
1,1,2,2-Tetrachloroethane	< 0.5	0.5 µg/L							
Tetrachloroethene	< 1.0	1.0 µg/L							
Toluene	< 1.0	1.0 µg/L							
1,1,1-Trichloroethane	< 1.0	1.0 µg/L							
1,1,2-Trichloroethane	< 1.0	1.0 µg/L							
Trichloroethene	< 1.0	1.0 µg/L							
Trichlorofluoromethane	< 1.0	1.0 µg/L							
Vinyl chloride	< 1.0	1.0 µg/L							
Xylenes (total)	< 2.0	2.0 µg/L							
Surrogate: Toluene-d8	27.2	µg/L	25.0		109	70-130			
Surrogate: 4-Bromofluorobenzene	24.2	µg/L	25.0		97	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	24.4	µg/L	25.0		98	70-130			

**LCS (B7A0200-BS1)**

Prepared: 2017-01-07, Analyzed: 2017-01-07

Benzene	23.2	0.5 µg/L	20.0		116	70-130			
Bromodichloromethane	23.3	1.0 µg/L	20.0		117	70-130			
Bromoform	20.4	1.0 µg/L	20.0		102	70-130			
Bromomethane	27.1	2.0 µg/L	20.0		135	70-130			SPK
Carbon tetrachloride	22.3	0.5 µg/L	20.0		112	70-130			
Chlorobenzene	24.1	1.0 µg/L	20.0		121	70-130			
Chloroethane	18.0	2.0 µg/L	20.0		90	70-130			
Chloroform	23.7	1.0 µg/L	20.0		118	70-130			
Chloromethane	26.8	2.0 µg/L	20.0		134	70-130			SPK
Dibromochloromethane	22.4	1.0 µg/L	20.0		112	70-130			
1,2-Dibromoethane	22.1	0.2 µg/L	20.0		110	70-130			
Dibromomethane	22.3	1.0 µg/L	20.0		111	70-130			
1,2-Dichlorobenzene	25.0	0.5 µg/L	20.0		125	70-130			
1,3-Dichlorobenzene	25.3	1.0 µg/L	20.0		127	70-130			
1,4-Dichlorobenzene	25.4	1.0 µg/L	20.0		127	70-130			

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Volatile Organic Compounds (VOC), Batch B7A0200, Continued</b>									
<b>LCS (B7A0200-BS1), Continued</b>					Prepared: 2017-01-07, Analyzed: 2017-01-07				
1,1-Dichloroethane	23.5	1.0 µg/L	20.0		118	70-130			
1,2-Dichloroethane	23.0	1.0 µg/L	20.0		115	70-130			
1,1-Dichloroethene	22.6	1.0 µg/L	20.0		113	70-130			
cis-1,2-Dichloroethene	23.4	1.0 µg/L	20.0		117	70-130			
trans-1,2-Dichloroethene	23.0	1.0 µg/L	20.0		115	70-130			
1,2-Dichloropropane	24.5	1.0 µg/L	20.0		123	70-130			
cis-1,3-Dichloropropene	24.0	1.0 µg/L	20.0		120	70-130			
trans-1,3-Dichloropropene	22.9	1.0 µg/L	20.0		115	70-130			
Ethylbenzene	23.5	1.0 µg/L	20.0		118	70-130			
Methyl tert-butyl ether	28.3	1.0 µg/L	20.0		142	70-130			SPK
Methylene chloride	22.1	3.0 µg/L	20.0		110	70-130			
Styrene	23.7	1.0 µg/L	20.0		119	70-130			
1,1,1,2-Tetrachloroethane	22.4	1.0 µg/L	20.0		112	70-130			
1,1,2,2-Tetrachloroethane	22.9	0.5 µg/L	20.0		114	70-130			
Tetrachloroethene	23.6	1.0 µg/L	20.0		118	70-130			
Toluene	22.7	1.0 µg/L	20.0		114	70-130			
1,1,1-Trichloroethane	23.2	1.0 µg/L	20.0		116	70-130			
1,1,2-Trichloroethane	22.4	1.0 µg/L	20.0		112	70-130			
Trichloroethene	23.9	1.0 µg/L	20.0		120	70-130			
Trichlorofluoromethane	24.6	1.0 µg/L	20.0		123	70-130			
Vinyl chloride	23.1	1.0 µg/L	20.0		116	70-130			
Xylenes (total)	65.4	2.0 µg/L	60.0		109	70-130			
Surrogate: Toluene-d8	27.7	µg/L	25.0		111	70-130			
Surrogate: 4-Bromofluorobenzene	24.7	µg/L	25.0		99	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	29.0	µg/L	25.0		116	70-130			

**QC Qualifiers:**

SPK The recovery of this analyte was outside of established control limits.



**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

		6121816-01	6121816-02
		Water	Water
		2016-12-29	2016-12-29
		1-WEIR	2-SW1
Anions	Chloride (mg/L)	34.4	33.3
	Fluoride (mg/L)	< 0.10	< 0.10
	Nitrate+Nitrite (as N) (mg/L)	0.239	0.406
	Nitrite (as N) (mg/L)	< 0.005	< 0.005
	Sulfate (mg/L)	50.6	62.6
General Parameters	Alkalinity, Total (as CaCO3) (mg/L)	53	68
	Alkalinity, Phenolphthalein (as CaCO3) (mg/	< 1	< 1
	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	53	68
	Alkalinity, Carbonate (as CaCO3) (mg/L)	< 1	< 1
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	< 1	< 1
	Chromium, Hexavalent (mg/L)	< 0.001	< 0.001
	Colour, True (CU)	< 5	< 5
	Conductivity (EC) (uS/cm)	327	381
	pH (pH units)	7.52	7.54
	Solids, Total Dissolved (mg/L)	197	232
	Solids, Total Suspended (mg/L)	7	< 2
	Turbidity (NTU)	19.7	5.55
Calculated Parameters	Chromium, Trivalent (mg/L)	0.0013	< 0.0010
	Hardness, Total (as CaCO3) (mg/L)	113	138
	Nitrate (as N) (mg/L)	0.239	0.406
Dissolved Metals	Aluminum, dissolved (mg/L)	0.007	0.005
	Antimony, dissolved (mg/L)	0.0002	0.0002
	Arsenic, dissolved (mg/L)	< 0.0005	< 0.0005
	Barium, dissolved (mg/L)	0.006	0.008
	Beryllium, dissolved (mg/L)	< 0.0001	< 0.0001
	Bismuth, dissolved (mg/L)	< 0.0001	< 0.0001
	Boron, dissolved (mg/L)	0.020	0.020
	Cadmium, dissolved (mg/L)	< 0.00001	< 0.00001
	Calcium, dissolved (mg/L)	35.2	43.5
	Chromium, dissolved (mg/L)	< 0.0005	0.0007
	Cobalt, dissolved (mg/L)	< 0.00005	< 0.00005
	Copper, dissolved (mg/L)	0.0006	0.0009
	Iron, dissolved (mg/L)	< 0.010	< 0.010
	Lead, dissolved (mg/L)	< 0.0001	< 0.0001
	Lithium, dissolved (mg/L)	< 0.0001	< 0.0001
	Magnesium, dissolved (mg/L)	6.09	7.17
	Manganese, dissolved (mg/L)	0.0006	0.0010
	Mercury, dissolved (mg/L)	< 0.00002	< 0.00002
	Molybdenum, dissolved (mg/L)	0.0007	0.0008
	Nickel, dissolved (mg/L)	0.0003	0.0003
	Phosphorus, dissolved (mg/L)	< 0.02	< 0.02
	Potassium, dissolved (mg/L)	0.75	0.77
	Selenium, dissolved (mg/L)	< 0.0005	< 0.0005
Silicon, dissolved (mg/L)	2.5	3.3	

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

		6121816-01	6121816-02
		Water	Water
		2016-12-29	2016-12-29
		1-WEIR	2-SW1
Dissolved Metals	Silver, dissolved (mg/L)	< 0.00005	< 0.00005
	Sodium, dissolved (mg/L)	19.3	17.5
	Strontium, dissolved (mg/L)	0.117	0.135
	Sulfur, dissolved (mg/L)	16	19
	Tellurium, dissolved (mg/L)	< 0.0002	< 0.0002
	Thallium, dissolved (mg/L)	< 0.00002	< 0.00002
	Thorium, dissolved (mg/L)	< 0.0001	< 0.0001
	Tin, dissolved (mg/L)	< 0.0002	< 0.0002
	Titanium, dissolved (mg/L)	< 0.005	< 0.005
	Uranium, dissolved (mg/L)	0.00042	0.00051
	Vanadium, dissolved (mg/L)	< 0.001	< 0.001
	Zinc, dissolved (mg/L)	< 0.004	< 0.004
	Zirconium, dissolved (mg/L)	< 0.0001	< 0.0001
Total Metals	Aluminum, total (mg/L)	0.489	0.141
	Antimony, total (mg/L)	0.0002	0.0002
	Arsenic, total (mg/L)	< 0.0005	< 0.0005
	Barium, total (mg/L)	0.009	0.010
	Beryllium, total (mg/L)	< 0.0001	< 0.0001
	Bismuth, total (mg/L)	< 0.0001	< 0.0001
	Boron, total (mg/L)	0.020	0.021
	Cadmium, total (mg/L)	< 0.00001	< 0.00001
	Calcium, total (mg/L)	38.1	48.7
	Chromium, total (mg/L)	0.0013	0.0009
	Cobalt, total (mg/L)	0.00038	0.00018
	Copper, total (mg/L)	0.0010	0.0003
	Iron, total (mg/L)	0.53	0.15
	Lead, total (mg/L)	0.0005	0.0002
	Lithium, total (mg/L)	0.0004	0.0002
	Magnesium, total (mg/L)	6.66	8.01
	Manganese, total (mg/L)	0.0107	0.0089
	Mercury, total (mg/L)	< 0.00002	< 0.00002
	Molybdenum, total (mg/L)	0.0007	0.0009
	Nickel, total (mg/L)	0.0010	0.0007
	Phosphorus, total (mg/L)	< 0.02	< 0.02
	Potassium, total (mg/L)	0.77	0.79
	Selenium, total (mg/L)	< 0.0005	< 0.0005
	Silicon, total (mg/L)	3.0	3.8
	Silver, total (mg/L)	< 0.00005	< 0.00005
	Sodium, total (mg/L)	20.5	19.5
	Strontium, total (mg/L)	0.125	0.150
	Sulfur, total (mg/L)	16	20
	Tellurium, total (mg/L)	< 0.0002	< 0.0002
	Thallium, total (mg/L)	< 0.00002	< 0.00002
	Thorium, total (mg/L)	< 0.0001	< 0.0001
	Tin, total (mg/L)	< 0.0002	< 0.0002

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

		6121816-01	6121816-02
		Water	Water
		2016-12-29	2016-12-29
		1-WEIR	2-SW1
Total Metals	Titanium, total (mg/L)	0.024	0.006
	Uranium, total (mg/L)	0.00047	0.00058
	Vanadium, total (mg/L)	0.002	0.001
	Zinc, total (mg/L)	< 0.004	< 0.004
	Zirconium, total (mg/L)	< 0.0001	< 0.0001
BCMOE Aggregate Hydrocarbons	EPHw10-19 (ug/L)	< 250	< 250
	EPHw19-32 (ug/L)	< 250	< 250
	LEPHw (ug/L)	< 250	< 250
	HEPHw (ug/L)	< 250	< 250
	Sur: 2-Methylnonane (%)	89	93
Glycols	Propylene glycol (mg/L)	< 5	< 5
	Ethylene glycol (mg/L)	< 5	< 5
	Diethylene glycol (mg/L)	< 5	< 5
	Triethylene glycol (mg/L)	< 5	< 5
	Sur: Tetramethylene Glycol (%)	89	97
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene (ug/L)	< 0.05	< 0.05
	Acenaphthylene (ug/L)	< 0.20	< 0.20
	Acridine (ug/L)	< 0.05	< 0.05
	Anthracene (ug/L)	< 0.01	< 0.01
	Benz (a) anthracene (ug/L)	< 0.01	< 0.01
	Benzo (a) pyrene (ug/L)	< 0.01	< 0.01
	Benzo (b) fluoranthene (ug/L)	< 0.05	< 0.05
	Benzo (b+j) fluoranthene (ug/L)	< 0.05	< 0.05
	Benzo (g,h,i) perylene (ug/L)	< 0.05	< 0.05
	Benzo (k) fluoranthene (ug/L)	< 0.05	< 0.05
	Chrysene (ug/L)	< 0.05	< 0.05
	Dibenz (a,h) anthracene (ug/L)	< 0.05	< 0.05
	Fluoranthene (ug/L)	< 0.03	< 0.03
	Fluorene (ug/L)	< 0.05	< 0.05
	Indeno (1,2,3-cd) pyrene (ug/L)	< 0.05	< 0.05
	Naphthalene (ug/L)	< 0.20	< 0.20
	Phenanthrene (ug/L)	< 0.10	< 0.10
	Pyrene (ug/L)	< 0.02	< 0.02
	Quinoline (ug/L)	< 0.05	< 0.05
	Sur: Acridine-d9 (%)	80	72
	Sur: Naphthalene-d8 (%)	87	83
Sur: Perylene-d12 (%)	92	88	
Volatile Organic Compounds (VOC)	Benzene (ug/L)	< 0.5	< 0.5
	Bromodichloromethane (ug/L)	< 1.0	< 1.0
	Bromoform (ug/L)	< 1.0	< 1.0
	Bromomethane (ug/L)	< 2.0	< 2.0
	Carbon tetrachloride (ug/L)	< 0.5	< 0.5
	Chlorobenzene (ug/L)	< 1.0	< 1.0
	Chloroethane (ug/L)	< 2.0	< 2.0
	Chloroform (ug/L)	< 1.0	< 1.0

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6121816  
2017-01-09

		6121816-01	6121816-02
		Water	Water
		2016-12-29	2016-12-29
		1-WEIR	2-SW1
Volatile Organic Compounds (VOC)	Chloromethane (ug/L)	< 2.0	< 2.0
	Dibromochloromethane (ug/L)	< 1.0	< 1.0
	1,2-Dibromoethane (ug/L)	< 0.2	< 0.2
	Dibromomethane (ug/L)	< 1.0	< 1.0
	1,2-Dichlorobenzene (ug/L)	< 0.5	< 0.5
	1,3-Dichlorobenzene (ug/L)	< 1.0	< 1.0
	1,4-Dichlorobenzene (ug/L)	< 1.0	< 1.0
	1,1-Dichloroethane (ug/L)	< 1.0	< 1.0
	1,2-Dichloroethane (ug/L)	< 1.0	< 1.0
	1,1-Dichloroethene (ug/L)	< 1.0	< 1.0
	cis-1,2-Dichloroethene (ug/L)	< 1.0	< 1.0
	trans-1,2-Dichloroethene (ug/L)	< 1.0	< 1.0
	1,2-Dichloropropane (ug/L)	< 1.0	< 1.0
	cis-1,3-Dichloropropene (ug/L)	< 1.0	< 1.0
	trans-1,3-Dichloropropene (ug/L)	< 1.0	< 1.0
	Ethylbenzene (ug/L)	< 1.0	< 1.0
	Methyl tert-butyl ether (ug/L)	< 1.0	< 1.0
	Methylene chloride (ug/L)	< 3.0	< 3.0
	Styrene (ug/L)	< 1.0	< 1.0
	1,1,1,2-Tetrachloroethane (ug/L)	< 1.0	< 1.0
	1,1,2,2-Tetrachloroethane (ug/L)	< 0.5	< 0.5
	Tetrachloroethene (ug/L)	< 1.0	< 1.0
	Toluene (ug/L)	< 1.0	< 1.0
	1,1,1-Trichloroethane (ug/L)	< 1.0	< 1.0
	1,1,2-Trichloroethane (ug/L)	< 1.0	< 1.0
	Trichloroethene (ug/L)	< 1.0	< 1.0
	Trichlorofluoromethane (ug/L)	< 1.0	< 1.0
	Vinyl chloride (ug/L)	< 1.0	< 1.0
	Xylenes (total) (ug/L)	< 2.0	< 2.0
	Sur: Toluene-d8 (%)	108	106
	Sur: 4-Bromofluorobenzene (%)	99	95
	Sur: 1,4-Dichlorobenzene-d4 (%)	104	99

<p><b>Client Information</b></p> <p>Allterra Construction 2158 Millstream Road Victoria BC V9B 6H4 Phone: (250) 508-0726</p>	<p><b>Project Information</b></p> <p>SIRM 460 Stebbings Number: [none] Sample count: 2 TAT: 5</p>	<p><b>Laboratory Information</b></p> <p>CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599</p>	<p><b>COC Information</b></p> <p>Number: 20161229-B Shipped via: Harbour Air</p>
--	---	---	--

#1	<p>1-WEIR (Template: 01) 12/29/2016 13:45 Grab / Water</p>	<p style="text-align: center;"><b>Analyses</b></p> <p>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 (KEL) TAT: 5 Glycols in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg &amp; Low (RMD) TAT: 5 Mercury, total CVAFS Reg &amp; Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5     Comments: Chromium Speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5</p>	<p style="text-align: center;"><b>Containers</b></p> <p>C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)</p>
#2	<p>2-SW1 (Template: 01) 12/29/2016 14:00 Grab / Water</p>	<p style="text-align: center;"><b>Analyses</b></p> <p>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 (KEL) TAT: 5 Glycols in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg &amp; Low (RMD) TAT: 5 Mercury, total CVAFS Reg &amp; Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5     Comments: Chromium Speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5</p>	<p style="text-align: center;"><b>Containers</b></p> <p>C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)</p>

Relinquished by	Date/Time	Accepted by	Date/Time

<b>Client Information</b> Allterra Construction 2158 Millstream Road Victoria BC V9B 6H4 Phone: (250) 508-0726	<b>Project Information</b> SIRM 460 Stebbings Number: [none] Sample count: 2 TAT: 5	<b>Laboratory Information</b> CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	<b>COC Information</b> Number: 20161229-B Shipped via: Harbour Air
--	---	--	--

#1	1-WEIR (Template: 01) 12/29/2016 13:45 Grab / Water	<p style="text-align: center;"><b>Analyses</b></p> 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 (KEL) TAT: 5 Glycols 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 Comments: Chromium Speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	<p style="text-align: center;"><b>Containers</b></p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)
#2	2-SW1 (Template: 01) 12/29/2016 14:00 Grab / Water	<p style="text-align: center;"><b>Analyses</b></p> 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 (KEL) TAT: 5 Glycols 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 Comments: Chromium Speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	<p style="text-align: center;"><b>Containers</b></p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)



Time	Accepted by	Date/Time
	NOVEX TC	12/30
	9.9°C	14:00