



## CERTIFICATE OF ANALYSIS

**REPORTED TO** SION Improvement District  
7920 Donaldson Drive  
GRAND FORKS, BC V0H 1H2

**ATTENTION** Dan Koochin

**PO NUMBER**

**PROJECT** Comprehensive Drinking Water

**PROJECT INFO**

**WORK ORDER** 21B2721

**RECEIVED / TEMP** 2021-02-25 09:20 / 5°C

**REPORTED** 2021-03-04 10:08

**COC NUMBER** 40837.5581

**Introduction:**

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

*Big Picture Sidekicks*



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

*We've Got Chemistry*



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

*Ahead of the Curve*

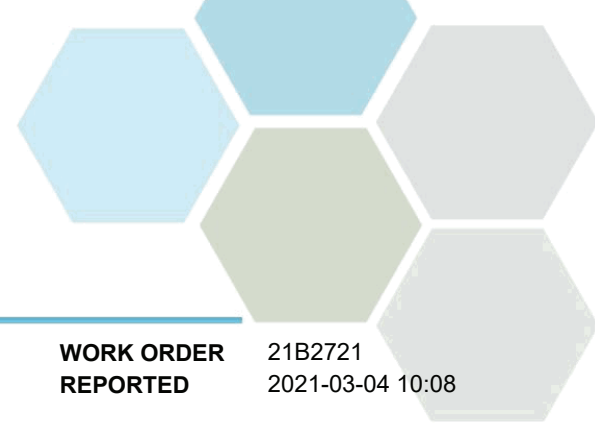


Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

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

**Authorized By:**

Team CARO  
Client Service Representative

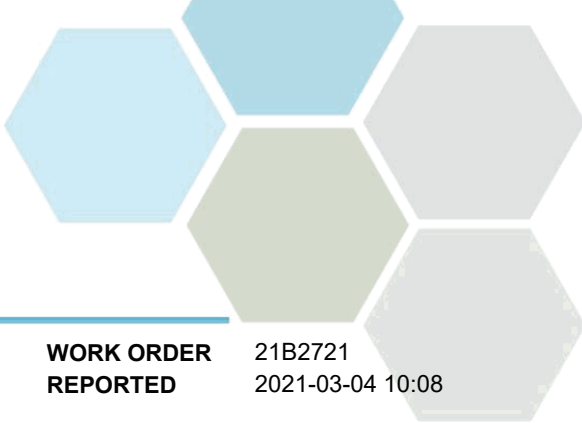


# TEST RESULTS

**REPORTED TO PROJECT** SION Improvement District  
Comprehensive Drinking Water

**WORK ORDER REPORTED** 21B2721  
2021-03-04 10:08

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
<b>6140 Community Centre Road (21B2721-01)   Matrix: Water   Sampled: 2021-02-24 10:30</b>					
<b>Anions</b>					
Chloride	1.74	AO ≤ 250	0.10 mg/L	2021-02-26	
Fluoride	0.24	MAC = 1.5	0.10 mg/L	2021-02-26	
Nitrate (as N)	0.073	MAC = 10	0.010 mg/L	2021-02-26	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2021-02-26	
Sulfate	9.1	AO ≤ 500	1.0 mg/L	2021-02-26	
<b>Calculated Parameters</b>					
Hardness, Total (as CaCO3)	88.7	None Required	0.500 mg/L	N/A	
Langelier Index	-0.2	N/A	-5.0	2021-03-04	
Solids, Total Dissolved	121	AO ≤ 500	1.00 mg/L	N/A	
<b>General Parameters</b>					
Alkalinity, Total (as CaCO3)	117	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Bicarbonate (as CaCO3)	117	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-03-01	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2021-02-25	
Conductivity (EC)	195	N/A	2.0 µS/cm	2021-03-01	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2021-03-01	
pH	7.76	7.0-10.5	0.10 pH units	2021-03-01	HT2
Temperature, at pH	21.5	N/A	°C	2021-03-01	HT2
Turbidity	0.13	OG < 1	0.10 NTU	2021-02-26	
<b>Microbiological Parameters</b>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2021-02-25	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2021-02-25	
<b>Total Metals</b>					
Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2021-03-02	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2021-03-02	
Arsenic, total	0.00123	MAC = 0.01	0.00050 mg/L	2021-03-02	
Barium, total	0.0086	MAC = 2	0.0050 mg/L	2021-03-02	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2021-03-02	
Cadmium, total	0.000059	MAC = 0.005	0.000010 mg/L	2021-03-02	
Calcium, total	27.6	None Required	0.20 mg/L	2021-03-02	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2021-03-02	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2021-03-02	
Copper, total	0.00393	MAC = 2	0.00040 mg/L	2021-03-02	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2021-03-02	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2021-03-02	
Magnesium, total	4.77	None Required	0.010 mg/L	2021-03-02	
Manganese, total	0.00232	MAC = 0.12	0.00020 mg/L	2021-03-02	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2021-03-02	



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Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
<b>6140 Community Centre Road (21B2721-01)   Matrix: Water   Sampled: 2021-02-24 10:30, Continued</b>					
<i>Total Metals, Continued</i>					
Molybdenum, total	0.00188	N/A	0.00010 mg/L	2021-03-02	
Nickel, total	< 0.00040	N/A	0.00040 mg/L	2021-03-02	
Potassium, total	0.97	N/A	0.10 mg/L	2021-03-02	
Selenium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2021-03-02	
Sodium, total	4.61	AO ≤ 200	0.10 mg/L	2021-03-02	
Strontium, total	0.264	7	0.0010 mg/L	2021-03-02	
Uranium, total	0.00129	MAC = 0.02	0.000020 mg/L	2021-03-02	
Zinc, total	0.0672	AO ≤ 5	0.0040 mg/L	2021-03-02	

### Hardy Mountain Toad (21B2721-02) | Matrix: Water | Sampled: 2021-02-24 11:00

#### Anions

Chloride	2.87	AO ≤ 250	0.10 mg/L	2021-02-27	
Fluoride	0.51	MAC = 1.5	0.10 mg/L	2021-02-27	
Nitrate (as N)	0.986	MAC = 10	0.010 mg/L	2021-02-27	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2021-02-27	
Sulfate	53.6	AO ≤ 500	1.0 mg/L	2021-02-27	

#### Calculated Parameters

Hardness, Total (as CaCO <sub>3</sub> )	254	None Required	0.500 mg/L	N/A	
Langelier Index	0.8	N/A	-5.0	2021-03-04	
Solids, Total Dissolved	321	AO ≤ 500	1.00 mg/L	N/A	

#### General Parameters

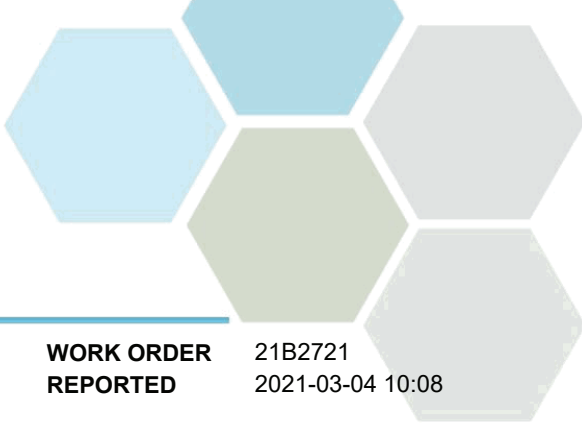
Alkalinity, Total (as CaCO <sub>3</sub> )	264	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Phenolphthalein (as CaCO <sub>3</sub> )	< 1.0	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	264	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	< 1.0	N/A	1.0 mg/L	2021-03-01	
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	< 1.0	N/A	1.0 mg/L	2021-03-01	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2021-02-25	
Conductivity (EC)	513	N/A	2.0 μS/cm	2021-03-01	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2021-03-01	
pH	7.95	7.0-10.5	0.10 pH units	2021-03-01	HT2
Temperature, at pH	22.0	N/A	°C	2021-03-01	HT2
Turbidity	0.66	OG < 1	0.10 NTU	2021-02-26	

#### Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2021-02-25	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2021-02-25	

#### Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2021-03-02	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2021-03-02	
Arsenic, total	0.00090	MAC = 0.01	0.00050 mg/L	2021-03-02	



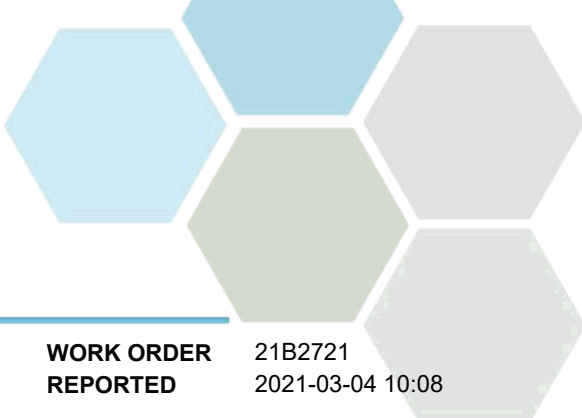
# TEST RESULTS

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Comprehensive Drinking Water

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2021-03-04 10:08

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
<b>Hardy Mountain Toad (21B2721-02)   Matrix: Water   Sampled: 2021-02-24 11:00, Continued</b>					
<i>Total Metals, Continued</i>					
Barium, total	0.0609	MAC = 2	0.0050 mg/L	2021-03-02	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2021-03-02	
Cadmium, total	0.000012	MAC = 0.005	0.000010 mg/L	2021-03-02	
Calcium, total	68.0	None Required	0.20 mg/L	2021-03-02	
Chromium, total	0.00076	MAC = 0.05	0.00050 mg/L	2021-03-02	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2021-03-02	
Copper, total	0.00075	MAC = 2	0.00040 mg/L	2021-03-02	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2021-03-02	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2021-03-02	
Magnesium, total	20.5	None Required	0.010 mg/L	2021-03-02	
Manganese, total	0.00553	MAC = 0.12	0.00020 mg/L	2021-03-02	
Mercury, total	< 0.000040	MAC = 0.001	0.000040 mg/L	2021-03-02	
Molybdenum, total	0.00506	N/A	0.00010 mg/L	2021-03-02	
Nickel, total	< 0.00040	N/A	0.00040 mg/L	2021-03-02	
Potassium, total	2.35	N/A	0.10 mg/L	2021-03-02	
Selenium, total	0.0160	MAC = 0.05	0.00050 mg/L	2021-03-02	
Sodium, total	8.17	AO ≤ 200	0.10 mg/L	2021-03-02	
Strontium, total	0.614	7	0.0010 mg/L	2021-03-02	
Uranium, total	0.00637	MAC = 0.02	0.000020 mg/L	2021-03-02	
Zinc, total	0.0060	AO ≤ 5	0.0040 mg/L	2021-03-02	

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



## APPENDIX 1: SUPPORTING INFORMATION

**REPORTED TO PROJECT** SION Improvement District  
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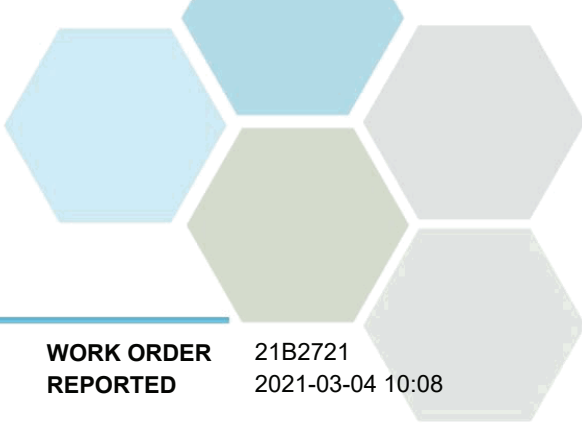
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Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2017)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2017)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9222* (2017)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Colour, True in Water	SM 2120 C (2017)	Spectrophotometry (456 nm)	✓	Kelowna
Conductivity in Water	SM 2510 B (2017)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
E. coli in Water	SM 9222* (2017)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Hardness in Water	SM 2340 B* (2017)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Langelier Index in Water	SM 2330 B (2017)	Calculation		N/A
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
pH in Water	SM 4500-H+ B (2017)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2017)	SM 1030 E (2011)		N/A
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2017)	Nephelometry	✓	Kelowna

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

### Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CU	Colour Units (referenced against a platinum cobalt standard)
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
pH units	pH < 7 = acidic, pH > 7 = basic
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association



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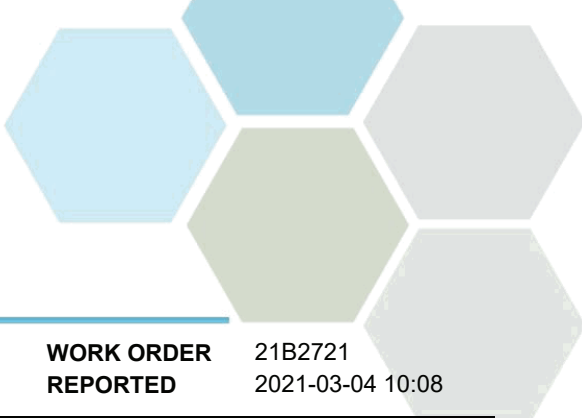
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**General Comments:**

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 or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

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

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



## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** SION Improvement District  
Comprehensive Drinking Water

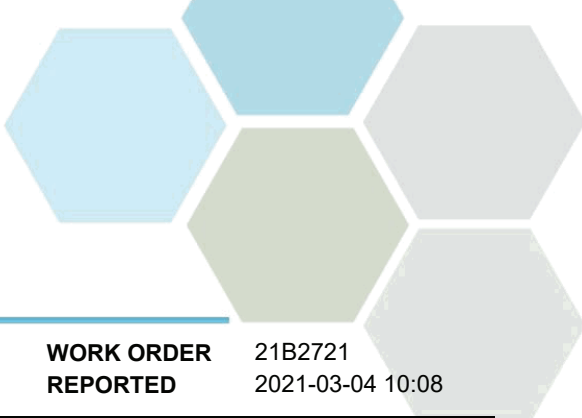
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC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

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

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

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>Anions, Batch B1B2419</b>									
<b>Blank (B1B2419-BLK1)</b>			Prepared: 2021-02-26, Analyzed: 2021-02-26						
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							
<b>Blank (B1B2419-BLK2)</b>			Prepared: 2021-02-27, Analyzed: 2021-02-27						
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							
<b>LCS (B1B2419-BS1)</b>			Prepared: 2021-02-26, Analyzed: 2021-02-26						
Chloride	16.1	0.10 mg/L	16.0		101	90-110			
Fluoride	3.99	0.10 mg/L	4.00		100	88-108			
Nitrate (as N)	4.03	0.010 mg/L	4.00		101	90-110			
Nitrite (as N)	1.86	0.010 mg/L	2.00		93	85-115			
Sulfate	15.9	1.0 mg/L	16.0		100	90-110			
<b>LCS (B1B2419-BS2)</b>			Prepared: 2021-02-27, Analyzed: 2021-02-27						
Chloride	16.1	0.10 mg/L	16.0		101	90-110			
Fluoride	3.97	0.10 mg/L	4.00		99	88-108			
Nitrate (as N)	4.06	0.010 mg/L	4.00		102	90-110			
Nitrite (as N)	1.89	0.010 mg/L	2.00		94	85-115			
Sulfate	16.0	1.0 mg/L	16.0		100	90-110			
<b>General Parameters, Batch B1B2433</b>									
<b>Blank (B1B2433-BLK1)</b>			Prepared: 2021-02-25, Analyzed: 2021-02-25						
Colour, True	< 5.0	5.0 CU							
<b>LCS (B1B2433-BS1)</b>			Prepared: 2021-02-25, Analyzed: 2021-02-25						
Colour, True	20	5.0 CU	20.0		101	85-115			

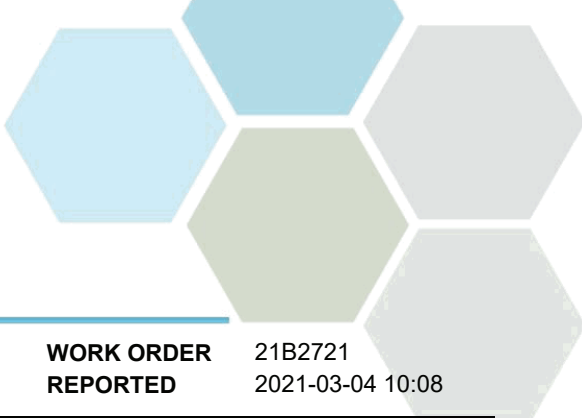


## APPENDIX 2: QUALITY CONTROL RESULTS

<b>REPORTED TO PROJECT</b>	SION Improvement District Comprehensive Drinking Water	<b>WORK ORDER REPORTED</b>	21B2721 2021-03-04 10:08
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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>General Parameters, Batch B1B2442</b>									
<b>Blank (B1B2442-BLK1)</b>			Prepared: 2021-02-26, Analyzed: 2021-02-26						
Turbidity	< 0.10	0.10 NTU							
<b>LCS (B1B2442-BS1)</b>			Prepared: 2021-02-26, Analyzed: 2021-02-26						
Turbidity	38.6	0.10 NTU	40.0		96	90-110			
<b>General Parameters, Batch B1C0003</b>									
<b>Blank (B1C0003-BLK1)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Cyanide, Total	< 0.0020	0.0020 mg/L							
<b>Blank (B1C0003-BLK2)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Cyanide, Total	< 0.0020	0.0020 mg/L							
<b>LCS (B1C0003-BS1)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Cyanide, Total	0.0186	0.0020 mg/L	0.0200		93	82-120			
<b>LCS (B1C0003-BS2)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Cyanide, Total	0.0171	0.0020 mg/L	0.0200		85	82-120			
<b>LCS Dup (B1C0003-BSD1)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Cyanide, Total	0.0189	0.0020 mg/L	0.0200		94	82-120	1	10	
<b>LCS Dup (B1C0003-BSD2)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Cyanide, Total	0.0175	0.0020 mg/L	0.0200		87	82-120	2	10	
<b>General Parameters, Batch B1C0077</b>									
<b>Blank (B1C0077-BLK1)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Alkalinity, Total (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
<b>Blank (B1C0077-BLK2)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Alkalinity, Total (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
<b>LCS (B1C0077-BS1)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Alkalinity, Total (as CaCO3)	108	1.0 mg/L	100		108	80-120			
<b>LCS (B1C0077-BS2)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Alkalinity, Total (as CaCO3)	111	1.0 mg/L	100		111	80-120			
<b>LCS (B1C0077-BS3)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Conductivity (EC)	1460	2.0 µS/cm	1410		104	95-104			
<b>LCS (B1C0077-BS4)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
Conductivity (EC)	1420	2.0 µS/cm	1410		101	95-104			
<b>Reference (B1C0077-SRM1)</b>			Prepared: 2021-03-01, Analyzed: 2021-03-01						
pH	6.97	0.10 pH units	7.01		99	98-102			





## APPENDIX 2: QUALITY CONTROL RESULTS

<b>REPORTED TO PROJECT</b>	SION Improvement District Comprehensive Drinking Water	<b>WORK ORDER REPORTED</b>	21B2721 2021-03-04 10:08
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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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**General Parameters, Batch B1C0077, Continued**

<b>Reference (B1C0077-SRM2)</b>				Prepared: 2021-03-01, Analyzed: 2021-03-01					
pH	6.97	0.10 pH units	7.01	99	98-102				

**Microbiological Parameters, Batch B1B2366**

<b>Blank (B1B2366-BLK1)</b>				Prepared: 2021-02-25, Analyzed: 2021-02-25					
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Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							

<b>Blank (B1B2366-BLK2)</b>				Prepared: 2021-02-25, Analyzed: 2021-02-25					
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Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							

<b>Blank (B1B2366-BLK3)</b>				Prepared: 2021-02-25, Analyzed: 2021-02-25					
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Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							

<b>Blank (B1B2366-BLK4)</b>				Prepared: 2021-02-25, Analyzed: 2021-02-25					
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Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							

<b>Blank (B1B2366-BLK5)</b>				Prepared: 2021-02-25, Analyzed: 2021-02-25					
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Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							

<b>Blank (B1B2366-BLK6)</b>				Prepared: 2021-02-25, Analyzed: 2021-02-25					
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Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							

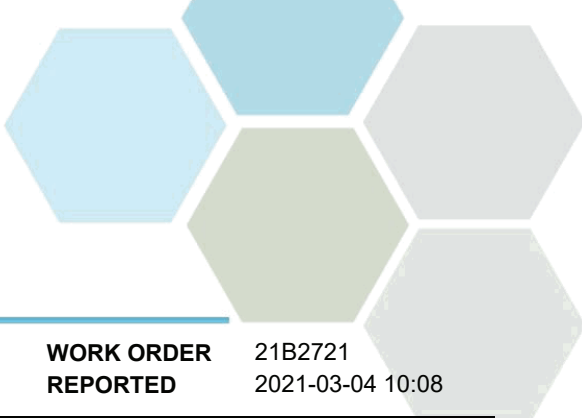
<b>Duplicate (B1B2366-DUP5)</b>				<b>Source: 21B2721-01</b>		Prepared: 2021-02-25, Analyzed: 2021-02-25			
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Coliforms, Total	< 1	1 CFU/100 mL		< 1					82
E. coli	< 1	1 CFU/100 mL		< 1					104

**Total Metals, Batch B1B2649**

<b>Blank (B1B2649-BLK1)</b>				Prepared: 2021-02-28, Analyzed: 2021-03-02					
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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							
Boron, total	< 0.0500	0.0500 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							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Mercury, total	< 0.000040	0.000040 mg/L							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 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** SION Improvement District  
Comprehensive Drinking Water

**WORK ORDER REPORTED** 21B2721  
2021-03-04 10:08

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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**Total Metals, Batch B1B2649, Continued**

**Blank (B1B2649-BLK1), Continued**

Prepared: 2021-02-28, Analyzed: 2021-03-02

Uranium, total	< 0.000020	0.000020 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							

**Blank (B1B2649-BLK2)**

Prepared: 2021-02-28, Analyzed: 2021-03-02

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							
Boron, total	< 0.0500	0.0500 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							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Mercury, total	< 0.000040	0.000040 mg/L							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							

**LCS (B1B2649-BS1)**

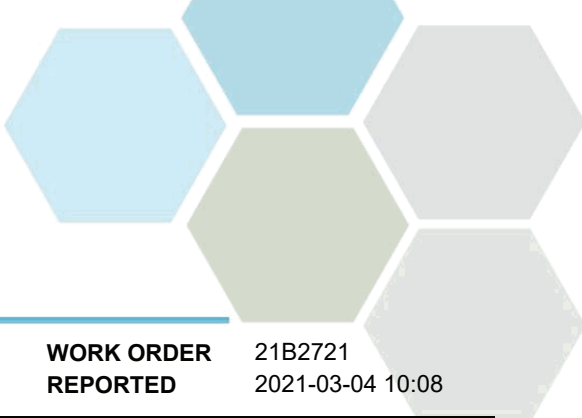
Prepared: 2021-02-28, Analyzed: 2021-03-02

Aluminum, total	0.0222	0.0050 mg/L	0.0199		111	80-120			
Antimony, total	0.0210	0.00020 mg/L	0.0200		105	80-120			
Arsenic, total	0.0198	0.00050 mg/L	0.0200		99	80-120			
Barium, total	0.0198	0.0050 mg/L	0.0198		100	80-120			
Boron, total	< 0.0500	0.0500 mg/L	0.0200		98	80-120			
Cadmium, total	0.0204	0.000010 mg/L	0.0199		102	80-120			
Calcium, total	1.88	0.20 mg/L	2.02		93	80-120			
Chromium, total	0.0200	0.00050 mg/L	0.0198		101	80-120			
Cobalt, total	0.0204	0.00010 mg/L	0.0199		102	80-120			
Copper, total	0.0205	0.00040 mg/L	0.0200		103	80-120			
Lead, total	0.0202	0.00020 mg/L	0.0199		101	80-120			
Magnesium, total	2.11	0.010 mg/L	2.02		104	80-120			
Manganese, total	0.0199	0.00020 mg/L	0.0199		100	80-120			
Mercury, total	0.00111	0.000040 mg/L	0.00100		111	80-120			
Molybdenum, total	0.0192	0.00010 mg/L	0.0200		96	80-120			
Nickel, total	0.0201	0.00040 mg/L	0.0200		100	80-120			
Potassium, total	1.99	0.10 mg/L	2.02		99	80-120			
Selenium, total	0.0200	0.00050 mg/L	0.0200		100	80-120			
Sodium, total	2.17	0.10 mg/L	2.02		107	80-120			
Strontium, total	0.0202	0.0010 mg/L	0.0200		101	80-120			
Uranium, total	0.0198	0.000020 mg/L	0.0200		99	80-120			
Zinc, total	0.0216	0.0040 mg/L	0.0200		108	80-120			

**LCS (B1B2649-BS2)**

Prepared: 2021-02-28, Analyzed: 2021-03-02

Aluminum, total	0.0229	0.0050 mg/L	0.0199		115	80-120			
Antimony, total	0.0218	0.00020 mg/L	0.0200		109	80-120			
Arsenic, total	0.0205	0.00050 mg/L	0.0200		103	80-120			
Barium, total	0.0207	0.0050 mg/L	0.0198		105	80-120			



## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** SION Improvement District  
Comprehensive Drinking Water

**WORK ORDER REPORTED** 21B2721  
2021-03-04 10:08

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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**Total Metals, Batch B1B2649, Continued**

**LCS (B1B2649-BS2), Continued**

Prepared: 2021-02-28, Analyzed: 2021-03-02

Boron, total	< 0.0500	0.0500 mg/L	0.0200		103	80-120			
Cadmium, total	0.0210	0.000010 mg/L	0.0199		105	80-120			
Calcium, total	1.90	0.20 mg/L	2.02		94	80-120			
Chromium, total	0.0208	0.00050 mg/L	0.0198		105	80-120			
Cobalt, total	0.0214	0.00010 mg/L	0.0199		107	80-120			
Copper, total	0.0212	0.00040 mg/L	0.0200		106	80-120			
Lead, total	0.0203	0.00020 mg/L	0.0199		102	80-120			
Magnesium, total	2.09	0.010 mg/L	2.02		104	80-120			
Manganese, total	0.0205	0.00020 mg/L	0.0199		103	80-120			
Mercury, total	0.00111	0.000040 mg/L	0.00100		111	80-120			
Molybdenum, total	0.0202	0.00010 mg/L	0.0200		101	80-120			
Nickel, total	0.0209	0.00040 mg/L	0.0200		104	80-120			
Potassium, total	2.02	0.10 mg/L	2.02		100	80-120			
Selenium, total	0.0204	0.00050 mg/L	0.0200		102	80-120			
Sodium, total	2.18	0.10 mg/L	2.02		108	80-120			
Strontium, total	0.0213	0.0010 mg/L	0.0200		107	80-120			
Uranium, total	0.0202	0.000020 mg/L	0.0200		101	80-120			
Zinc, total	0.0215	0.0040 mg/L	0.0200		107	80-120			

**Duplicate (B1B2649-DUP2)**

Source: 21B2721-01

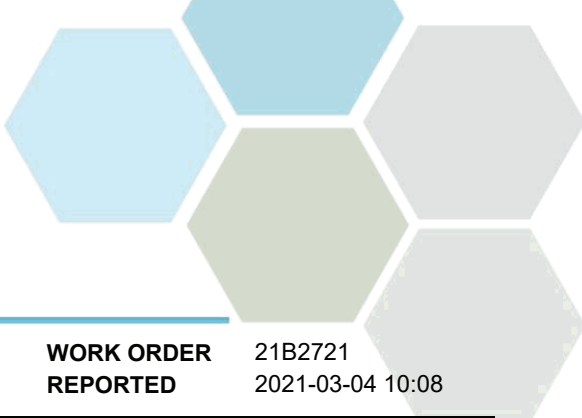
Prepared: 2021-02-28, Analyzed: 2021-03-02

Aluminum, total	< 0.0050	0.0050 mg/L	< 0.0050						20
Antimony, total	< 0.00020	0.00020 mg/L	< 0.00020						20
Arsenic, total	0.00133	0.00050 mg/L	0.00123						20
Barium, total	0.0091	0.0050 mg/L	0.0086						20
Boron, total	< 0.0500	0.0500 mg/L	< 0.0500						20
Cadmium, total	0.000047	0.000010 mg/L	0.000059				22		20
Calcium, total	27.4	0.20 mg/L	27.6				< 1		20
Chromium, total	< 0.00050	0.00050 mg/L	< 0.00050						20
Cobalt, total	< 0.00010	0.00010 mg/L	< 0.00010						20
Copper, total	0.00417	0.00040 mg/L	0.00393				6		20
Iron, total	< 0.010	0.010 mg/L	< 0.010						20
Lead, total	< 0.00020	0.00020 mg/L	< 0.00020						20
Magnesium, total	4.91	0.010 mg/L	4.77				3		20
Manganese, total	0.00198	0.00020 mg/L	0.00232				16		20
Mercury, total	< 0.000040	0.000040 mg/L	< 0.000040						20
Molybdenum, total	0.00182	0.00010 mg/L	0.00188				3		20
Nickel, total	< 0.00040	0.00040 mg/L	< 0.00040						20
Potassium, total	1.00	0.10 mg/L	0.97				3		20
Selenium, total	< 0.00050	0.00050 mg/L	< 0.00050						20
Sodium, total	4.70	0.10 mg/L	4.61				2		20
Strontium, total	0.272	0.0010 mg/L	0.264				3		20
Uranium, total	0.00128	0.000020 mg/L	0.00129				< 1		20
Zinc, total	0.0694	0.0040 mg/L	0.0672				3		20

**Reference (B1B2649-SRM1)**

Prepared: 2021-02-28, Analyzed: 2021-03-02

Aluminum, total	0.305	0.0050 mg/L	0.299		102	70-130			
Antimony, total	0.0533	0.00020 mg/L	0.0517		103	70-130			
Arsenic, total	0.125	0.00050 mg/L	0.119		105	70-130			
Barium, total	0.788	0.0050 mg/L	0.801		98	70-130			
Boron, total	3.84	0.0500 mg/L	4.11		93	70-130			
Cadmium, total	0.0505	0.000010 mg/L	0.0503		100	70-130			
Calcium, total	9.71	0.20 mg/L	10.7		91	70-130			
Chromium, total	0.255	0.00050 mg/L	0.250		102	70-130			
Cobalt, total	0.0404	0.00010 mg/L	0.0384		105	70-130			
Copper, total	0.504	0.00040 mg/L	0.487		103	70-130			
Iron, total	0.510	0.010 mg/L	0.504		101	70-130			
Lead, total	0.278	0.00020 mg/L	0.278		100	70-130			



## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** SION Improvement District  
Comprehensive Drinking Water

**WORK ORDER REPORTED** 21B2721  
2021-03-04 10:08

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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**Total Metals, Batch B1B2649, Continued**

**Reference (B1B2649-SRM1), Continued**

Prepared: 2021-02-28, Analyzed: 2021-03-02

Magnesium, total	3.77	0.010 mg/L	3.59		105	70-130			
Manganese, total	0.108	0.00020 mg/L	0.111		97	70-130			
Mercury, total	0.00634	0.000040 mg/L	0.00581		109	70-130			
Molybdenum, total	0.200	0.00010 mg/L	0.196		102	70-130			
Nickel, total	0.253	0.00040 mg/L	0.248		102	70-130			
Potassium, total	6.22	0.10 mg/L	5.89		106	70-130			
Selenium, total	0.120	0.00050 mg/L	0.120		100	70-130			
Sodium, total	9.03	0.10 mg/L	8.71		104	70-130			
Strontium, total	0.403	0.0010 mg/L	0.393		103	70-130			
Uranium, total	0.0343	0.000020 mg/L	0.0344		100	70-130			
Zinc, total	2.48	0.0040 mg/L	2.50		99	70-130			

**Reference (B1B2649-SRM2)**

Prepared: 2021-02-28, Analyzed: 2021-03-02

Aluminum, total	0.303	0.0050 mg/L	0.299		101	70-130			
Antimony, total	0.0544	0.00020 mg/L	0.0517		105	70-130			
Arsenic, total	0.127	0.00050 mg/L	0.119		107	70-130			
Barium, total	0.803	0.0050 mg/L	0.801		100	70-130			
Boron, total	3.92	0.0500 mg/L	4.11		95	70-130			
Cadmium, total	0.0518	0.000010 mg/L	0.0503		103	70-130			
Calcium, total	9.92	0.20 mg/L	10.7		93	70-130			
Chromium, total	0.257	0.00050 mg/L	0.250		103	70-130			
Cobalt, total	0.0406	0.00010 mg/L	0.0384		106	70-130			
Copper, total	0.519	0.00040 mg/L	0.487		107	70-130			
Iron, total	0.511	0.010 mg/L	0.504		101	70-130			
Lead, total	0.283	0.00020 mg/L	0.278		102	70-130			
Magnesium, total	3.77	0.010 mg/L	3.59		105	70-130			
Manganese, total	0.110	0.00020 mg/L	0.111		99	70-130			
Mercury, total	0.00645	0.000040 mg/L	0.00581		111	70-130			
Molybdenum, total	0.201	0.00010 mg/L	0.196		103	70-130			
Nickel, total	0.257	0.00040 mg/L	0.248		104	70-130			
Potassium, total	6.27	0.10 mg/L	5.89		107	70-130			
Selenium, total	0.121	0.00050 mg/L	0.120		101	70-130			
Sodium, total	9.06	0.10 mg/L	8.71		104	70-130			
Strontium, total	0.418	0.0010 mg/L	0.393		106	70-130			
Uranium, total	0.0349	0.000020 mg/L	0.0344		101	70-130			
Zinc, total	2.50	0.0040 mg/L	2.50		100	70-130			

**Total Metals, Batch B1C0154**

**Blank (B1C0154-BLK1)**

Prepared: 2021-03-02, Analyzed: 2021-03-02

Mercury, total	< 0.000010	0.000010 mg/L							
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**Reference (B1C0154-SRM1)**

Prepared: 2021-03-02, Analyzed: 2021-03-02

Mercury, total	0.00616	0.000010 mg/L	0.00581		106	70-130			
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