Drinking Water Quality and Compliance
Town Short Form – A Template for Annual Notice to Consumers
(Note: This short form may be used for communities or waterworks serving a population of less than 5000).

Introduction

The Water Security Agency and the Ministry of Environment requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to Operate a waterworks. The following is a summary of the Town of Shellbrook water quality and sample submission compliance record for the 2022 time period. This report was completed on *June 27th, 2023.* Readers should refer to Water Security Agency's Municipal Drinking Water Quality Monitoring Guidelines, June 2015, EPB 502 for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for a specific waterworks may require more sampling than outlined in the department's monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of Selenium in a water supply", more detailed information is available from: http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html .

Water Quality Standards
Bacteriological Quality

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform	0 Organisms/100 mL	52	52	0
E. coli	0 Organisms/100 mL	52	52	0
Background Bacteria	Less than 200/100 mL	52	52	0

Water Disinfection – Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.15 – 3.34	0.51 – 22.0	52	52	100

Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records- From Water Treatment Plant Records

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.1	0.18 – 6.60	725	0

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are normally performed on a daily basis by the waterworks operator and are to be recorded in operation records. This data includes the number of free chlorine residual tests performed, the overall range of free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Turbidity – From Water Treatment Plant Records

Parameter	Limit (NTU)	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Tests Required	# Tests Performed
Turbidity	1.0	0.06 – 0.38	0	0.38	365	725

Chemical – Health Category

All waterworks serving less than 5000 persons are required to submit water samples for SE's Chemical Health category once every 2 years. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

The last sample for Chemical Health analysis was submitted on (*January 25, 2023*). Sample results indicated that the provincial drinking water quality standards were not exceeded. **(OR)** Samples exceeded provincial water quality standards for the following parameters: (*Chlorate)*

Parameter	Limit MAC(mg/L)	Limit IMAC (mg/L)	Sample Result(s)	# Samples Exceeding Limit	
Arsenic	0.010		0.00050		* Results expressed as average values for communities or waterworks that fluoridate drinking water supplies or those with elevated concentrations of fluoride or nitrates.
Barium	1.0		0.00700		
Boron		5.0	0.828		
Bromate	0.01		<0.00176		
Cadmium	0.005		<0.0000250		
Chlorate	1.0		1.46	Exceed	
Chlorite	1.0		<0.050		
Chromium	0.05		<0.00050		
Fluoride (avg*)	1.5		<0.40		
Lead	0.01		<0.000250		
Nitrate (avg.*)	45.0		<0.400		
Seleniuum	0.01		<0.000250		
Uranium	0.02		0.000177		

Chemical – Trihalomethanes (THMs)and Haloacetic Acids (HAAs)

Parameter	THMs Limit (mg/L)	Sample Result (average)	# Samples Required	# Samples Submitted
Trihalomethanes	0.1	N/A	4 (1 every 3 months)	N/A
Haloacetic Acids	0.08	N/A	4 (1 every 3 months)	N/A

Note: Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for THMs and HAAs. Waterworks using groundwater sources beyond the influence of surface water do not need to report THMs or HAAs since sampling/analysis will not likely have been performed unless otherwise noted in the waterworks permit to operate

General Chemical

Parameter	Aesthetic Objectives * (mg/L)	Sample Results (average)	# Samples Required	# Samples Submitted
Alkalinity	500	363	1	1
Bicarbonate	No Objective	443	1	1
Calcium	No Objective	102	1	1
Carbonate	No Objective	<1.0	1	1
Chloride	250	489	1	1
Conductivity	No Objective	3530	1	1
Hardness	800	443	1	1
Magnesium	200	49.2	1	1
PH	No Objective	7.94	1	1
Sodium	300	705	1	1
Sulphate	500	757	1	1
Total dissolved Solids	1500	2320	1	1

All waterworks serving less than 5000 persons are required to submit water samples for SE's General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as $CaCO_3$), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was required on (2022) and submitted on *(January 25, 2023)* Samples exceeded provincial aesthetic objectives for the General Chemical category for the following parameters: *(Chloride, Sodium, Sulphate and TDS).*

*Objectives apply to certain characteristics of or substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with drinking water aesthetic objectives is not mandatory as these objectives are in the range where they do not constitute a health hazards. The aesthetic objectives for several parameters (including hardness as $CaCO_3$, magnesium, sodium and total dissolved solids) consider regional differences in drinking water sources and quality.

More information on water quality and sample submission performance may be obtained from:

Town of Shellbrook
Box 40, Shellbrook, SK S0J 2E0
(306) 747-4900
townoffice@townofshellbrook.ca

June 2015 *EPB 536D*

BACTERIOLOGICAL SAMPLES 2022

JAN	6	10	17	25	
FEB	2	7	14	22	28
Mar	7	14	21	28	
APR	4	11	18	25	
MAY	2	9	16	24	30
JUN	6	13	20	27	
JUL	5	11	18	26	
AUG	2	9	16	23	30
SEP	6	12	19	26	
OCT	3	11	17	24	31
NOV	7	15	21	29	
DEC	6	12	19	29	

52 samples required – 52 samples submitted

QUALITY CONTROL REPORT

Work Order	: **SK2300078**	Page	: 1 of 3
Client	: Town of Shellbrook	Laboratory	: Saskatoon - Environmental
Contact	: Karlina Cadieu	Account Manager	: Kimberley Head
Address	: 71 Main Street PO Box 40 Shellbrook SK Canada S0J 2E0	Address	: 819 58 Street East Saskatoon, Saskatchewan Canada S7K 6X5
Telephone	:	Telephone	: +1 306 668 8370
Project	: Waterworks Monthly - Bromate	Date Samples Received	: 10-Jan-2023 08:30
PO	: ----	Date Analysis Commenced	: 13-Jan-2023
C-O-C number	: ----	Issue Date	: 16-Jan-2023 09:52
Sampler	: AB 306-747-4900		
Site	: ----		
Quote number	: ----		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Katrina Zwambag	Business Manager - Environmental	Waterloo LCMS, Waterloo, Ontario

CERTIFICATE OF ANALYSIS

Work Order	: **SK2300332**	Page	: 1 of 5
Client	: **Town of Shellbrook**	Laboratory	: Saskatoon - Environmental
Contact	: Karlina Cadieu	Account Manager	: Kimberley Head
Address	: 71 Main Street PO Box 40 Shellbrook SK Canada S0J 2E0	Address	: 819 58 Street East Saskatoon SK Canada S7K 6X5
Telephone	: 306-747-4900	Telephone	: +1 306 668 8370
Project	: Waterworks- Gen Chem/Health & Toxicity	Date Samples Received	: 30-Jan-2023 08:00
PO	: SK05GF0003	Date Analysis Commenced	: 30-Jan-2023
C-O-C number	: ----	Issue Date	: 03-Feb-2023 13:20
Sampler	: AB		
Site	: ----		
Quote number	: ----		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Colby Bingham	Laboratory Supervisor	Inorganics, Saskatoon, Saskatchewan
Colby Bingham	Laboratory Supervisor	Metals, Saskatoon, Saskatchewan
Greg Pokocky	Supervisor - Inorganic	Inorganics, Waterloo, Ontario
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Janiko Lindain	Laboratory Assistant	Metals, Saskatoon, Saskatchewan
Justin Jackson		Metals, Saskatoon, Saskatchewan
Kimberly Hanson	Laboratory Analyst	Metals, Saskatoon, Saskatchewan

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID: SK05GF0003 WTP Routine	----	----	----	----
					Client sampling date / time: 25-Jan-2023 13:35	----	----	----	----
					SK2300332-001	---------	---------	---------	---------
					Result	----	----	----	----
Total Metals									
Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00250 DLDS	----	----	----	----
Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0150 DLDS	----	----	----	----
Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00100 DLDS	----	----	----	----
Dissolved Metals									
Calcium, dissolved	7440-70-2	E421	0.050	mg/L	99.8	----	----	----	----
Iron, dissolved	7439-89-6	E421	0.030	mg/L	<0.050 DLDS	----	----	----	----
Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	47.0	----	----	----	----
Manganese, dissolved	7439-96-5	E421	0.00500	mg/L	0.00626	----	----	----	----
Potassium, dissolved	7440-09-7	E421	0.050	mg/L	14.1	----	----	----	----
Sodium, dissolved	7440-23-5	E421	0.050	mg/L	674	----	----	----	----
Dissolved metals filtration location	----	EP421	-	-	Laboratory SFP	----	----	----	----
Disinfectant By-Products									
Chlorate	14866-68-3	E409.CLO3	0.010	mg/L	1.46 DLDS	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Sub-Matrix: Water

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Total Metals (QC Lot: 818955) - continued											
RG2300081-001	Anonymous	Cobalt, total	7440-48-4	E420	0.00020	mg/L	0.00029	0.00028	0.000004	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00100	mg/L	0.00232	0.00233	0.000008	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.020	mg/L	0.160	0.158	0.002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000100	mg/L	0.00125	0.00126	0.829%	20%	----
		Lithium, total	7439-93-2	E420	0.0020	mg/L	0.0961	0.0937	2.57%	20%	----
		Magnesium, total	7439-95-4	E420	0.0100	mg/L	113	112	0.780%	20%	----
		Manganese, total	7439-96-5	E420	0.00020	mg/L	1.97	2.01	2.25%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000100	mg/L	0.0344	0.0346	0.519%	20%	----
		Nickel, total	7440-02-0	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.100	mg/L	1.71	1.73	0.919%	20%	----
		Potassium, total	7440-09-7	E420	0.100	mg/L	9.43	9.15	2.97%	20%	----
		Rubidium, total	7440-17-7	E420	0.00040	mg/L	0.00195	0.00205	0.00010	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000100	mg/L	0.203	0.202	0.708%	20%	----
		Silicon, total	7440-21-3	E420	0.20	mg/L	11.6	11.2	2.93%	20%	----
		Silver, total	7440-22-4	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.100	mg/L	203	205	1.06%	20%	----
		Strontium, total	7440-24-6	E420	0.00040	mg/L	1.57	1.56	0.633%	20%	----
		Sulfur, total	7704-34-9	E420	1.00	mg/L	518	516	0.430%	20%	----
		Tellurium, total	13494-80-9	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00060	mg/L	<0.00060	<0.00060	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00020	mg/L	0.00032	0.00032	0.000002	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000020	mg/L	0.00215	0.00220	2.36%	20%	----
		Vanadium, total	7440-62-2	E420	0.00100	mg/L	0.00159	0.00150	0.00009	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0060	mg/L	0.0176	0.0180	0.0004	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 820277)											
RG2300079-001	Anonymous	Calcium, dissolved	7440-70-2	E421	2.50	mg/L	544	550	1.18%	20%	----
		Iron, dissolved	7439-89-6	E421	0.500	mg/L	<0.500	<0.500	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.250	mg/L	215	212	1.43%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00500	mg/L	0.918	0.933	1.62%	20%	----
		Potassium, dissolved	7440-09-7	E421	2.50	mg/L	39.2	40.0	2.10%	20%	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND -- Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 818377)										
SK2300332-001	SK05GF0003 WTP Routine	Chloride	16887-00-6	E235.Cl	ND mg/L	100 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 818378)										
SK2300332-001	SK05GF0003 WTP Routine	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 818379)										
SK2300332-001	SK05GF0003 WTP Routine	Fluoride	16984-48-8	E235.F	0.921 mg/L	1 mg/L	92.1	75.0	125	----
Anions and Nutrients (QCLot: 818380)										
SK2300332-001	SK05GF0003 WTP Routine	Nitrate (as N)	14797-55-8	E235.NO3	2.49 mg/L	2.5 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 818381)										
SK2300332-001	SK05GF0003 WTP Routine	Nitrite (as N)	14797-65-0	E235.NO2	0.493 mg/L	0.5 mg/L	98.6	75.0	125	----
Total Metals (QCLot: 818955)										
RG2300081-002	Anonymous	Aluminum, total	7429-90-5	E420	0.198 mg/L	0.2 mg/L	98.8	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0367 mg/L	0.04 mg/L	91.7	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00910 mg/L	0.01 mg/L	91.0	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00994 mg/L	0.01 mg/L	99.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Copper, total	7440-50-8	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Iron, total	7439-89-6	E420	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0868 mg/L	0.1 mg/L	86.8	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0394 mg/L	0.04 mg/L	98.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 818955) - continued										
RG2300081-002	Anonymous	Nickel, total	7440-02-0	E420	0.0394 mg/L	0.04 mg/L	98.5	70.0	130	
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	
		Rubidium, total	7440-17-7	E420	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	
		Selenium, total	7782-49-2	E420	ND mg/L	0.04 mg/L	ND	70.0	130	
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	
		Silver, total	7440-22-4	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	
		Tellurium, total	13494-80-9	E420	0.0442 mg/L	0.04 mg/L	111	70.0	130	
		Thallium, total	7440-28-0	E420	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	
		Thorium, total	7440-29-1	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	
		Tin, total	7440-31-5	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	
		Titanium, total	7440-32-6	E420	0.0457 mg/L	0.04 mg/L	114	70.0	130	
		Tungsten, total	7440-33-7	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	
		Uranium, total	7440-61-1	E420	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	
		Vanadium, total	7440-62-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	
		Zinc, total	7440-66-6	E420	0.387 mg/L	0.4 mg/L	96.8	70.0	130	
		Zirconium, total	7440-67-7	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	
Dissolved Metals (QCLot: 820277)										
SK2300325-001	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	
		Iron, dissolved	7439-89-6	E421	2.13 mg/L	2 mg/L	107	70.0	130	
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 818427)									
pH	---	E108	---	pH units	7 pH units	99 9	98 6	101	
Physical Tests (QCLot: 818428)									
Conductivity	---	E100	1	µS/cm	1000 µS/cm	100	90 0	110	
Physical Tests (QCLot: 818429)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	99 7	85 0	115	
Anions and Nutrients (QCLot: 818377)									
Chloride	16887-00-6	E235 Cl	0.5	mg/L	100 mg/L	100	90 0	110	
Anions and Nutrients (QCLot: 818378)									
Sulfate (as SO4)	14808-79 8	E235 SO4	0 3	mg/L	100 mg/L	102	90 0	110	
Anions and Nutrients (QCLot: 818379)									
Fluoride	16984-48-8	E235 F	0 02	mg/L	1 mg/L	100	90 0	110	
Anions and Nutrients (QCLot: 818380)									
Nitrate (as N)	14797 55-8	E235 NO3	0 02	mg/L	2 5 mg/L	101	90 0	110	
Anions and Nutrients (QCLot: 818381)									
Nitrite (as N)	14797-65-0	E235 NO2	0 01	mg/L	0 5 mg/l	98 6	90 0	110	
Total Metals (QCLot: 818955)									
Aluminum, total	7429-90-5	E420	0 003	mg/L	2 mg/l	106	80 0	120	
Antimony, total	7440-36-0	E420	0 0001	mg/L	1 mg/L	104	80 0	120	
Arsenic, total	7440-38-2	E420	0 0001	mg/l	1 mg/L	109	80 0	120	
Barium, total	7440-39-3	E420	0 0001	mg/L	0 25 mg/L	97 8	80 0	120	
Beryllium, total	7440-41-7	E420	0 00002	mg/L	0 1 mg/L	100	80 0	120	
Bismuth, total	7440-69-9	E420	0 00005	mg/L	1 mg/L	103	80 0	120	
Boron, total	7440-42-8	E420	0 01	mg/l	1 mg/L	97 2	80 0	120	
Cadmium, total	7440-43-9	E420	0 000005	mg/l	0 1 mg/L	103	80 0	120	
Calcium, total	7440-70-2	E420	0 05	mg/L	50 mg/L	101	80 0	120	
Cesium, total	7440 46 2	E420	0 00001	mg/L	0 05 mg/l	103	80 0	120	
Chromium, total	7440-47-3	E420	0 0005	mg/l	0 25 mg/l	104	80 0	120	
Cobalt, total	7440-48-4	E420	0 0001	mg/L	0 25 mg/L	103	80 0	120	
Copper, total	7440 50 8	E420	0 0005	mg/L	0 25 mg/L	104	80 0	120	
Iron, total	7439 89-6	E420	0 01	mg/L	1 mg/L	105	80 0	120	

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 818427)											
SK2300332-001	Anonymous	pH	---	E108	0.10	pH units	7.94	7.94	0.0768%	3%	
Physical Tests (QC Lot: 818428)											
SK2300332-001	Anonymous	Conductivity	---	E100	2.0	µS/cm	3530	3540	0.283%	10%	
Physical Tests (QC Lot: 818429)											
SK2300332-001	Anonymous	Alkalinity, total (as CaCO3)	---	E290	2.0	mg/L	363	368	1.38%	20%	
Anions and Nutrients (QC Lot: 818377)											
SK2300332-001	Anonymous	Chloride	16887-00-6	E235.Cl	10.0	mg/L	489	495	1.34%	20%	
Anions and Nutrients (QC Lot: 818378)											
SK2300332-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	6.00	mg/L	757	761	0.557%	20%	
Anions and Nutrients (QC Lot: 818379)											
SK2300332-001	Anonymous	Fluoride	16984-48-8	E235.F	0.400	mg/L	<0.400	<0.400	0	Diff <2x LOR	
Anions and Nutrients (QC Lot: 818380)											
SK2300332-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.400	mg/L	<0.400	<0.400	0	Diff <2x LOR	
Anions and Nutrients (QC Lot: 818381)											
SK2300332-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.200	mg/L	0.210	0.224	0.014	Diff <2x LOR	
Total Metals (QC Lot: 818955)											
RG2300081-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0060	mg/L	0.0192	0.0178	0.0014	Diff <2x LOR	
		Antimony, total	7440-36-0	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	
		Arsenic, total	7440-38-2	E420	0.00020	mg/L	0.00615	0.00583	5.38%	20%	
		Barium, total	7440-39-3	E420	0.00020	mg/L	0.147	0.144	2.32%	20%	
		Beryllium, total	7440-41-7	E420	0.000040	mg/L	<0.000040	<0.000040	0	Diff <2x LOR	
		Bismuth, total	7440-69-9	E420	0.000100	mg/l	<0.000100	<0.000100	0	Diff <2x LOR	
		Boron, total	7440-42-8	E420	0.020	mg/l	1.03	1.02	1.55%	20%	
		Cadmium, total	7440-43-9	E420	0.0000100	mg/L	0.0000141	0.0000133	0.0000008	Diff <2x LOR	
		Calcium, total	7440-70-2	E420	0.100	mg/L	301	315	4.38%	20%	
		Cesium, total	7440-46-2	E420	0.000020	mg/L	0.000204	0.000222	8.32%	20%	
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00052	<0.00050	0.00002	Diff <2x LOR	
		Cobalt, total	7440-48-4	E420	0.00020	mg/L	0.00029	0.00028	0.000004	Diff <2x LOR	
		Copper, total	7440-50-8	E420	0.00100	mg/l	0.00232	0.00233	0.000008	Diff <2x LOR	
		Iron, total	7439-89-6	E420	0.020	mg/l	0.160	0.158	0.002	Diff <2x LOR	

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID: SK05GF0016 WELL 11	----	----	----	----
					Client sampling date / time: 25-Jan-2023 13:35	----	----	----	----
					SK2300333-001	---------	---------	---------	---------
					Result	----	----	----	----
Total Metals									
Calcium, total	7440-70-2	E420	0.050	mg/L	103	----	----	----	----
Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000050 DLDS	----	----	----	----
Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050 DLDS	----	----	----	----
Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00250 DLDS	----	----	----	----
Iron, total	7439-89-6	E420	0.010	mg/L	2.17	----	----	----	----
Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000250 DLDS	----	----	----	----
Lithium, total	7439-93-2	E420	0.0010	mg/L	0.178	----	----	----	----
Magnesium, total	7439-95-4	E420	0.0050	mg/L	48.5	----	----	----	----
Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0586	----	----	----	----
Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0120	----	----	----	----
Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00250 DLDS	----	----	----	----
Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.250 DLDS	----	----	----	----
Potassium, total	7440-09-7	E420	0.050	mg/L	14.8	----	----	----	----
Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00407	----	----	----	----
Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000250 DLDS	----	----	----	----
Silicon, total	7440-21-3	E420	0.10	mg/L	8.30	----	----	----	----
Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000050 DLDS	----	----	----	----
Sodium, total	7440-23-5	E420	0.050	mg/L	642	----	----	----	----
Strontium, total	7440-24-6	E420	0.00020	mg/L	0.974	----	----	----	----
Sulfur, total	7704-34-9	E420	0.50	mg/L	300	----	----	----	----
Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00100 DLDS	----	----	----	----
Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000050 DLDS	----	----	----	----
Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00150 DLDS	----	----	----	----
Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000165	----	----	----	----
Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00250 DLDS	----	----	----	----
Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0150 DLDS	----	----	----	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

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Canada Toll Free: 1 800 668 9878

Environmental Division
Saskatoon
Work Order Reference
SK2300334

Telephone : +1 306 668 8370

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company	Town of Shellbrook	Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges ap
Contact	Karina Cadieu	Merge QC/QCI Reports with COA: ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surchar
Phone	306-747-4900	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcha
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcha
Street	71 Main Street	Email 1 or Fax: as listed in quote	☐ 1 day [E] if received by 3pm M-F - 100% rush surcha
City/Province	Shellbrook SK	Email 2	☐ Same day [E2] if received by 10am M-S - 200% rush s
Postal Code	S0J 2E0	Email 3	Additional fees may apply to rush requests on w
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Recipients	Date and Time Required for all E&P TATs:
	Copy of invoice with Report ☑ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, p
Company	Town of Shellbrook	Email 1 or Fax: as listed in quote	Analysis
Contact		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #	SK2020GMBK1000001	AFE/Cost Center:	PO#
Job #	Waterworks Gen Chem/Health and Toxicity	Major/Minor Code:	Routing Code
PO / AFE	Station# SK05GF0016	Requisitioner:	
LSD:	5	Location:	

ALS Lab Work Order # (ALS use only): | **ALS Contact:** Kimberley Head | **Sampler:** AB

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	General Chemical	Total Metals	Free Chlorine (mg/L) WTP Field Data	Total Chlorine (mg/L) WTP Field Data	Turbidity (NTU) WTP Field Data	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	SK05GF0016 Well 10	25Jan23	1335	Well Water	2	✓	✓						

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☑ YES ☐ NO	
Are samples for human consumption/ use? ☑ YES ☐ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
1.3					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
[illegible]	Jan 27/23	0910	Jenny	1/30/2023	800			

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FEB 2022 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are [illegible] from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 818427)									
pH	---	E108	---	pH units	7 pH units	99.9	98.6	101	---
Physical Tests (QCLot: 818428)									
Conductivity	---	E100	1	µS/cm	1000 µS/cm	100	90.0	110	---
Physical Tests (QCLot: 818429)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	99.7	85.0	115	---
Anions and Nutrients (QCLot: 818377)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	---
Anions and Nutrients (QCLot: 818378)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	---
Anions and Nutrients (QCLot: 818379)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	100	90.0	110	---
Anions and Nutrients (QCLot: 818380)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	101	90.0	110	---
Anions and Nutrients (QCLot: 818381)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.6	90.0	110	---
Total Metals (QCLot: 818955)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	---
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	---
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	109	80.0	120	---
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	---
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	---
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	103	80.0	120	---
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	97.2	80.0	120	---
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	103	80.0	120	---
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	---
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	103	80.0	120	---
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	---
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	---
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	---
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	105	80.0	120	---

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 818427)											
SK2300332-001	Anonymous	pH	---	E108	0.10	pH units	7.94	7.94	0.0768%	3%	---
Physical Tests (QC Lot: 818428)											
SK2300332-001	Anonymous	Conductivity	---	E100	2.0	µS/cm	3530	3540	0.283%	10%	---
Physical Tests (QC Lot: 818429)											
SK2300332-001	Anonymous	Alkalinity, total (as CaCO3)	---	E290	2.0	mg/L	363	368	1.38%	20%	
Anions and Nutrients (QC Lot: 818377)											
SK2300332-001	Anonymous	Chloride	16887-00-6	E235.Cl	10.0	mg/L	489	495	1.34%	20%	---
Anions and Nutrients (QC Lot: 818378)											
SK2300332-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	6.00	mg/L	757	761	0.557%	20%	---
Anions and Nutrients (QC Lot: 818379)											
SK2300332-001	Anonymous	Fluoride	16984-48-8	E235.F	0.400	mg/L	<0.400	<0.400	0	Diff <2x LOR	---
Anions and Nutrients (QC Lot: 818380)											
SK2300332-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.400	mg/L	<0.400	<0.400	0	Diff <2x LOR	---
Anions and Nutrients (QC Lot: 818381)											
SK2300332-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.200	mg/L	0.210	0.224	0.014	Diff <2x LOR	---
Total Metals (QC Lot: 818955)											
RG2300081-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0060	mg/L	0.0192	0.0178	0.0014	Diff <2x LOR	
		Antimony, total	7440-36-0	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	---
		Arsenic, total	7440-38-2	E420	0.00020	mg/L	0.00615	0.00583	5.38%	20%	---
		Barium, total	7440-39-3	E420	0.00020	mg/L	0.147	0.144	2.32%	20%	---
		Beryllium, total	7440-41-7	E420	0.000040	mg/L	<0.000040	<0.000040	0	Diff <2x LOR	---
		Bismuth, total	7440-69-9	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	---
		Boron, total	7440-42-8	E420	0.020	mg/L	1.03	1.02	1.55%	20%	---
		Cadmium, total	7440-43-9	E420	0.0000100	mg/L	0.0000141	0.0000133	0.0000008	Diff <2x LOR	---
		Calcium, total	7440-70-2	E420	0.100	mg/L	301	315	4.38%	20%	---
		Cesium, total	7440-46-2	E420	0.000020	mg/L	0.000204	0.000222	8.32%	20%	---
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00052	<0.00050	0.00002	Diff <2x LOR	---
		Cobalt, total	7440-48-4	E420	0.00020	mg/L	0.00029	0.00028	0.000004	Diff <2x LOR	---
		Copper, total	7440-50-8	E420	0.00100	mg/L	0.00232	0.00233	0.000008	Diff <2x LOR	---
		Iron, total	7439-89-6	E420	0.020	mg/L	0.160	0.158	0.002	Diff <2x LOR	---

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID: SK05GF0016 WELL 10	----	----	----	----
					Client sampling date / time: 25-Jan-2023 13:35	----	----	----	----
					SK2300334-001	--------	--------	--------	--------
					Result	---	---	---	---
Total Metals									
Calcium, total	7440-70-2	E420	0.050	mg/L	102	----	----	----	----
Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000020 DLDS	----	----	----	----
Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050 DLDS	----	----	----	----
Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00026	----	----	----	----
Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00100 DLDS	----	----	----	----
Iron, total	7439-89-6	E420	0.010	mg/L	1.90	----	----	----	----
Lead, total	7439-92-1	E420	0.000050	mg/L	0.000135	----	----	----	----
Lithium, total	7439-93-2	E420	0.0010	mg/L	0.174	----	----	----	----
Magnesium, total	7439-95-4	E420	0.0050	mg/L	47.1	----	----	----	----
Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0467	----	----	----	----
Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0133	----	----	----	----
Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00121	----	----	----	----
Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.299	----	----	----	----
Potassium, total	7440-09-7	E420	0.050	mg/L	14.5	----	----	----	----
Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00390	----	----	----	----
Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000100 DLDS	----	----	----	----
Silicon, total	7440-21-3	E420	0.10	mg/L	8.30	----	----	----	----
Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000020 DLDS	----	----	----	----
Sodium, total	7440-23-5	E420	0.050	mg/L	617	----	----	----	----
Strontium, total	7440-24-6	E420	0.00020	mg/L	1.00	----	----	----	----
Sulfur, total	7704-34-9	E420	0.50	mg/L	288	----	----	----	----
Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00040 DLDS	----	----	----	----
Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000020 DLDS	----	----	----	----
Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00020 DLDS	----	----	----	----
Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00020 DLDS	----	----	----	----
Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00060 DLDS	----	----	----	----
Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00020 DLDS	----	----	----	----
Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000156	----	----	----	----
Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00100 DLDS	----	----	----	----
Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0060 DLDS	----	----	----	----

QUALITY CONTROL REPORT

Work Order	:**SK2300332**	Page	: 1 of 14
Client	:Town of Shellbrook	Laboratory	:Saskatoon - Environmental
Contact	:Karlina Cadieu	Account Manager	:Kimberley Head
Address	:71 Main Street PO Box 40 Shellbrook SK Canada S0J 2E0	Address	:819 58 Street East Saskatoon, Saskatchewan Canada S7K 6X5
Telephone	:	Telephone	:+1 306 668 8370
Project	:Waterworks- Gen Chem/Health & Toxicity	Date Samples Received	:30-Jan-2023 08:00
PO	:SK05GF0003	Date Analysis Commenced	:30-Jan-2023
C-O-C number	:----	Issue Date	:03-Feb-2023 13:20
Sampler	:AB 306-747-4900		
Site	:----		
Quote number	:----		
No. of samples received	:1		
No. of samples analysed	:1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Colby Bingham	Laboratory Supervisor	Saskatoon Inorganics, Saskatoon, Saskatchewan
Colby Bingham	Laboratory Supervisor	Saskatoon Metals, Saskatoon, Saskatchewan
Greg Pokocky	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario
Hedy Lai	Team Leader - Inorganics	Saskatoon Inorganics, Saskatoon, Saskatchewan
Janiko Lindain	Laboratory Assistant	Saskatoon Metals, Saskatoon, Saskatchewan
Justin Jackson		Saskatoon Metals, Saskatoon, Saskatchewan
Kimberly Hanson	Laboratory Analyst	Saskatoon Metals, Saskatoon, Saskatchewan

Analytical Results

Sub-Matrix: **Water**
(Matrix: Water)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID: SK05GF0003 WTP Routine	----	----	----	----
					Client sampling date / time: 25-Jan-2023 13:35	----	----	----	----
					SK2300332-001	--------	--------	--------	--------
					Result	----	----	----	----
Total Metals									
Boron, total	7440-42-8	E420	0.010	mg/L	0.828	----	----	----	----
Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000250 DLDS	----	----	----	----
Calcium, total	7440-70-2	E420	0.050	mg/L	102	----	----	----	----
Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000050 DLDS	----	----	----	----
Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050 DLDS	----	----	----	----
Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Copper, total	7440-50-8	E420	0.00050	mg/L	0.0402	----	----	----	----
Iron, total	7439-89-6	E420	0.010	mg/L	<0.050 DLDS	----	----	----	----
Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000250 DLDS	----	----	----	----
Lithium, total	7439-93-2	E420	0.0010	mg/L	0.172	----	----	----	----
Magnesium, total	7439-95-4	E420	0.0050	mg/L	49.2	----	----	----	----
Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0108	----	----	----	----
Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0126	----	----	----	----
Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00250 DLDS	----	----	----	----
Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.250 DLDS	----	----	----	----
Potassium, total	7440-09-7	E420	0.050	mg/L	15.3	----	----	----	----
Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00406	----	----	----	----
Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000250 DLDS	----	----	----	----
Silicon, total	7440-21-3	E420	0.10	mg/L	8.18	----	----	----	----
Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000050 DLDS	----	----	----	----
Sodium, total	7440-23-5	E420	0.050	mg/L	705	----	----	----	----
Strontium, total	7440-24-6	E420	0.00020	mg/L	1.03	----	----	----	----
Sulfur, total	7704-34-9	E420	0.50	mg/L	294	----	----	----	----
Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00100 DLDS	----	----	----	----
Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000050 DLDS	----	----	----	----
Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00150 DLDS	----	----	----	----
Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00050 DLDS	----	----	----	----
Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000177	----	----	----	----

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CERTIFICATE OF ANALYSIS

Work Order	: **SK2300332**	Page	: 1 of 5
Client	: **Town of Shellbrook**	Laboratory	: Saskatoon - Environmental
Contact	: Karlina Cadieu	Account Manager	: Kimberley Head
Address	: 71 Main Street PO Box 40 Shellbrook SK Canada S0J 2E0	Address	: 819 58 Street East Saskatoon SK Canada S7K 6X5
Telephone	: 306-747-4900	Telephone	: +1 306 668 8370
Project	: Waterworks- Gen Chem/Health & Toxicity	Date Samples Received	: 30-Jan-2023 08:00
PO	: SK05GF0003	Date Analysis Commenced	: 30-Jan-2023
C-O-C number	: ----	Issue Date	: 03-Feb-2023 13:20
Sampler	: AB		
Site	: ----		
Quote number	: ----		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Colby Bingham	Laboratory Supervisor	Inorganics, Saskatoon, Saskatchewan
Colby Bingham	Laboratory Supervisor	Metals, Saskatoon, Saskatchewan
Greg Pokocky	Supervisor - Inorganic	Inorganics, Waterloo, Ontario
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Janiko Lindain	Laboratory Assistant	Metals, Saskatoon, Saskatchewan
Justin Jackson		Metals, Saskatoon, Saskatchewan
Kimberly Hanson	Laboratory Analyst	Metals, Saskatoon, Saskatchewan

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 818427)											
SK2300332-001	SK05GF0003 WTP Routine	pH	----	E108	0.10	pH units	7.94	7.94	0.0768%	3%	----
Physical Tests (QC Lot: 818428)											
SK2300332-001	SK05GF0003 WTP Routine	Conductivity	----	E100	2.0	µS/cm	3530	3540	0.283%	10%	----
Physical Tests (QC Lot: 818429)											
SK2300332-001	SK05GF0003 WTP Routine	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	363	368	1.38%	20%	----
Anions and Nutrients (QC Lot: 818377)											
SK2300332-001	SK05GF0003 WTP Routine	Chloride	16887-00-6	E235.Cl	10.0	mg/L	489	495	1.34%	20%	----
Anions and Nutrients (QC Lot: 818378)											
SK2300332-001	SK05GF0003 WTP Routine	Sulfate (as SO4)	14808-79-8	E235.SO4	6.00	mg/L	757	761	0.557%	20%	----
Anions and Nutrients (QC Lot: 818379)											
SK2300332-001	SK05GF0003 WTP Routine	Fluoride	16984-48-8	E235.F	0.400	mg/L	<0.400	<0.400	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 818380)											
SK2300332-001	SK05GF0003 WTP Routine	Nitrate (as N)	14797-55-8	E235.NO3	0.400	mg/L	<0.400	<0.400	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 818381)											
SK2300332-001	SK05GF0003 WTP Routine	Nitrite (as N)	14797-65-0	E235.NO2	0.200	mg/L	0.210	0.224	0.014	Diff <2x LOR	----
Total Metals (QC Lot: 818955)											
RG2300081-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0060	mg/L	0.0192	0.0178	0.0014	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00020	mg/L	0.00615	0.00583	5.38%	20%	----
		Barium, total	7440-39-3	E420	0.00020	mg/L	0.147	0.144	2.32%	20%	----
		Beryllium, total	7440-41-7	E420	0.000040	mg/L	<0.000040	<0.000040	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.020	mg/L	1.03	1.02	1.55%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000100	mg/L	0.0000141	0.0000133	0.0000008	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.100	mg/L	301	315	4.38%	20%	----
		Cesium, total	7440-46-2	E420	0.000020	mg/L	0.000204	0.000222	8.32%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00052	<0.00050	0.00002	Diff <2x LOR	----

Chain of Custody (COC) / Analyt Request Form

COC Number: 22 -

Page of

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division
Saskatoon
Work Order Reference
SK2300332

Telephone : - 1 306 668 6370

L HERE

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Reque
Company:	Town of Shellbrook	Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharg
Contact:	Karlina Cadieu	Merge QC/QCI Reports with COA: ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush su
Phone:	306-747-4900	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush su
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush su
Street:	71 Main Street	Email 1 or Fax as listed in quote	☐ 1 day [E] if received by 3pm M-F - 100% rush su
City/Province:	Shellbrook, SK	Email 2	☐ Same day [E2] if received by 10am M-S - 200% r
Postal Code:	S0J 2E0	Email 3	Additional fees may apply to rush requests
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Recipients	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs reque
Company:	Town of Shellbrook	Email 1 or Fax as listed in quote	An
Contact:		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	SK2020GMBK1000001	AFE/Cost Center:	PO#
Job #:	Waterworks - Gen Chem/Health and Toxicity	Major/Minor Code:	Routing Code:
PO / AFE:	Station# SK05GF0003	Requisitioner:	
LSD:	5	Location:	
ALS Lab Work Order # (ALS use only):		ALS Contact: Kimberley Head	Sampler: DB

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	General Chemical	Total Metals	Chlorate	Chlorite	Free Chlorine (mg/L) WTP Field Data	Total Chlorine (mg/L) WTP Field Data	Turbidity (NTU) WTP Field Data	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	SK05GF0003 WTP (Routine)	25Jan23	1335	TDW	3	✓	✓	✓	✓						

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☑ YES ☐ NO	
Are samples for human consumption/ use? ☑ YES ☐ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
1.2							

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
	Jan 27/23	0910		1/30/2023	8:00am			

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FEB 2022 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1 If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 818955) - continued										
RG2300081-002	Anonymous	Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		Selenium, total	7782-49-2	E420	ND mg/L	0.04 mg/L	ND	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0442 mg/L	0.04 mg/L	111	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Tin, total	7440-31-5	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0457 mg/L	0.04 mg/L	114	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, total	7440-66-6	E420	0.387 mg/L	0.4 mg/L	96.8	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 820277)										
SK2300325-001	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.13 mg/L	2 mg/L	107	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
Disinfectant By-Products (QCLot: 819152)										
CG2301015-001	Anonymous	Chlorate	14866-68-3	E409.CLO3	0.995 mg/L	1 mg/L	99.5	75.0	125	----
Disinfectant By-Products (QCLot: 819153)										
CG2301015-001	Anonymous	Chlorite	14998-27-7	E409.CLO2	0.992 mg/L	1 mg/L	99.2	75.0	125	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Disinfectant By-Products (QCLot: 819153)									
Chlorite	14998-27-7	E409.CLO2	0.01	mg/L	1 mg/L	109	85.0	115	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 818427)									
pH	----	E108	----	pH units	7 pH units	99.9	98.6	101	----
Physical Tests (QCLot: 818428)									
Conductivity	----	E100	1	µS/cm	1000 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 818429)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	99.7	85.0	115	----
Anions and Nutrients (QCLot: 818377)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 818378)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 818379)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 818380)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 818381)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.6	90.0	110	----
Total Metals (QCLot: 818955)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	109	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	97.2	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	103	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 818955) - continued						
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 820277)						
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Disinfectant By-Products (QCLot: 819152)						
Chlorate	14866-68-3	E409.CLO3	0.01	mg/L	<0.010	----
Disinfectant By-Products (QCLot: 819153)						
Chlorite	14998-27-7	E409.CLO2	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 820277) - continued											
RG2300079-001	Anonymous	Sodium, dissolved	7440-23-5	E421	2.50	mg/L	9250	9500	2.71%	20%	----
Disinfectant By-Products (QC Lot: 819152)											
CG2301015-001	Anonymous	Chlorate	14866-68-3	E409.CLO3	0.010	mg/L	0.100	0.098	0.001	Diff <2x LOR	----
Disinfectant By-Products (QC Lot: 819153)											
CG2301015-001	Anonymous	Chlorite	14998-27-7	E409.CLO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----