



Date: 04-OCT-16

PO No.:

WO No.: L1836016

Project Ref: WP248.70

Sample ID: SAMPLE #1 RAW WATER

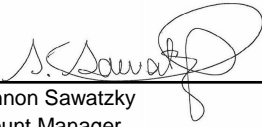
Sampled By:

Date Collected: 28-SEP-16

Lab Sample ID: L1836016-1

Matrix: DRINKING WATER - RAW

Whitehead Elton Regional Water Co-op
 Whitehead Elton Regional - PWS
 Box 107
 Alexander MB R0K 0A0
 ATTN: MARK YEOMANS

Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Single Metal in Water by ICPMS (Total)						
Total Metals by ICP-MS						
Arsenic (As)-Total	0.0389		mg/L	0.01		03-OCT-16
CDWQG = Health Canada Guideline Limits updated DECEMBER 2015						
<p>* CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit. * Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQG MAC and/ or Aesthetic Objective.</p>						
<p>Approved by <u></u> Shannon Sawatzky Account Manager</p>						

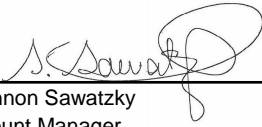
ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721

ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company



Date: 04-OCT-16
PO No.:
WO No.: L1836016
Project Ref: WP248.70
Sample ID: SAMPLE #2 TREATED RESERVOIR WATER
Sampled By:
Date Collected: 28-SEP-16
Lab Sample ID: L1836016-2
Matrix: DRINKING WATER - TREATED

Whitehead Elton Regional Water Co-op
Whitehead Elton Regional - PWS
Box 107
Alexander MB R0K 0A0
ATTN: MARK YEOMANS

Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Single Metal in Water by ICPMS (Total) Total Metals by ICP-MS Arsenic (As)-Total	0.0079		mg/L	0.01		03-OCT-16
CDWQG = Health Canada Guideline Limits updated DECEMBER 2015 * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit. * Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality - A blank entry designates no known limit. - A shaded value in the Results column exceeds CDWQG MAC and/ or Aesthetic Objective.						
Approved by  Shannon Sawatzky Account Manager						

Guidelines & Objectives

Health Canada MAC Health Related Criteria Limits

Nitrate/Nitrite-N*	Criteria limit is 10 mg/L (1.0 mg/L if present as all Nitrite-N). High concentrations may contribute to blue baby syndrome in infants.
Lead*	A cumulative body poison, uncommon in naturally occurring hard waters.
Fluoride*	Present in fluoridated water supplies at 0.8 mg/L to reduce dental caries. Elevated levels causes fluorosis (mottling of teeth).
Total Coliforms*	Criteria is 0 CFU/100mL. Adverse health effects.
E. Coli*	Criteria is 0 CFU/100 mL. Certain E. Coli bacteria can be life threatening.

*Health Canada Canadian Drinking Water Quality Guidelines (MAC limit)

Aesthetic Objective Concentration Levels

Alkalinity	Acid neutralizing capacity. Usually a measure of carbonate and bicarbonates and calculated and reported as calcium carbonate.
Balance	Quality control parameter ratioing cations to anions
Bicarbonate	See Alkalinity. Report as the anion HCO ₃ -1
Carbonate	See Alkalinity. Reported at the anion CO ₃ -2
Calcium	See Hardness. Common major cation of water chemistry.
Chloride	Common major anion of water chemistry.
Conductance	Physical test measuring water salinity (dissolved ions or solids)
Hardness	Classical measure or capacity of water to precipitate soap (chiefly calcium and magnesium ions). Causes scaling tendency in water if carbonates/bicarbonates are present (if >200 mg/L). For drinking water purposes waters with results <200 mg/L are considered acceptable, results >200 mg/L are considered poor but can be tolerated. Results >500 mg/L are unacceptable.
Hydroxide	See alkalinity
Magnesium	See hardness. Common major cation of water chemistry. Elevated levels (>125 mg/L) may exert a cathartic or diuretic action.
pH	Measure of water acidity/alkalinity. Normal range is 7.0-8.5.
Potassium	Common major cation of water chemistry.
Sodium	Common major cation of water chemistry. Measure of salinity (saltiness). The aesthetic objective (not related to health) for sodium in drinking water is 200 mg/L. However, where sodium concentration of the drinking water exceeds 20 mg/L, it is recommended that any person on a sodium restricted diet consult with his/her physician or Medical Officer of Health concerning the use of that water.
Sulphate	Common major anion of water chemistry. Elevated levels may exert a cathartic or diuretic action.
Total Dissolved Solids	A measure of water salinity.
Iron	Causes staining to laundry and porcelain and astringent taste. Oxidizes to red-brown precipitate on exposure to air.
Manganese	Elevated levels may cause staining of laundry and porcelain.
Heterotrophic Plate Count	Criteria is 500 cfu/mL Measure of heterotrophic bacteria present.

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Environmental Division



L1836016-COFC

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7 7555

WORK ORDER NO:

FOR LABORATORY

Sample Condition Upon Receipt: ACCEPTABLE ACCEPTABLE
 Frozen Cold Ambient Broken Leakage Incorrect Sample Container

LAB NO.: L1836016
 DATE RECEIVED: Sept 28/16
 TIME RECEIVED: 8:00
 BY: no

Date Sampled: Sept. 28/16 Time: 11:30 A.M. P.M.

Date Required: _____
 Submitter's Name Printed: MARK VEDMANS.

Location: ALEXANDER WATER TREATMENT PLANT
 (Town, Community, City)

Sample Submitted By: MARK VEDMANS.
 Rural Municipality/LGC/UVD: Whitehead/ELTON REGIONAL WATER Co-op.

Community Code Number: 248.70

SAMPLE TYPE

- DRINKING WATER**
- Untreated Well
 - Treated Well
 - Treated Municipal
 - Non-Treated Municipal
 - Water-Surface-Raw
 - Water-Surface-Treated

PLEASE PRINT & PRESS FIRMLY

- NON-DRINKING WATER**
- Sewage/Waste Water
 - Lake/River
 - Swimming Pool
 - Whirl Pool
 - Other

NOTES & CONDITIONS

1. Quote number must be provided to insure proper pricing.
2. Failure to properly complete all portions of this form may delay analysis.
3. ALS's liability limited to cost of analysis.

SERVICE REQUESTED

- REGULAR PRIORITY EMERGENCY
 (50% SURCHARGE) (100% SURCHARGE)

PURPOSE OF TEST
 Private Real Estate Water Main

LAB NUMBER	SAMPLE IDENTIFICATION
	SAMPLE #1 RAW WATER
	SAMPLE #2 TREATED RESERVOIR WATER

ALS CUSTOMER #: _____ QUOTE #: _____

REPORT TO BE SENT TO

NAME: WERWC
 COMPANY: _____
 ADDRESS: GENERAL DELIVERY
 CITY/TOWN: FORREST / PROV.: MB
 POSTAL CODE: R0K 0W0
 PHONE: 204 929 6116
 BY: MAIL FAX
 PICKUP E-MAIL WERWC@my.netset.ca
(FAX NUMBER) (EMAIL ADDRESS)

CC

NAME: Christine Gerardy
 ADDRESS: _____
 CITY/TOWN: _____ / PROV.: _____
 POSTAL CODE: _____
 PHONE: _____
 BY: MAIL FAX
 PICKUP E-MAIL Christine.Gerardy@gov.mb.ca
(FAX NUMBER) (EMAIL ADDRESS)

Analyses required ARSENIC

BILLING ADDRESS SAME AS REPORT TO

NAME: _____
 COMPANY: _____
 ADDRESS: _____
 CITY/TOWN: _____ / PROV.: _____
 POSTAL CODE: _____

PAYMENT PARTICULARS

INVOICE NEEDED / CLIENT'S P.O. NO.
 INTERAC
 CASH Subtotal \$ _____
 CHEQUE G.S.T. \$ _____
 VISA / MASTERCARD Total \$ _____

* OUR POLICY IS NOT TO ACCEPT SAMPLES FROM THE PRIVATE CITIZEN WITHOUT PREPAYMENT

SAMPLING INSTRUCTIONS ON REVERSE SIDE

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 Part of the ALS Laboratory Group
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 A Campbell Brothers Limited Company

ACCOUNT COPY

ENTERED IN LIMS BY: _____