



Manitoba Water Services Board - CRWC  
ATTN: GRANT MCGORMAN  
Cartier Regional Water Co-op  
Box 217  
St. Eustache MB R0H 1H0

Date Received: 09-MAY-23  
Report Date: 02-JUN-23 10:48 (MT)  
Version: FINAL REV. 2

Client Phone: 204-353-4055

## Certificate of Analysis

Lab Work Order #: L2750511  
Project P.O. #: NOT SUBMITTED  
Job Reference: CARTIER REGIONAL - PWS 36.00  
C of C Numbers:  
Legal Site Desc: 28549

Other Information: INV COMMENTS: Reissue for W848323; change account from W7395 to W7640

Sheriza Rajack-Ahamed  
Account Manager

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

		ALS ID		L2750511-1
		Sampled Date		09-MAY-23
		Sampled Time		07:15
		Sample ID		<b>PEONY FARM 3</b>
Analyte	Unit	Guide Limit #1	Guide Limit #2	<b>- DISTRIBUTION - MID</b>
Aluminum (Al)-Total	mg/L	0.1	2.9	0.0109
Antimony (Sb)-Total	mg/L	-	0.006	0.00024
Arsenic (As)-Total	mg/L	-	0.01	0.00051
Barium (Ba)-Total	mg/L	-	2	0.103
Beryllium (Be)-Total	mg/L	-	-	<0.00010
Bismuth (Bi)-Total	mg/L	-	-	<0.000050
Boron (B)-Total	mg/L	-	-	0.055
Cadmium (Cd)-Total	mg/L	-	0.005	<0.0000050
Calcium (Ca)-Total	mg/L	-	-	67.2
Cesium (Cs)-Total	mg/L	-	-	0.000025
Chromium (Cr)-Total	mg/L	-	0.05	0.00044
Cobalt (Co)-Total	mg/L	-	-	<0.00010
Copper (Cu)-Total	mg/L	1	-	0.00462
Iron (Fe)-Total	mg/L	0.3	-	0.035
Lead (Pb)-Total	mg/L	-	0.005	<0.000050
Lithium (Li)-Total	mg/L	-	-	0.0432
Magnesium (Mg)-Total	mg/L	-	-	8.93
Manganese (Mn)-Total	mg/L	0.02	0.12	0.00076
Molybdenum (Mo)-Total	mg/L	-	-	0.00287
Nickel (Ni)-Total	mg/L	-	-	0.00088
Phosphorus (P)-Total	mg/L	-	-	0.474
Potassium (K)-Total	mg/L	-	-	15.4
Rubidium (Rb)-Total	mg/L	-	-	0.00323
Selenium (Se)-Total	mg/L	-	0.05	0.000567
Silicon (Si)-Total	mg/L	-	-	2.58
Silver (Ag)-Total	mg/L	-	-	<0.000010
Sodium (Na)-Total	mg/L	200	-	52.8
Strontium (Sr)-Total	mg/L	-	7	0.196
Sulfur (S)-Total	mg/L	-	-	73.1
Tellurium (Te)-Total	mg/L	-	-	<0.00020
Thallium (Tl)-Total	mg/L	-	-	<0.000010
Thorium (Th)-Total	mg/L	-	-	<0.00010
Tin (Sn)-Total	mg/L	-	-	<0.00010

**Federal Guidelines for Canadian Drinking Water Quality (MAR, 2021)**

**#1: GCDWQ - Aesthetic Objective/Other Value (Jan.2020)**

**#2: GCDWQ - Maximum Acceptable Concentrations (Pre-2003)**

Detection Limit for result exceeds Guide Limit. Assessment against Guide Limit cannot be made.  
 Analytical result for this parameter exceeds Guide Limit listed on this report.

**Total Metals (WATER)**

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		Sampled Date		09-MAY-23
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		Sample ID		<b>PEONY FARM 3</b>
		Guide Limit #1		<b>- DISTRIBUTION</b>
		Guide Limit #2		<b>- MID</b>
Analyte	Unit			
Titanium (Ti)-Total	mg/L	-	-	<0.00030
Tungsten (W)-Total	mg/L	-	-	<0.00010
Uranium (U)-Total	mg/L	-	0.02	0.000097
Vanadium (V)-Total	mg/L	-	-	0.00110
Zinc (Zn)-Total	mg/L	5	-	<0.0030
Zirconium (Zr)-Total	mg/L	-	-	<0.00020

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## Reference Information

### Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
<b>MET-T-CCMS-WP</b>	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod.)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			

\*\*ALS test methods may incorporate modifications from specified reference methods to improve performance.

### Chain of Custody Numbers:

*The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:*

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
Additional Information:	
INV COMMENTS	Reissue for W848323; change account from W7395 to W7640

### 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 ww - 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.*

*Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.*



**Manitoba**  
 Environment, Climate and Parks  
 Office of Drinking Water  
 1007 Century Street, Winnipeg, Manitoba,  
 Canada R3H 0W4

Chain of Custody (Manitoba Drinking Water)



L2750511-COFC

Service (default):	<input type="checkbox"/> Regular Service (is 5-7 Days):
Service requested	<input type="checkbox"/> 1 Day, rush / priority
	<input type="checkbox"/> 2 Day, rush / priority
	<input type="checkbox"/> 3 Day, rush / priority

<b>Report to Operator (email PDF):</b>		<b>Report to Owner (email PDF):</b>		<b>Email PDF copy to:</b>	
Contact:	Grant McGorman	Contact:	Chris Fulsher	DWO:	Amanda Fewings
Address:	Box 217, St. Eustache, MB R0H 1H0	Address:	6000 Portage Avenue, Headingley, MB R4H 1E8	DWO Address:	14 Fultz Boulevard, Winnipeg, MB R3Y0L6
Phone:	(204) 353-4055	Phone:		DWO Phone:	(204) 795-9614
Email:	gmcgorman@crwc.ca; dvaillant@crwc.ca; cartierwtp@crwc.ca; Tyler.Foxton2@gov.mb.ca	Email:	cfulsher@crwc.ca; headingleywtp@crwc.ca; angela.meier@gov.mb.ca; dvaillant@crwc.ca	DWO Email:	amanda.fewings@gov.mb.ca
				Additional Email:	Joern.Muenster@gov.mb.ca; Melanie.Betsill@gov.mb.ca;

**If an update in Owner or Operator contact information is required, please contact your Drinking Water Officer**

<b>Client / Project Information:</b>	<b>Lab:</b>	<b>Account:</b>	Agency Code: 382	Report Type: EMS (Lab-MWS)	Project: DWQ-C
Operation Name:	CARTIER REGIONAL - PWS		Expected Sample Time:	<b>May-2023</b>	
Operation Code:	36.00				
Operation ID:	28128				
Sampled by:					

**Please record Free & Total Chlorine residuals for Distribution By-product Sampling**  
**DO NOT COPY or RE-USE this form. Sample Number are unique to the Office of Drinking Water and provided by Drinking Water Officer.**

Sample Number	Station Number	Sample Identification	Free Chlorine (mg/L)	Total Chlorine (mg/L)	Sample Date dd-mmm-yyyy	Sample Time hh:mm	Sample Matrix	Sample Type	MB-CH-PWS-V2013	MB-MET-T-CCMS	# of Containers
2305AF5005	MB05MJD041	Cartier Regional 1 - Raw	0	0	09-05-23	9:30am	6	1	X		4
2305AF5006	MB05MJD042	Cartier Regional 2 - Treated	1.71	1.96	09-05-23	9:30am	10	1	X		4
2305AF5007	MB05MJD043	Cartier Regional 3 - Distribution	1.27	1.38	09-05-23	10:10am	9	1		X	1

<b>Failure to complete all portions of this form may delay analysis.</b>			Sample Matrix: 6-Raw Water, 9-Distributed Water, 10-Treated Water		
<b>Please fill in this form LEGIBLY.</b>			Sample Type: 1-Grab Sample		
<b>By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified by the Laboratory.</b>					
<b>For ALL other testing, please use Laboratory specific forms.</b>					
Relinquished By:		Date & Time:	12:00 May 9/23	Validated By (lab use only):	Date & Time:
Received By:		Date & Time:	MAY 09 2023	Temperature:	Samples Received in Good Condition? Y/N
(lab use only)		(lab use only)	1:56	12.3	