



City of Portage la Prairie - Portage la
Prairie Regional
ATTN: MICHAEL SANDNEY

Portage la Prairie Regional - PWS
97 Saskatchewan Avenue East
Portage la Prairie MB R1N 0L8

Date Received: 30- APR-20
Report Date: 08-MAY-20 12:41 (MT)
Version: FINAL

Client Phone: 204- 239- 8372

Certificate of Analysis

Lab Work Order #: L2442079
Project P.O. #: NOT SUBMITTED
Job Reference: PORTAGE LA PRAIRIE - PWS 171.00
C of C Numbers:
Legal Site Desc: 28564

Hua Wo

Chemistry Laboratory Manager

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ANALYTICAL REPORT

Physical Tests (WATER)

		ALS ID		L2442079-1	L2442079-2
		Sampled Date		29-APR-20	29-APR-20
		Sampled Time		14:20	14:10
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED
Analyte	Unit	Guide Limit #1	Guide Limit #2		
Colour, True	CU	15	-	42.8	<5.0
Conductivity	umhos/cm	-	-	634	552
Hardness (as CaCO3)	mg/L	-	-	285 <small>HTC</small>	172 <small>HTC</small>
Langelier Index (4 C)	No Unit	-	-	0.66	0.24
Langelier Index (60 C)	No Unit	-	-	1.4	1.0
pH	pH units	7.00-10.5	-	8.31	8.13
Total Dissolved Solids	mg/L	500	-	427	350
Transmittance, UV (254 nm)	%T/cm	-	-	45.7	86.3
Turbidity	NTU	-	-	50.1	<0.10

Federal Guidelines for Canadian Drinking Water Quality (JAN, 2020) #1: GCDWQ - Aesthetic Objective/Other Value (Jan.2020)
#2: GCDWQ - Maximum Acceptable Concentrations (MACs-Jan.2020)

Anions and Nutrients (WATER)

		ALS ID		L2442079-1	L2442079-2	L2442079-3
		Sampled Date		29-APR-20	29-APR-20	29-APR-20
		Sampled Time		14:20	14:10	14:10
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED	PORTAGE LA PRAIRIE 2 - TREATED
Analyte	Unit	Guide Limit #1	Guide Limit #2			
Alkalinity, Total (as CaCO3)	mg/L	-	-	202	111	
Ammonia, Total (as N)	mg/L	-	-	0.039	0.013	
Bicarbonate (HCO3)	mg/L	-	-	241	135	
Bromate	ug/L	-	10			<3.0 <small>DLM</small>
Bromide (Br)	mg/L	-	-	0.042	<0.010	
Carbonate (CO3)	mg/L	-	-	2.64	<0.60	
Chloride (Cl)	mg/L	250	-	15.8	24.8	
Fluoride (F)	mg/L	-	1.5	0.108	0.673	
Hydroxide (OH)	mg/L	-	-	<0.34	<0.34	
Nitrate (as N)	mg/L	-	10	0.367	0.460	
Nitrite (as N)	mg/L	-	1	0.0070	<0.0010	
Sulfate (SO4)	mg/L	500	-	134	137	

Federal Guidelines for Canadian Drinking Water Quality (JAN, 2020) #1: GCDWQ - Aesthetic Objective/Other Value (Jan.2020)

#2: GCDWQ - Maximum Acceptable Concentrations (MACs-Jan.2020)

Organic / Inorganic Carbon (WATER)

		ALS ID		L2442079-1	L2442079-2
		Sampled Date		29-APR-20	29-APR-20
		Sampled Time		14:20	14:10
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED
Analyte	Unit	Guide Limit #1	Guide Limit #2		
Dissolved Organic Carbon	mg/L	-	-	11.1	4.36
Total Organic Carbon	mg/L	-	-	9.82	4.04

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ANALYTICAL REPORT

		ALS ID		L2442079-1	L2442079-2	L2442079-4
		Sampled Date		29-APR-20	29-APR-20	29-APR-20
		Sampled Time		14:20	14:10	14:55
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED	PORTAGE LA PRAIRIE 3 - DIST @ FIRE HALL
Analyte	Unit	Guide Limit #1	Guide Limit #2			
Aluminum (Al)-Total	mg/L	0.1	-	0.723	0.0072	0.0067
Antimony (Sb)-Total	mg/L	-	0.006	0.00029	0.00023	0.00022
Arsenic (As)-Total	mg/L	-	0.01	0.00445	0.00054	0.00055
Barium (Ba)-Total	mg/L	-	2	0.0741	0.0794	0.0763
Beryllium (Be)-Total	mg/L	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	-	-	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L	-	5	0.077	0.042	0.043
Cadmium (Cd)-Total	mg/L	-	0.005	0.0000425	<0.000050	<0.000050
Calcium (Ca)-Total	mg/L	-	-	57.6	56.9	61.2
Cesium (Cs)-Total	mg/L	-	-	0.000124	0.000024	0.000024
Chromium (Cr)-Total	mg/L	-	0.05	0.00114	0.00058	0.00063
Cobalt (Co)-Total	mg/L	-	-	0.00088	<0.00010	<0.00010
Copper (Cu)-Total	mg/L	1	2	0.00411	0.00884	0.00784
Iron (Fe)-Total	mg/L	0.3	-	1.35	<0.010	0.110
Lead (Pb)-Total	mg/L	-	0.005	0.000995	<0.000050	<0.000050
Lithium (Li)-Total	mg/L	-	-	0.0404	0.0391	0.0401
Magnesium (Mg)-Total	mg/L	-	-	34.1	7.25	8.21
Manganese (Mn)-Total	mg/L	0.02	0.12	0.122	0.00019	0.00330
Molybdenum (Mo)-Total	mg/L	-	-	0.00218	0.00224	0.00224
Nickel (Ni)-Total	mg/L	-	-	0.00534	0.00080	0.00093
Phosphorus (P)-Total	mg/L	-	-	0.228	0.506	0.468
Potassium (K)-Total	mg/L	-	-	14.2	14.6	14.8
Rubidium (Rb)-Total	mg/L	-	-	0.00350	0.00276	0.00287
Selenium (Se)-Total	mg/L	-	0.05	0.000458	0.000219	0.000233
Silicon (Si)-Total	mg/L	-	-	9.18	3.22	3.30
Silver (Ag)-Total	mg/L	-	-	0.000011	<0.000010	<0.000010
Sodium (Na)-Total	mg/L	200	-	38.8	47.1	47.1
Strontium (Sr)-Total	mg/L	-	7	0.236	0.161	0.181
Sulfur (S)-Total	mg/L	-	-			48.3
Tellurium (Te)-Total	mg/L	-	-	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	-	-	0.000032	<0.000010	<0.000010
Thorium (Th)-Total	mg/L	-	-	0.00021	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	-	-	<0.00010	<0.00010	<0.00010

Federal Guidelines for Canadian Drinking Water Quality (JAN, 2020)

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		Sampled Date		29-APR-20	29-APR-20	29-APR-20
		Sampled Time		14:20	14:10	14:55
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED	PORTAGE LA PRAIRIE 3 - DIST @ FIRE HALL
Analyte	Unit	Guide Limit #1	Guide Limit #2			
Titanium (Ti)-Total	mg/L	-	-	0.0187	<0.00030	<0.00030
Tungsten (W)-Total	mg/L	-	-	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L	-	0.02	0.00331	0.000106	0.000161
Vanadium (V)-Total	mg/L	-	-	0.00441	0.00081	0.00084
Zinc (Zn)-Total	mg/L	5	-	0.0081	<0.0030	0.0037
Zirconium (Zr)-Total	mg/L	-	-	0.00104	<0.00020	<0.00020

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ANALYTICAL REPORT

Physical Tests (WATER)

		ALS ID		L2522593-1	L2522593-2
		Sampled Date		28-OCT-20	28-OCT-20
		Sampled Time		08:00	08:00
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED
Analyte	Unit	Guide Limit #1	Guide Limit #2		
Colour, True	CU	15	-	11.0	<5.0
Conductivity	umhos/cm	-	-	940	738
Hardness (as CaCO3)	mg/L	-	-	396 ^{HTC}	233 ^{HTC}
Langelier Index (4 C)	No Unit	-	-	1.1	0.24
Langelier Index (60 C)	No Unit	-	-	1.9	1.0
pH	pH units	7.00-10.5	-	8.50	8.10
Total Dissolved Solids	mg/L	500	-	575	445
Transmittance, UV (254 nm)	%T/cm	-	-	67.6	87.3
Turbidity	NTU	-	-	49.9	0.16

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Anions and Nutrients (WATER)

		ALS ID		L2522593-1	L2522593-2	L2522593-3
		Sampled Date		28-OCT-20	28-OCT-20	28-OCT-20
		Sampled Time		08:00	08:00	08:00
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED	PORTAGE LA PRAIRIE 2 - TREATED
Analyte	Unit	Guide Limit #1	Guide Limit #2			
Alkalinity, Total (as CaCO3)	mg/L	-	-	292	129	
Ammonia, Total (as N)	mg/L	-	-	0.055	<0.010	
Bicarbonate (HCO3)	mg/L	-	-	330	157	
Bromate	ug/L	-	10			<0.30
Bromide (Br)	mg/L	-	-	0.055	<0.010	
Carbonate (CO3)	mg/L	-	-	13.2	<0.60	
Chloride (Cl)	mg/L	250	-	21.7	27.0	
Fluoride (F)	mg/L	-	1.5	0.158	0.802	
Hydroxide (OH)	mg/L	-	-	<0.34	<0.34	
Nitrate (as N)	mg/L	-	10	0.125	0.146	
Nitrite (as N)	mg/L	-	1	0.0019	<0.0010	
Sulfate (SO4)	mg/L	500	-	199	201	

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Organic / Inorganic Carbon (WATER)

		ALS ID		L2522593-1	L2522593-2
		Sampled Date		28-OCT-20	28-OCT-20
		Sampled Time		08:00	08:00
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED
Analyte	Unit	Guide Limit #1	Guide Limit #2		
Dissolved Organic Carbon	mg/L	-	-	8.17	4.43
Total Organic Carbon	mg/L	-	-	10.1	5.52

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Total Metals (WATER)

Analyte	Unit	ALS ID		L2522593-1	L2522593-2	L2522593-4
		Guide Limit #1	Guide Limit #2	28-OCT-20 08:00 PORTAGE LA PRAIRIE 1 - RAW	28-OCT-20 08:00 PORTAGE LA PRAIRIE 2 - TREATED	27-OCT-20 14:30 PORTAGE LA PRAIRIE 3 - DISTRIBUTION (TIM HORTONS)
Aluminum (Al)-Total	mg/L	0.1	-	1.08	0.0070	0.0040
Antimony (Sb)-Total	mg/L	-	0.006	0.00026	0.00019	0.00018
Arsenic (As)-Total	mg/L	-	0.01	0.00497	0.00093 RRV	0.00108
Barium (Ba)-Total	mg/L	-	2	0.107	0.0182	0.0179
Beryllium (Be)-Total	mg/L	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	-	-	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L	-	5	0.098	0.063	0.048
Cadmium (Cd)-Total	mg/L	-	0.005	0.0000580	0.0000052	0.0000135
Calcium (Ca)-Total	mg/L	-	-	82.0	55.8	49.0
Cesium (Cs)-Total	mg/L	-	-	0.000238	0.000024	0.000022
Chromium (Cr)-Total	mg/L	-	0.05	0.00186	0.00053	0.00059
Cobalt (Co)-Total	mg/L	-	-	0.00122	<0.00010	<0.00010
Copper (Cu)-Total	mg/L	1	2	0.00355	0.0252	0.324
Iron (Fe)-Total	mg/L	0.3	-	2.19	<0.010	0.019
Lead (Pb)-Total	mg/L	-	0.005	0.00122	<0.000050	0.000090
Lithium (Li)-Total	mg/L	-	-	0.0554	0.0530	0.0526
Magnesium (Mg)-Total	mg/L	-	-	46.5	22.8	15.8
Manganese (Mn)-Total	mg/L	0.02	0.12	0.262	0.00051	0.00055
Molybdenum (Mo)-Total	mg/L	-	-	0.00297	0.00338	0.00324
Nickel (Ni)-Total	mg/L	-	-	0.00657	0.00106 RRV	0.00161 RRV
Phosphorus (P)-Total	mg/L	-	-	0.130	0.478	0.399
Potassium (K)-Total	mg/L	-	-	8.98	9.10	8.76
Rubidium (Rb)-Total	mg/L	-	-	0.00394	0.00234	0.00252
Selenium (Se)-Total	mg/L	-	0.05	0.000450	0.000358	0.000351
Silicon (Si)-Total	mg/L	-	-	9.69	5.13	3.16
Silver (Ag)-Total	mg/L	-	-	0.000014	<0.000010	<0.000010
Sodium (Na)-Total	mg/L	200	-	47.1	49.1	48.8
Strontium (Sr)-Total	mg/L	-	7	0.334	0.191	0.162
Sulfur (S)-Total	mg/L	-	-	-	-	65.2
Tellurium (Te)-Total	mg/L	-	-	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	-	-	0.000032	<0.000010	<0.000010
Thorium (Th)-Total	mg/L	-	-	0.00021	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	-	-	<0.00010	<0.00010	<0.00010

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City of Portage la Prairie
Appendix C – Bacteriological Sample Result

		ALS ID		L2522593-1	L2522593-2	L2522593-4
		Sampled Date		28-OCT-20	28-OCT-20	27-OCT-20
		Sampled Time		08:00	08:00	14:30
		Sample ID		PORTAGE LA PRAIRIE 1 - RAW	PORTAGE LA PRAIRIE 2 - TREATED	PORTAGE LA PRAIRIE 3 - DISTRIBUTION (TIM HORTONS)
Analyte	Unit	Guide Limit #1	Guide Limit #2			
Titanium (Ti)-Total	mg/L	-	-	0.0297	<0.00030	<0.00030
Tungsten (W)-Total	mg/L	-	-	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L	-	0.02	0.00296	0.000185	0.000085
Vanadium (V)-Total	mg/L	-	-	0.00615	0.00190 ^{RRV}	0.00123 ^{RRV}
Zinc (Zn)-Total	mg/L	5	-	0.0091	0.0030	0.0339
Zirconium (Zr)-Total	mg/L	-	-	0.00085	<0.00020	<0.00020

**Federal Guidelines for
Canadian Drinking Water
Quality (JAN, 2020) #1:
GCDWQ - Aesthetic
Objective/Other Value
(Jan.2020)**

#2: GCDWQ - Maximum Acceptable Concentrations (MACs-Jan.2020)