



Town of The Pas - Water Plant  
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## Certificate of Analysis

Lab Work Order #: L1529052  
Project P.O. #: 11490  
Job Reference: THE PAS PWS 226.00  
C of C Numbers:  
Legal Site Desc:

Craig Riddell  
Account Manager

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## ANALYTICAL REPORT

### Physical Tests (WATER)

Analyte	Unit	ALS ID		THE PAS 1 - RAW	THE PAS 2 - TREATED
		Guide Limit #1	Guide Limit #2		
Colour, True	CU	15	-	9.1	<5.0
Conductivity	umhos/cm	-	-	483	488
Hardness (as CaCO3)	mg/L	-	-	193	173
Langelier Index (4 C)	No Unit	-	-	0.73	0.46
Langelier Index (60 C)	No Unit	-	-	1.5	1.2
pH	pH units	6.5-8.5	-	8.54	8.41
Total Dissolved Solids	mg/L	500	-	275	279
Transmittance, UV (254 nm)	% T	-	-	70.5	88.7
Turbidity	NTU	-	-	74.0	0.22

**Federal Guidelines for Canadian Drinking Water Quality (AUG, 2012)**

#1: GCDWQ - Aesthetic Objective

#2: GCDWQ - Maximum Acceptable Concentrations (MACs)

### Anions and Nutrients (WATER)

Analyte	Unit	ALS ID		THE PAS 1 - RAW	THE PAS 2 - TREATED
		Guide Limit #1	Guide Limit #2		
Alkalinity, Total (as CaCO3)	mg/L	-	-	160	130
Ammonia, Total (as N)	mg/L	-	-	<0.010	<0.010
Bicarbonate (HCO3)	mg/L	-	-	183	153
Bromide (Br)	mg/L	-	-	<0.10	<0.10
Carbonate (CO3)	mg/L	-	-	<12	<12
Chloride	mg/L	250	-	9.91	13.7
Fluoride	mg/L	-	1.5	0.13	0.82
Hydroxide (OH)	mg/L	-	-	<6.8	<6.8
Nitrate-N	mg/L	-	10	0.0460	0.0495
Nitrite-N	mg/L	-	1	<0.0010	<0.0010
Sulfate	mg/L	500	-	67.8	84.6

**Federal Guidelines for Canadian Drinking Water Quality (AUG, 2012)**

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### Organic / Inorganic Carbon (WATER)

Analyte	Unit	ALS ID		THE PAS 1 - RAW	THE PAS 2 - TREATED
		Guide Limit #1	Guide Limit #2		
Dissolved Organic Carbon	mg/L	-	-	6.4	5.0
Total Organic Carbon	mg/L	-	-	6.8	5.1

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Analytical result for this parameter exceeds Guide Limit listed on this report.

# ANALYTICAL REPORT

## Total Metals (WATER)

Analyte	Unit	ALS ID		L1529052-1	L1529052-2
		Sampled Date	Sampled Time	06-OCT-14	06-OCT-14
		Sample ID		13:00	13:00
		Guide Limit #1	Guide Limit #2	THE PAS 1 - RAW	THE PAS 2 - TREATED
Aluminum (Al)-Total	mg/L	0.1	-	2.43	0.0339
Antimony (Sb)-Total	mg/L	-	0.006	0.00024	0.00020
Arsenic (As)-Total	mg/L	-	0.01	0.00224	0.00041
Barium (Ba)-Total	mg/L	-	1	0.103	0.0625
Beryllium (Be)-Total	mg/L	-	-	<0.00020	<0.00020
Bismuth (Bi)-Total	mg/L	-	-	<0.00020	<0.00020
Boron (B)-Total	mg/L	-	5	0.034	0.027
Cadmium (Cd)-Total	mg/L	-	0.005	0.000053	<0.000010
Calcium (Ca)-Total	mg/L	-	-	45.1	40.5
Cesium (Cs)-Total	mg/L	-	-	0.00045	<0.00010
Chromium (Cr)-Total	mg/L	-	0.05	0.0039	<0.0010
Cobalt (Co)-Total	mg/L	-	-	0.00163	<0.00020
Copper (Cu)-Total	mg/L	1	-	0.00811	0.00260
Iron (Fe)-Total	mg/L	0.3	-	3.44	<0.10
Lead (Pb)-Total	mg/L	-	0.01	0.00197	0.000099
Lithium (Li)-Total	mg/L	-	-	0.0142	0.0096
Magnesium (Mg)-Total	mg/L	-	-	19.5	17.5
Manganese (Mn)-Total	mg/L	0.05	-	0.237	0.0148
Molybdenum (Mo)-Total	mg/L	-	-	0.00129	0.00121
Nickel (Ni)-Total	mg/L	-	-	0.0052	<0.0020
Phosphorus (P)-Total	mg/L	-	-	0.10	<0.10
Potassium (K)-Total	mg/L	-	-	3.69	2.98
Rubidium (Rb)-Total	mg/L	-	-	0.00646	0.00101
Selenium (Se)-Total	mg/L	-	0.01	<0.0010	<0.0010
Silicon (Si)-Total	mg/L	-	-	6.68	1.38
Silver (Ag)-Total	mg/L	-	-	<0.00010	<0.00010
Sodium (Na)-Total	mg/L	200	-	21.8	20.9
Strontium (Sr)-Total	mg/L	-	-	0.312	0.280
Tellurium (Te)-Total	mg/L	-	-	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	-	-	<0.00010	<0.00010
Thorium (Th)-Total	mg/L	-	-	0.00064	<0.00010
Tin (Sn)-Total	mg/L	-	-	<0.00020	<0.00020
Titanium (Ti)-Total	mg/L	-	-	0.0658	<0.00050

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## ANALYTICAL REPORT

**Total Metals (WATER)**

Analyte	Unit	ALS ID		L1529052-1	L1529052-2
		Guide Limit #1	Guide Limit #2	THE PAS 1 - RAW	THE PAS 2 - TREATED
Tungsten (W)-Total	mg/L	-	-	<0.00010	<0.00010
Uranium (U)-Total	mg/L	-	0.02	0.00108	0.00041
Vanadium (V)-Total	mg/L	-	-	0.00697	0.00031
Zinc (Zn)-Total	mg/L	5	-	0.0223	<0.0020
Zirconium (Zr)-Total	mg/L	-	-	0.00103	<0.00040

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