



Hydrogeology Consulting Services
(Kitchener)
ATTN: Chris Helmer

Date Received: 02- NOV- 17
Report Date: 09- NOV- 17 15:10 (MT)
Version: FINAL

Client Phone: 905- 550- 0969

Certificate of Analysis

Lab Work Order #: L2017581
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pike
Client Services Supervisor

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ANALYTICAL GUIDELINE REPORT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2		
L2017581-1										
Sampled By: CLIENT on 02-NOV-17 @ 09:15										
Matrix: WATER										
Physical Tests										
Colour, Apparent		<2.0		2.0	CU	03-NOV-17		5		
Conductivity		941		3.0	umhos/cm	03-NOV-17				
pH		7.69		0.10	pH units	03-NOV-17		6.5-8.5		
Redox Potential		319	PEHR	-1000	mV	03-NOV-17				
Total Dissolved Solids		603	DLDS	20	mg/L	07-NOV-17		*500		
Turbidity		1.12		0.10	NTU	03-NOV-17		5		
Anions and Nutrients										
Alkalinity, Bicarbonate (as CaCO3)		387		10	mg/L	07-NOV-17				
Alkalinity, Carbonate (as CaCO3)		<10		10	mg/L	07-NOV-17				
Alkalinity, Hydroxide (as CaCO3)		<10		10	mg/L	07-NOV-17				
Alkalinity, Total (as CaCO3)		387		10	mg/L	07-NOV-17		30-500		
Ammonia, Total (as N)		0.439		0.020	mg/L	08-NOV-17				
Bromide (Br)		<0.10		0.10	mg/L	03-NOV-17				
Chloride (Cl)		88.3		0.50	mg/L	03-NOV-17		250		
Computed Conductivity		883			uS/cm	08-NOV-17				
Conductivity % Difference		-6.4			%	08-NOV-17				
Fluoride (F)		0.027		0.020	mg/L	03-NOV-17	1.5			
Hardness (as CaCO3)		419			mg/L	08-NOV-17		*80-100		
Ion Balance		110			%	08-NOV-17				
Langelier Index		0.8			No Unit	08-NOV-17				
Nitrate (as N)		3.71		0.020	mg/L	03-NOV-17	10			
Nitrite (as N)		0.017		0.010	mg/L	03-NOV-17	1			
Saturation pH		6.88			pH	08-NOV-17				
Orthophosphate-Dissolved (as P)		<0.0030		0.0030	mg/L	07-NOV-17				
TDS (Calculated)		555			mg/L	08-NOV-17				
Sulfate (SO4)		20.6		0.30	mg/L	03-NOV-17		500		
Anion Sum		9.55			me/L	08-NOV-17				
Cation Sum		10.5			me/L	08-NOV-17				
Cation - Anion Balance		4.9			%	08-NOV-17				
Inorganic Parameters										
Silica		10.2		0.21	mg/L	03-NOV-17				
Bacteriological Tests										
E. Coli		0		0	CFU/100m L	04-NOV-17	0			
Total Coliform Background		21		0	CFU/100m L	04-NOV-17				
Total Coliforms		5		0	CFU/100m L	04-NOV-17	*0			
Metals										
Sodium Adsorption Ratio		0.91		0.10	SAR	03-NOV-17				
Total Metals										
Aluminum (Al)-Total		<0.010		0.010	mg/L	03-NOV-17		0.1		
Antimony (Sb)-Total		<0.00010		0.00010	mg/L	03-NOV-17	0.006			
Arsenic (As)-Total		0.00021		0.00010	mg/L	03-NOV-17	0.025			
Barium (Ba)-Total		0.0420		0.00020	mg/L	03-NOV-17	1			
Beryllium (Be)-Total		<0.00010		0.00010	mg/L	03-NOV-17				
Bismuth (Bi)-Total		<0.000050		0.000050	mg/L	03-NOV-17				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Drinking Water Regulation (ODWQS) JAN.1,2017 = [Suite] - ON-DW-STANDARD+GUIDELINES

#1: Schedule 1 (Microbiological) and 2 (Chemical) Standards (JAN,2017)

#2: Ontario DW Aesthetic and Operational Guidelines



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Sampled By: CLIENT on 02-NOV-17 @ 09:15										
Matrix: WATER										
Total Metals										
	Boron (B)-Total	0.022		0.010	mg/L	03-NOV-17	5			
	Cadmium (Cd)-Total	0.000027		0.000010	mg/L	03-NOV-17	0.005			
	Calcium (Ca)-Total	105		0.50	mg/L	03-NOV-17				
	Cesium (Cs)-Total	<0.000010		0.000010	mg/L	03-NOV-17				
	Chromium (Cr)-Total	<0.00050		0.00050	mg/L	03-NOV-17	0.05			
	Cobalt (Co)-Total	0.00011		0.00010	mg/L	03-NOV-17				
	Copper (Cu)-Total	0.0068		0.0010	mg/L	03-NOV-17		1		
	Iron (Fe)-Total	<0.050		0.050	mg/L	03-NOV-17		0.3		
	Lead (Pb)-Total	0.00072		0.00010	mg/L	03-NOV-17	0.01			
	Magnesium (Mg)-Total	38.1		0.050	mg/L	03-NOV-17				
	Manganese (Mn)-Total	0.00782		0.00050	mg/L	03-NOV-17		0.05		
	Molybdenum (Mo)-Total	0.000102		0.000050	mg/L	03-NOV-17				
	Nickel (Ni)-Total	0.00120		0.00050	mg/L	03-NOV-17				
	Phosphorus (P)-Total	<0.050		0.050	mg/L	03-NOV-17				
	Potassium (K)-Total	12.5		0.050	mg/L	03-NOV-17				
	Rubidium (Rb)-Total	0.00116		0.00020	mg/L	03-NOV-17				
	Selenium (Se)-Total	0.000100		0.000050	mg/L	03-NOV-17	0.01			
	Silicon (Si)-Total	4.75		0.10	mg/L	03-NOV-17				
	Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-NOV-17				
	Sodium (Na)-Total	42.6		0.50	mg/L	03-NOV-17	*20	200		
	Strontium (Sr)-Total	0.144		0.0010	mg/L	03-NOV-17				
	Sulfur (S)-Total	7.67		0.50	mg/L	03-NOV-17				
	Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-NOV-17				
	Thallium (Tl)-Total	0.000071		0.000010	mg/L	03-NOV-17				
	Thorium (Th)-Total	<0.00010		0.00010	mg/L	03-NOV-17				
	Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-NOV-17				
	Titanium (Ti)-Total	<0.00030		0.00030	mg/L	03-NOV-17				
	Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-NOV-17				
	Uranium (U)-Total	0.000396		0.000010	mg/L	03-NOV-17	0.02			
	Vanadium (V)-Total	<0.00050		0.00050	mg/L	03-NOV-17				
	Zinc (Zn)-Total	0.0181		0.0030	mg/L	03-NOV-17		5		
	Zirconium (Zr)-Total	<0.00030		0.00030	mg/L	03-NOV-17				

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