

Analytical Report

Bill To: County of Vermilion River #24	Project ID: CVR	Lot ID: 1246086
Box 69	Project Name: Year End Samples	Control Number:
Kitscoty, AB, Canada	Project Location: County Locations	Date Received: Dec 20, 2017
TOB 2P0	LSD:	Date Reported: Dec 27, 2017
Attn: Darrell Stefanick	P.O.: 4821	Report Number: 2253220
Sampled By: Evan Boser	Proj. Acct. code:	
Company: CVR		

		Reference Number	1246086-1	1246086-2	1246086-3	
		Sample Date	Dec 20, 2017	Dec 20, 2017	Dec 20, 2017	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	2 / Alcurve / 5.9	3 / 640 / 5.9	4 / Riverton / 5.9	
		Matrix	Water	Water	Water	
Analyte	Units	Results	Results	Results	Nominal Detection Limit	
Metals Dissolved						
Subsample	Field Filtered		Lab Filtered	Lab Filtered	Lab Filtered	
Routine Water						
pH			8.03	7.68	7.80	
Temperature of observed	°C		21.0	20.9	21.1	
pH						
Electrical Conductivity	at 25 °C	µS/cm	2510	647	2000	1
Electrical Conductivity	at 25 °C	dS/m	2.51	0.647	2.00	0.001
Calcium	Dissolved	mg/L	45.2	93.5	75.5	0.2
Magnesium	Dissolved	mg/L	17	26.5	28.0	0.2
Sodium	Dissolved	mg/L	503	10.9	331	0.4
Potassium	Dissolved	mg/L	4.6	3.4	5.0	0.4
Iron	Dissolved	mg/L	<0.02	<0.01	<0.01	0.01
Manganese	Dissolved	mg/L	0.048	<0.005	0.136	0.005
Chloride	Dissolved	mg/L	455	0.8	147	0.4
Nitrate - N		mg/L	2.15	0.14	0.38	0.01
Nitrite - N		mg/L	<0.02	<0.005	0.433	0.005
Nitrate and Nitrite - N		mg/L	2.15	0.14	0.82	0.01
Sulfate (SO4)	Dissolved	mg/L	13	42.1	325	0.9
Hydroxide		mg/L	<5	<5	<5	
Carbonate		mg/L	<6	<6	<6	
Bicarbonate		mg/L	737	403	692	
P-Alkalinity	as CaCO3	mg/L	<5.0	<5.0	<5.0	5
T-Alkalinity	as CaCO3	mg/L	605	330	567	5
Total Dissolved Solids	Calculated	mg/L	1400	375	1250	1
Hardness	Dissolved as CaCO3	mg/L	184	343	304	
Ionic Balance	Dissolved	%	101	99	92	

Approved by:

Anthony Neumann, MSc
Laboratory Operations Manager

Data have been validated by Analytical Quality Control and Exova's Integrated Data Validation System (IDVS).

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Methodology and Notes

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Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alkalinity, pH, and EC in water	APHA	* Alkalinity - Titration Method, 2320 B	Dec 22, 2017	Exova Edmonton
Alkalinity, pH, and EC in water	APHA	* Conductivity, 2510 B	Dec 22, 2017	Exova Edmonton
Alkalinity, pH, and EC in water	APHA	* pH - Electrometric Method, 4500-H+ B	Dec 22, 2017	Exova Edmonton
Anions (Routine) by Ion Chromatography	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Dec 21, 2017	Exova Edmonton
Approval-Edmonton	APHA	Checking Correctness of Analyses, 1030 E	Dec 21, 2017	Exova Edmonton
Chloride in Water	APHA	* Automated Ferricyanide Method, 4500-Cl-E	Dec 21, 2017	Exova Edmonton
Metals Trace (Dissolved) in water	APHA	Hardness by Calculation, 2340 B	Dec 21, 2017	Exova Edmonton
Metals Trace (Dissolved) in water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	Dec 21, 2017	Exova Edmonton

* Reference Method Modified

References

APHA Standard Methods for the Examination of Water and Wastewater

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