ANNUAL REPORT FOR THE MUNICIPALITY OF CLYDE RIVER

YEAR	BEING	REPORTED:	2023

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence 3BM-CLY1924 issued to the Municipality of Clyde River.

i)- iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are results for Monitoring station CLY-1 and CLY-4, as well as detailed chemical, physical and biological analysis required at CLY-5, CLY-6a and CLY-6b.

Month Reported	Quantity of Water Obtained from all sources	Quantity of Sewage Waste Discharged		
January	3,286.86	3,286.86		
February	2,958.22	2,958.22		
March	3,062.98	3,062.98		
April	3,495.03	3,495.03		
May	3,099.68	3,099.68		
June	2,857.00	2,857.00		
July	3,367.82	3,367.82		
August	4,181.85	4,181.85		
September	3,163.91	3,163.91		
October	3,178.31	3,178.31		
November	2,891.14	2,891.14		
December	2,842.50	2,842.50		
ANNUAL TOTAL	38,385.30	38,385.30		

Please indicate volumes in cubic metres - 1 cubic meter equals 1000 litres

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iv.	a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;
	Nothing for the year January to December 2023.
v.	a list of unauthorized discharges and summary of follow-up action taken; Nothing for the year January to December 2023.
vi.	a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
	Northing for the year January to December 2023.
vii.	a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
	The initial planning study for a new solid waste facility was completed in 2020/21. The cost estimates have indicated that the current funding cannot support the construction of a new state-of-the-art 20-year landfill. The focus of the project will shift to making improvements to the current site. A second planning contract to assess and prioritize the improvements to the current site is expected to be complete in 2024.
viii	 any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and Nothing for the year January to December 2023.

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ix.	updates or revisions to the approved Operation and Maintenance Plans.
_	Nothing for the year January to December 2023.
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ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

Certificate of Analysis for samples taken at CLY-5, CLY-6a and CLY-6b on August 3, 2023 is attached.

Effluent from CLY-5 did not exceed the effluent quality standards as per Part D, Item 2:

Parameter	Maximum Concentration of any Grab Sample	August 3, 2023	
BOD ₅	120 mg/L	96 mg/L	
Total Suspended Solids	180 mg/L	24 mg/L	
Fecal Coliform	1x10 ⁶ CFU/dl	18100 CFU/100mL	
Oil and Grease	No visible sheen	12.7 mg/L	
рН	Between 6 and 9	7.52	

CERTIFICATE OF ANALYSIS



Final Report

C.O.C.: G 107410 REPORT No: 23-020108 - Rev. 0

Report To:

Municipality of Clyde River

Box 89

Clyde River, NU X0A 0E0

CADUCEON Environmental Laboratories

2378 Holly Lane

Ottawa, ON K1V 7P1

Attention: Jerry Natanine

2023-Aug-08 DATE RECEIVED: **CUSTOMER PROJECT:** DATE REPORTED:

2023-Aug-16 P.O. NUMBER:

Waste Water SAMPLE MATRIX:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	3	OTTAWA	VKASYAN	2023-Aug-09	A-IC-01	SM 4110B
BOD5 (Liquid)	3	KINGSTON	MDUBIEN	2023-Aug-10	BOD-001	SM 5210B
Cond/pH/Alk Auto (Liquid)	3	OTTAWA	MDON	2023-Aug-09	COND-02/PH-02/A	SM 2510B/4500H/
					LK-02	2320B
Fecal Coliforms (Liquid)	3	OTTAWA	HALIPDA	2023-Aug-08	FC-001	SM 9222D
ICP/MS Total (Liquid)	3	OTTAWA	TPRICE	2023-Aug-09	D-ICPMS-01	EPA 6020
ICP/OES Total (Liquid)	3	OTTAWA	NHOGAN	2023-Aug-09	D-ICP-01	SM 3120B
Mercury (Liquid)	3	OTTAWA	TBENNETT	2023-Aug-10	D-HG-02	SM 3112B
Ammonia & o-Phosphate (Liquid)	3	KINGSTON	AMANIYA	2023-Aug-14	NH3-001	SM 4500NH3
Oil & Grease (Liquid)	3	KINGSTON	TMCBRYDE	2023-Aug-09	O&G-001	SM 5520
Phenols (Liquid)	3	KINGSTON	KWELCH	2023-Aug-10	PHEN-01	MECP E3179
Total Organic Carbon (TOC)	3	OTTAWA	VKASYAN	2023-Aug-09	C-OC-01	EPA 415.2
TSS (Liquid)	3	KINGSTON	AMANIYA	2023-Aug-11	TSS-001	SM 2540D

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an $\,^{\star}$

	Clie	ent I.D.	CLY-5	CLY-6a	CLY-6b	
Sample I.D. Date Collected		23-020108-1 2023-08-03	23-020108-2 2023-08-03	23-020108-3 2023-08-03		
Parameter	Units	R.L.	-	-	-	
Fecal Coliform	CFU/100mL	1	18100	2	<2	
Alkalinity(CaCO3) to pH4.5	mg/L	5	294	81	13	
pH @25°C	pH units	-	7.52	7.42	6.09	
Conductivity @25°C	uS/cm	1	850	327	4810	
Chloride	mg/L	0.5	52.9	27.7	1540	
Nitrate (N)	mg/L	0.05	0.16	5.05	<0.40	
Nitrite (N)	mg/L	0.05	<0.05	<0.05	<0.40	
Sulphate	mg/L	1	<1	2	196	
BOD5	mg/L	3	96	<3	<3	
Total Suspended Solids	mg/L	3	24	<3	12	
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	76.2	18.3	0.06	
Total Organic Carbon	mg/L	0.2	44.0	16.6	<0.2	
Phenolics	mg/L	0.001	0.636	<0.001	<0.001	
Hardness (as CaCO3)	mg/L	-	30	20	400	
Aluminum (Total)	mg/L	0.01	0.10	0.06	0.03	
Cadmium (Total)	mg/L	0.005	<0.005	<0.005	<0.005	
Calcium (Total)	mg/L	0.02	5.06	3.16	27.1	
Chromium (Total)	mg/L	0.002	<0.002	<0.002	<0.002	
Cobalt (Total)	mg/L	0.005	<0.005	<0.005	<0.005	
Copper (Total)	mg/L	0.002	0.074	0.030	<0.002	
Iron (Total)	mg/L	0.005	1.08	0.457	0.032	

Steve Garrett
Director of Laboratory Services

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	Client I.D.		CLY-5	CLY-6a	CLY-6b
	Sample I.D.		23-020108-1 2023-08-03	23-020108-2 2023-08-03	23-020108-3 2023-08-03
Parameter	Date Collected Units R.L.		2023-06-03	2023-06-03	2023-06-03
Lead (Total)	mg/L	0.02	<0.02	<0.02	<0.02
Magnesium (Total)	mg/L	0.02	3.88	2.19	80.3
Manganese (Total)	mg/L	0.001	0.096	0.076	0.002
Nickel (Total)	mg/L	0.01	<0.01	<0.01	<0.01
Potassium (Total)	mg/L	0.1	19.2	8.9	30.3
Sodium (Total)	mg/L	0.2	44.0	25.5	706
Zinc (Total)	mg/L	0.005	0.042	0.012	<0.005
Arsenic (Total)	mg/L	0.0005	0.0008	<0.0005	<0.0005
Mercury	mg/L	0.00002	<0.00002	<0.00002	<0.00002
	Client I.D. Sample I.D. Date Collected		CLY-5	CLY-6a	CLY-6b
			23-020108-1	23-020108-2	23-020108-3
			2023-08-03	2023-08-03	2023-08-03
Parameter	Units	R.L.	-	-	
Oil & Grease (Total)	mg/L	1.0	12.7	6.5	1.5

Bacteria passed holding time.

Steve Garrett
Director of Laboratory Services