

C.O.C.: ---

REPORT No. B18-15553

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 05-Jun-18

JOB/PROJECT NO.:

DATE REPORTED: 14-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Sewage Lagoon			
			Sample I.D.	B18-15553-1			
			Date Collected	30-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	06-Jun-18/O	174		
Total Suspended Solids	mg/L	3	SM 2540D	06-Jun-18/O	120		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	13-Jun-18/O	55		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	07-Jun-18/O	306		
Conductivity @25°C	µmho/cm	1	SM 2510B	07-Jun-18/O	925		
pH @25°C	pH Units		SM 4500H	07-Jun-18/O	7.36		
Chloride	mg/L	0.5	SM4110C	06-Jun-18/O	49.7		
Nitrite (N)	mg/L	0.1	SM4110C	06-Jun-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	06-Jun-18/O	< 0.1		
Sulphate	mg/L	1	SM4110C	06-Jun-18/O	7		
Total Organic Carbon	mg/L	0.2	EPA 415.1	08-Jun-18/O	69.1		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH ₃ -H	07-Jun-18/K	83.8		
Phenolics	mg/L	0.001	MOEE 3179	07-Jun-18/O	0.305		
Aluminum (total)	mg/L	0.01	SM 3120	13-Jun-18/O	2.50		
Arsenic	mg/L	0.0005	EPA 200.8	07-Jun-18/O	0.0023		
Cadmium	mg/L	0.005	SM 3120	13-Jun-18/O	< 0.005		
Calcium	mg/L	0.02	SM 3120	13-Jun-18/O	11.4		
Chromium	mg/L	0.002	SM 3120	13-Jun-18/O	0.005		
Cobalt	mg/L	0.005	SM 3120	13-Jun-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	13-Jun-18/O	0.264		
Iron (Total)	mg/L	0.005	SM 3120	13-Jun-18/O	3.96		
Lead	mg/L	0.02	SM 3120	13-Jun-18/O	< 0.02		
Magnesium	mg/L	0.02	SM 3120	13-Jun-18/O	6.50		
Manganese (Total)	mg/L	0.001	SM 3120	13-Jun-18/O	0.096		
Mercury	mg/L	0.00002	SM 3112 B	13-Jun-18/O	0.00006		
Nickel	mg/L	0.01	SM 3120	13-Jun-18/O	< 0.01		

NOTE: Fecal Coliform passed acceptable holding times upon arrival at lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

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DATE RECEIVED: 05-Jun-18

JOB/PROJECT NO.:

DATE REPORTED: 14-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Sewage Lagoon			
			Sample I.D.	B18-15553-1			
			Date Collected	30-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Potassium	mg/L	0.1	SM 3120	13-Jun-18/O	23.3		
Sodium	mg/L	0.2	SM 3120	13-Jun-18/O	47.7		
Zinc	mg/L	0.005	SM 3120	13-Jun-18/O	0.138		
Oil & Grease-Total	mg/L	1.0	SM 5520	07-Jun-18/K	70.5		
Fecal Coliform	cfu/100mL	1	MOE E3371	05-Jun-18/O	2300000		

NOTE: Fecal Coliform passed acceptable holding times upon arrival at lab.



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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-24455

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Aug-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 24-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.		Leachate CLY-2 (Landfill Site)			
			Sample I.D.		B18-24455-1			
			Date Collected		14-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO ₃)	mg/L	1	SM 3120	23-Aug-18/O	149			
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	16-Aug-18/O	41			
pH @25°C	pH Units		SM 4500H	16-Aug-18/O	7.39			
Conductivity @25°C	µmho/cm	1	SM 2510B	16-Aug-18/O	642			
Total Suspended Solids	mg/L	3	SM 2540D	22-Aug-18/O	7			
Chloride	mg/L	0.5	SM4110C	16-Aug-18/O	191			
Nitrite (N)	mg/L	0.1	SM4110C	16-Aug-18/O	< 0.1			
Nitrate (N)	mg/L	0.1	SM4110C	16-Aug-18/O	< 0.1			
Sulphate	mg/L	1	SM4110C	16-Aug-18/O	43			
Aluminum	mg/L	0.01	SM 3120	23-Aug-18/O	0.17			
Arsenic	mg/L	0.0001	EPA 200.8	16-Aug-18/O	0.0006			
Cadmium	mg/L	0.005	SM 3120	23-Aug-18/O	< 0.005			
Calcium	mg/L	0.02	SM 3120	23-Aug-18/O	29.4			
Chromium	mg/L	0.002	SM 3120	23-Aug-18/O	< 0.002			
Cobalt	mg/L	0.005	SM 3120	23-Aug-18/O	< 0.005			
Copper	mg/L	0.002	SM 3120	23-Aug-18/O	0.009			
Iron	mg/L	0.005	SM 3120	23-Aug-18/O	0.283			
Lead	mg/L	0.02	SM 3120	23-Aug-18/O	< 0.02			
Magnesium	mg/L	0.02	SM 3120	23-Aug-18/O	18.4			
Manganese	mg/L	0.001	SM 3120	23-Aug-18/O	0.028			
Mercury	mg/L	0.00002	SM 3112 B	23-Aug-18/O	< 0.00002			
Nickel	mg/L	0.01	SM 3120	23-Aug-18/O	< 0.01			
Potassium	mg/L	0.1	SM 3120	23-Aug-18/O	7.7			
Sodium	mg/L	0.2	SM 3120	23-Aug-18/O	61.5			
Zinc	mg/L	0.005	SM 3120	23-Aug-18/O	0.020			

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Aug-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 24-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Leachate CLY-2 (Landfill Site)			
			Sample I.D.	B18-24455-1			
			Date Collected	14-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Ammonia (N)-Total	mg/L	0.01	SM4500- NH3-H	20-Aug-18/K	0.06		
Phosphorus-Total	mg/L	0.01	E3199A.1	17-Aug-18/K	0.11		
Phenolics	mg/L	0.002	MOEE 3179	20-Aug-18/K	0.003		
BOD	mg/L	3	SM 5210B	17-Aug-18/O	4		
Total Organic Carbon	mg/L	0.2	EPA 415.1	21-Aug-18/O	15.4		
Fecal Coliform	cfu/100mL	1	MOE E3371	16-Aug-18/O	< 10		
Acenaphthene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Acenaphthylene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Anthracene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Benzo(a)anthracene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Benzo(a)pyrene	µg/L	0.01	EPA 8270	20-Aug-18/K	< 0.01		
Benzo(b)fluoranthene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Benzo(b+k)fluoranthene	µg/L	0.1	EPA 8270	20-Aug-18/K	< 0.1		
Benzo(g,h,i)perylene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Benzo(k)fluoranthene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Chrysene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Dibenzo(a,h)anthracene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Fluoranthene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Fluorene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Methylnaphthalene,1-	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Methylnaphthalene,2-	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Naphthalene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Phenanthrene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		
Pyrene	µg/L	0.05	EPA 8270	20-Aug-18/K	< 0.05		

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Aug-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 24-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.		Leachate CLY-2 (Landfill Site)			
			Sample I.D.		B18-24455-1			
			Date Collected		14-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Terphenyl-d14 (SS)	% rec.	10	EPA 8270	20-Aug-18/K	76.0			
Benzene	µg/L	0.5	EPA 8260	17-Aug-18/O	< 0.5			
Toluene	µg/L	0.5	EPA 8260	17-Aug-18/O	< 0.5			
Ethylbenzene	µg/L	0.5	EPA 8260	17-Aug-18/O	< 0.5			
Xylene, m,p-	µg/L	0.4	EPA 8260	17-Aug-18/O	< 0.4			
Xylene, o-	µg/L	0.1	EPA 8260	17-Aug-18/O	< 0.1			
Xylene, m,p,o-	µg/L	0.4	EPA 8260	17-Aug-18/O	< 0.4			
Toluene-d8 (SS)	%		EPA 8260	17-Aug-18/O	100			
PHC F1 (C6-C10)	µg/L	20	MOE E3421	17-Aug-18/O	< 20			
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	17-Aug-18/K	< 50			
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	17-Aug-18/K	< 400			
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	17-Aug-18/K	< 400			
Oil & Grease-Total	mg/L	1.0	SM 5520	22-Aug-18/K	5.7			

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW24458

REPORT No. B18-24458

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Aug-18

JOB/PROJECT NO.: Drinking Water

DATE REPORTED: 28-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	Lake Water	Treated Water (End of Nozzle)		
			Sample I.D.	B18-24458-1	B18-24458-2		
			Date Collected	16-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Arsenic	mg/L	0.0001	EPA 200.8	17-Aug-18/O	< 0.0001	< 0.0001	
Barium	mg/L	0.001	SM 3120	20-Aug-18/O	0.001	0.001	
Cadmium	mg/L	0.000015	EPA 200.8	17-Aug-18/O	< 0.000015	< 0.000015	
Chromium	mg/L	0.002	SM 3120	20-Aug-18/O	< 0.002	< 0.002	
Chromium (VI)	mg/L	0.002	MOE E3056	21-Aug-18/O	< 0.002 ¹	< 0.002 ¹	
Chloride	mg/L	0.5	SM4110C	16-Aug-18/O	6.4	7.6	
Cyanide (Total)	mg/L	0.005	SM 4500CN	21-Aug-18/K	< 0.005	< 0.005	
Sulphate	mg/L	1	SM4110C	16-Aug-18/O	2	2	
Copper	mg/L	0.002	SM 3120	20-Aug-18/O	< 0.002	< 0.002	
Iron	mg/L	0.005	SM 3120	20-Aug-18/O	0.022	0.028	
Lead	mg/L	0.00002	EPA 200.8	17-Aug-18/O	0.00002	0.00007	
Manganese	mg/L	0.001	SM 3120	20-Aug-18/O	0.001	0.001	
Selenium	mg/L	0.001	EPA 200.8	17-Aug-18/O	< 0.001	< 0.001	
Silver	mg/L	0.0001	EPA 200.8	17-Aug-18/O	< 0.0001	< 0.0001	
Zinc	mg/L	0.005	SM 3120	20-Aug-18/O	< 0.005	0.098	
Fluoride	mg/L	0.1	SM4110C	16-Aug-18/O	< 0.1	< 0.1	
Nitrite (N)	mg/L	0.1	SM4110C	16-Aug-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	16-Aug-18/O	< 0.1	< 0.1	
Phenolics	mg/L	0.002	MOEE 3179	23-Aug-18/K	< 0.002	< 0.002	
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	20-Aug-18/O	1.2	2.1	
Surfactants Content	mg/L	0.05	SM-5540-C	24-Aug-18/O	< 0.05 ²	< 0.05 ²	
TDS (Calc. from Cond.)	mg/L	1	Calc.	17-Aug-18	16	20	
E coli	cfu/100mL	1	MOE E3407	16-Aug-18/O	0	0	

1. Chromium (VI) result is based on total Chromium

2. Subcontracted to Niagara Analytical



R.L. = Reporting Limit

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Site Analyzed=K-Kingston, W-Windsor, O-Ottawa, R-Richmond Hill, B-Barrie

Tahir Yapici Ph.D
Lab Supervisor

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C.O.C.: DW 25322

REPORT No. B18-25322

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 23-Aug-18

JOB/PROJECT NO.: Drinking Water

DATE REPORTED: 30-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.		Clyde River Old Tower - Raw	Clyde River Bridge 1 - Raw		
			Sample I.D.		B18-25322-1	B18-25322-2		
			Date Collected		15-Aug-18	15-Aug-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
TDS (Calc. from Cond.)	mg/L	1	Calc.	24-Aug-18	24	11		
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	8.5	3.4		
Fluoride	mg/L	0.1	SM4110C	23-Aug-18/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	23-Aug-18/O	< 0.1	< 0.1		
Nitrite (N)	mg/L	0.1	SM4110C	23-Aug-18/O	< 0.1	< 0.1		
Sulphate	mg/L	1	SM4110C	23-Aug-18/O	2	< 1		
Cyanide (Total)	mg/L	0.005	SM 4500CN	28-Aug-18/K	0.008	0.008		
Arsenic	mg/L	0.0001	EPA 200.8	27-Aug-18/O	< 0.0001	< 0.0001		
Barium	mg/L	0.001	SM 3120	30-Aug-18/O	0.004	0.001		
Cadmium	mg/L	0.000015	EPA 200.8	27-Aug-18/O	< 0.000015	< 0.000015		
Chromium	mg/L	0.002	SM 3120	30-Aug-18/O	< 0.002	< 0.002		
Chromium (VI)	mg/L	0.002	MOE E3056	28-Aug-18/O	< 0.002	< 0.002		
Copper	mg/L	0.002	SM 3120	30-Aug-18/O	< 0.002	< 0.002		
Iron	mg/L	0.005	SM 3120	30-Aug-18/O	0.076	0.030		
Lead	mg/L	0.00002	EPA 200.8	27-Aug-18/O	0.00014	0.00002		
Manganese	mg/L	0.001	SM 3120	30-Aug-18/O	0.001	0.001		
Selenium	mg/L	0.001	EPA 200.8	27-Aug-18/O	< 0.001	< 0.001		
Silver	mg/L	0.0001	EPA 200.8	27-Aug-18/O	< 0.0001	< 0.0001		
Zinc	mg/L	0.005	SM 3120	30-Aug-18/O	< 0.005	< 0.005		
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K	< 0.002	< 0.002		
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	3.2	0.9		
Surfactants Content	mg/L	0.05	SM-5540-C	24-Aug-18/O	< 0.05 ¹	< 0.05 ¹		
E coli	cfu/100mL	1	MOE E3407	23-Aug-18/O	2	0		

¹ Subcontracted to Niagara Analytical

R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Tahir Yapici Ph.D

Lab Supervisor

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C.O.C.: ---

REPORT No. B18-27273

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 10-Sep-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 21-Sep-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.		Mun. of Clyde River			
			Sample I.D.		B18-27273-1			
			Date Collected		30-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO ₃)	mg/L	1	SM 3120	12-Sep-18/O	115			
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	10-Sep-18/O	13			
pH @25°C	pH Units		SM 4500H	10-Sep-18/O	5.97			
Conductivity @25°C	µmho/cm	1	SM 2510B	10-Sep-18/O	571			
Total Suspended Solids	mg/L	3	SM 2540D	12-Sep-18/O	21			
Chloride	mg/L	0.5	SM4110C	10-Sep-18/O	35.0			
Nitrite (N)	mg/L	0.1	SM4110C	10-Sep-18/O	5.2			
Nitrate (N)	mg/L	0.1	SM4110C	10-Sep-18/O	35.0			
Sulphate	mg/L	1	SM4110C	10-Sep-18/O	4			
Aluminum (total)	mg/L	0.01	SM 3120	12-Sep-18/O	0.33			
Arsenic	mg/L	0.0001	EPA 200.8	10-Sep-18/O	0.0011			
Cadmium	mg/L	0.005	SM 3120	12-Sep-18/O	< 0.005			
Calcium	mg/L	0.02	SM 3120	12-Sep-18/O	23.1			
Chromium	mg/L	0.002	SM 3120	12-Sep-18/O	< 0.002			
Cobalt	mg/L	0.005	SM 3120	12-Sep-18/O	< 0.005			
Copper	mg/L	0.002	SM 3120	12-Sep-18/O	0.103			
Iron	mg/L	0.005	SM 3120	12-Sep-18/O	0.568			
Lead	mg/L	0.02	SM 3120	12-Sep-18/O	< 0.02			
Mercury	mg/L	0.00002	SM 3112 B	17-Sep-18/O	0.00006			
Manganese	mg/L	0.001	SM 3120	12-Sep-18/O	0.541			
Magnesium	mg/L	0.02	SM 3120	12-Sep-18/O	14.0			
Nickel	mg/L	0.01	SM 3120	12-Sep-18/O	< 0.01			
Potassium	mg/L	0.1	SM 3120	12-Sep-18/O	22.0			
Sodium	mg/L	0.2	SM 3120	12-Sep-18/O	45.9			
Zinc	mg/L	0.005	SM 3120	12-Sep-18/O	0.087			
Ammonia (N)-Total	mg/L	0.01	SM4500-NH ₃ -H	12-Sep-18/K	10.1			

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-27273

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 10-Sep-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 21-Sep-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Mun. of Clyde River			
			Sample I.D.	B18-27273-1			
			Date Collected	30-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Phosphorus-Total	mg/L	0.01	E3199A.1	12-Sep-18/K	8.46		
Phenolics	mg/L	0.002	MOEE 3179	11-Sep-18/K	0.105		
BOD	mg/L	3	SM 5210B	10-Sep-18/O	42		
Total Organic Carbon	mg/L	0.2	EPA 415.1	12-Sep-18/O	53.1		
Fecal Coliform	cfu/100mL	1	MOE E3371	10-Sep-18/O	71000		
Acenaphthene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Acenaphthylene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Anthracene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Benzo(a)anthracene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Benzo(a)pyrene	µg/L	0.01	EPA 8270	12-Sep-18/K	< 0.06		
Benzo(b)fluoranthene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Benzo(b+k)fluoranthene	µg/L	0.1	EPA 8270	12-Sep-18/K	< 0.6		
Benzo(g,h,i)perylene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Benzo(k)fluoranthene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Chrysene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Dibenzo(a,h)anthracene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Fluoranthene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Fluorene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Indeno(1,2,3-cd)pyrene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Methylnaphthalene,1-	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Methylnaphthalene,2-	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Naphthalene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3	¹	
Phenanthrene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Pyrene	µg/L	0.05	EPA 8270	12-Sep-18/K	< 0.3		
Terphenyl-d14 (SS)	% rec.	10	EPA 8270	12-Sep-18/K	69.0		
Benzene	µg/L	0.5	EPA 8260	12-Sep-18/R	< 0.5		
Toluene	µg/L	0.5	EPA 8260	12-Sep-18/R	< 0.5		

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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REPORT No. B18-27273

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 10-Sep-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 21-Sep-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Mun. of Clyde River			
			Sample I.D.	B18-27273-1			
			Date Collected	30-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Ethylbenzene	µg/L	0.5	EPA 8260	12-Sep-18/R	< 0.5		
Xylene, m,p-	µg/L	1.0	EPA 8260	12-Sep-18/R	< 1.0		
Xylene, o-	µg/L	0.5	EPA 8260	12-Sep-18/R	< 0.5		
Xylene, m,p,o-	µg/L	1.1	EPA 8260	12-Sep-18/R	< 1.1		
Toluene-d8 (SS)	% rec.		EPA 8260	12-Sep-18/R	93.7		
PHC F1 (C6-C10)	µg/L	50	MOE E3421	12-Sep-18/R	< 50		
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	11-Sep-18/K	< 50		
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	11-Sep-18/K	< 400		
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	11-Sep-18/K	< 400		
Oil & Grease-Total	mg/L	1.0	SM 5520	12-Sep-18/K	6.4		

1 NOTE: Elevated RL due to sample matrix interferences.

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-28571

Report To:

Municipality of Clyde River

Box 89,
Clyde River Nunavut X0A 0E0 Canada

Attention: SAO -

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 19-Sep-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 05-Oct-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Mun. of Clyde River			
			Sample I.D.	B18-28571-1			
			Date Collected	12-Sep-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	26-Sep-18/O	50		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	19-Sep-18/O	134		
pH @25°C	pH Units		SM 4500H	19-Sep-18/O	7.61		
Conductivity @25°C	µmho/cm	1	SM 2510B	19-Sep-18/O	599		
Total Suspended Solids	mg/L	3	SM 2540D	20-Sep-18/O	8		
Chloride	mg/L	0.5	SM4110C	20-Sep-18/O	50.7		
Nitrite (N)	mg/L	0.1	SM4110C	20-Sep-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	20-Sep-18/O	9.4		
Sulphate	mg/L	1	SM4110C	20-Sep-18/O	5		
Aluminum (total)	mg/L	0.01	SM 3120	26-Sep-18/O	0.46		
Arsenic	mg/L	0.0005	EPA 200.8	27-Sep-18/O	0.0014		
Cadmium	mg/L	0.005	SM 3120	26-Sep-18/O	< 0.005		
Calcium	mg/L	0.02	SM 3120	26-Sep-18/O	11.4		
Chromium	mg/L	0.002	SM 3120	26-Sep-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	26-Sep-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	26-Sep-18/O	0.054		
Iron (Total)	mg/L	0.005	SM 3120	26-Sep-18/O	0.789		
Lead	mg/L	0.02	SM 3120	26-Sep-18/O	< 0.02		
Mercury	mg/L	0.00002	SM 3112 B	26-Sep-18/O	0.00006		
Manganese (Total)	mg/L	0.001	SM 3120	26-Sep-18/O	0.322		
Magnesium	mg/L	0.02	SM 3120	26-Sep-18/O	5.25		
Nickel	mg/L	0.01	SM 3120	26-Sep-18/O	< 0.01		
Potassium	mg/L	0.1	SM 3120	26-Sep-18/O	18.8		
Sodium	mg/L	0.2	SM 3120	26-Sep-18/O	44.3		
Zinc	mg/L	0.005	SM 3120	26-Sep-18/O	0.051		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH ₃ -H	20-Sep-18/K	33.8		

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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DATE REPORTED: 05-Oct-18

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SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Mun. of Clyde River			
			Sample I.D.	B18-28571-1			
			Date Collected	12-Sep-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Phosphorus-Total	mg/L	0.01	E3199A.1	20-Sep-18/K	3.78		
Phenolics	mg/L	0.002	MOEE 3179	21-Sep-18/K	0.008		
BOD	mg/L	3	SM 5210B	20-Sep-18/O	9		
Total Organic Carbon	mg/L	0.2	EPA 415.1	21-Sep-18/O	30.8		
Fecal Coliform	cfu/100mL	1	MOE E3371	19-Sep-18/O	< 10		
Acenaphthene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Acenaphthylene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Anthracene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Benzo(a)anthracene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Benzo(a)pyrene	µg/L	0.01	EPA 8270	24-Sep-18/K	< 0.01		
Benzo(b)fluoranthene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Benzo(b+k)fluoranthene	µg/L	0.1	EPA 8270	24-Sep-18/K	< 0.1		
Benzo(g,h,i)perylene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Benzo(k)fluoranthene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Chrysene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Dibenzo(a,h)anthracene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Fluoranthene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Fluorene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Methylnaphthalene,1-	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Methylnaphthalene,2-	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Naphthalene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Phenanthrene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Pyrene	µg/L	0.05	EPA 8270	24-Sep-18/K	< 0.05		
Terphenyl-d14 (SS)	% rec.	10	EPA 8270	24-Sep-18/K	101		
Benzene	µg/L	0.5	EPA 8260	20-Sep-18/R	< 0.5		
Toluene	µg/L	0.5	EPA 8260	20-Sep-18/R	< 0.5		

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 19-Sep-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 05-Oct-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Mun. of Clyde River			
			Sample I.D.	B18-28571-1			
			Date Collected	12-Sep-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Ethylbenzene	µg/L	0.5	EPA 8260	20-Sep-18/R	< 0.5		
Xylene, m,p-	µg/L	1.0	EPA 8260	20-Sep-18/R	< 1.0		
Xylene, o-	µg/L	0.5	EPA 8260	20-Sep-18/R	< 0.5		
Xylene, m,p,o-	µg/L	1.1	EPA 8260	20-Sep-18/R	< 1.1		
Toluene-d8 (SS)	% rec.		EPA 8260	20-Sep-18/R	104		
PHC F1 (C6-C10)	µg/L	50	MOE E3421	20-Sep-18/R	< 50		
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	21-Sep-18/K	< 50		
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	21-Sep-18/K	< 400		
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	21-Sep-18/K	< 400		
Oil & Grease-Total	mg/L	1.0	SM 5520	26-Sep-18/K	< 1.0		

NOTE: Fecal Coliform passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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