

**ANNUAL REPORT
FOR THE MUNICIPALITY OF KIMMIRUT, 2022**

YEAR BEING REPORTED: 2022

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence # 3BM-KIM1929 issued to the Municipality of Kimmirut.

- 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 quantities of water used as reported in our On Tap Water Delivery System and the estimated discharge of sewage waste.

Month Reported	Quantity of Water Obtained from all sources (m³)	Quantity of Sewage Waste Discharged (Estimated)
January	1,664,753.69	Same
February	1,662,905.94	Same
March	1,640,054.80	Same
April	1,771,875.90	Same
May	1,483,830.19	Same
June	1,634,907.50	Same
July	1,634,907.50	Same
August	1,680,368.41	Same
September	1,676,271.60	Same
October	1,653,930.40	Same
November	1,588,956.78	Same
December	1,620,011.30	Same
ANNUAL TOTAL	19,712,774.00	Same

Note: The water consumption volume is considered equal to the discharge volume because there is no meter at the end of the discharge pipe.

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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;**

No major modifications or maintenance work carried out during reporting year.

- v. **A list of unauthorized discharges and summary of follow-up action taken;
No unauthorized discharges for the infrastructure under licence 3BM-KIM1929 occurred in 2022.**

No unauthorized discharges for the infrastructure under licence 3BM-KIM1929 occurred in 2021.

- vi. **A summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;**

No abandonment and restoration work was conducted during this reporting year and none is anticipated in the coming year.

- 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;**

Planning Study assessing and prioritizing improvements to the current site will be completed in the Summer 2023. New sewage lagoon is being designed. Request for Water License amendment addressing the effluent quality parameters has been requested.

- viii. **Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and**

None

- ix. **Updates or revisions to the approved Operation and Maintenance Plans.**

None

- x. **ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:**

CGS will work with the Municipality during summer 2023 to ensure all sampling requirements under the water licence are met.

**ANNUAL REPORT
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xi. FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

Upgrades to the solid waste site will include fencing, signage, and hazardous waste segregation and storage. The solid waste site assessment and prioritization report will be submitted with the 2023 Annual Report.

**ANNUAL REPORT
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Appendix A: KIM-3 Effluent Quality Limits

Appendix B: Certificate of Analysis

Appendix C: Hazardous Materials Spill Database, Kimmirut 2022

Appendix D: Kimmirut 2022 CIRNAC Inspection Report

**ANNUAL REPORT
FOR THE MUNICIPALITY OF KIMMIRUT, 2021**

Appendix A

KIM-3 Effluent Quality limits (exiting sewage disposal site)

Parameter	Maximum Concentration of any Grab Sample	DATE: July 21. 2022.
BOD ₅	80 mg/L	60 mg/L
Total Suspended Solids	100 mg/L	70 mg/L
Fecal Coliform	1x10 ⁴ CFU/100 mL	600000
Oil and Grease	No visible sheen	9.0 mg/L
pH	Between 6 and 9	7.82

KIM-5 Effluent Quality Limits (discharge from Enhanced Sewage Disposal Facility)

Parameter	Maximum Concentration of any Grab Sample	DATE: October 12.2022.
BOD ₅	80 mg/L	134 mg/L
Total Suspended Solids	100 mg/L	85 mg/L
Fecal Coliform	1x10 ⁴ CFU/100 mL	2900000
Oil and Grease	No visible sheen 1 mg/L	21 mg/L
pH	Between 6 and 9	7.82

KIM-4 Leachate

Parameter	Maximum Concentration of any Grab Sample	DATE: July 14.2022	DATE: Oct 12.2022
BOD ₅	3 mg/L	10 mg/L	Less than 3 mg/L
Total Suspended Solids	3 mg/L	345 mg/L	82 mg/L
Fecal Coliform	1 cfu/100 mL	150	170
Oil and Grease	1 mg/L	Less than 1 mg/L	Less than 1 mg/L
pH		8.30	7.98

**ANNUAL REPORT
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Appendix B

Enclosed

C.O.C.: G104704

REPORT No. B22-22248

Report To:

Municipality of Kimmirut

P.O Box 120,
Kimmirut NU X0A 0N0

Attention: Dustin Jonnas

Caduceon Environmental Laboratories

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

DATE RECEIVED: 14-Jul-22

JOB/PROJECT NO.: Waste Water

DATE REPORTED: 21-Jul-22

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	KIM-3 Waste Water Location			
			Sample I.D.	B22-22248-1			
			Date Collected	13-Jul-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	19-Jul-22/O	337		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	14-Jul-22/O	356		
pH @25°C	pH Units		SM 4500H	14-Jul-22/O	7.82		
Conductivity @25°C	µmho/cm	1	SM 2510B	14-Jul-22/O	1000		
Total Suspended Solids	mg/L	3	SM2540D	18-Jul-22/K	70		
Chloride	mg/L	0.5	SM4110C	18-Jul-22/O	34.3		
Nitrite (N)	mg/L	0.1	SM4110C	18-Jul-22/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	18-Jul-22/O	< 0.1		
Sulphate	mg/L	1	SM4110C	18-Jul-22/O	112		
Aluminum	mg/L	0.01	SM 3120	19-Jul-22/O	0.08		
Arsenic	mg/L	0.0005	EPA 200.8	15-Jul-22/O	0.0006		
Calcium	mg/L	0.02	SM 3120	19-Jul-22/O	102		
Cadmium	mg/L	0.005	SM 3120	19-Jul-22/O	< 0.005		
Chromium	mg/L	0.002	SM 3120	19-Jul-22/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	19-Jul-22/O	0.006		
Copper	mg/L	0.002	SM 3120	19-Jul-22/O	0.056		
Iron	mg/L	0.005	SM 3120	19-Jul-22/O	6.59		
Lead	mg/L	0.02	SM 3120	19-Jul-22/O	< 0.02		
Magnesium	mg/L	0.02	SM 3120	19-Jul-22/O	20.0		
Manganese	mg/L	0.001	SM 3120	19-Jul-22/O	0.698		
Mercury	mg/L	0.00002	SM 3112 B	15-Jul-22/O	0.00003		
Nickel	mg/L	0.01	SM 3120	19-Jul-22/O	0.02		
Sodium	mg/L	0.2	SM 3120	19-Jul-22/O	33.0		
Zinc	mg/L	0.005	SM 3120	19-Jul-22/O	0.176		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH ₃ -H	19-Jul-22/K	41.8		



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

Tahir Yapici Ph.D

Lab Supervisor

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

C.O.C.: G104704

REPORT No. B22-22248

Report To:

Municipality of Kimmirut

P.O Box 120,

Kimmirut NU X0A 0N0

Attention: Dustin Jonnas

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 14-Jul-22

JOB/PROJECT NO.: Waste Water

DATE REPORTED: 21-Jul-22

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		KIM-3 Waste Water Location			
			Sample I.D.		B22-22248-1			
			Date Collected		13-Jul-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Phenolics	mg/L	0.001	MOEE 3179	18-Jul-22/K	0.049			
BOD(5 day)	mg/L	3	SM 5210B	15-Jul-22/K	60			
Total Organic Carbon	mg/L	0.2	EPA 415.2	14-Jul-22/O	34.1			
Oil & Grease-Total	mg/L	1.0	SM 5520	18-Jul-22/K	9.0			
Fecal Coliform	cfu/100mL	1	MOE E3371	14-Jul-22/O	600000			
PHC F1 (C6-C10)	µg/L	25	MOE E3421	18-Jul-22/R	< 25			
Comment-purgeable	-		-	18-Jul-22	-			
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	15-Jul-22/K	80			
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	15-Jul-22/K	600			
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	15-Jul-22/K	< 400			
Comment-extractable	-		-	15-Jul-22	NDP			



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Lab Supervisor

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REPORT No. B22-22254

Report To:

Municipality of Kimmirut

P.O Box 120,

Kimmirut NU X0A 0N0

Attention: John Mabberi

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 14-Jul-22

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 22-Jul-22

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Leachate			
			Sample I.D.	B22-22254-1			
			Date Collected	14-Jul-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	19-Jul-22/O	277		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	14-Jul-22/O	132		
pH @25°C	pH Units		SM 4500H	14-Jul-22/O	8.30		
Conductivity @25°C	µmho/cm	1	SM 2510B	14-Jul-22/O	544		
Total Suspended Solids	mg/L	3	SM2540D	18-Jul-22/K	345		
Chloride	mg/L	0.5	SM4110C	18-Jul-22/O	13.4		
Nitrite (N)	mg/L	0.1	SM4110C	18-Jul-22/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	18-Jul-22/O	< 0.1		
Sulphate	mg/L	1	SM4110C	18-Jul-22/O	137		
Calcium	mg/L	0.02	SM 3120	19-Jul-22/O	84.0		
Potassium	mg/L	0.1	SM 3120	19-Jul-22/O	3.2		
Aluminum	mg/L	0.01	SM 3120	19-Jul-22/O	0.55		
Arsenic	mg/L	0.0005	EPA 200.8	15-Jul-22/O	< 0.0005		
Cadmium	mg/L	0.000070	EPA 200.8	15-Jul-22/O	< 0.000070		
Chromium	mg/L	0.002	SM 3120	19-Jul-22/O	0.002		
Cobalt	mg/L	0.005	SM 3120	19-Jul-22/O	< 0.005		
Copper	mg/L	0.002	SM 3120	19-Jul-22/O	0.006		
Iron	mg/L	0.005	SM 3120	19-Jul-22/O	1.41		
Lead	mg/L	0.0001	EPA 200.8	15-Jul-22/O	0.0015		
Manganese	mg/L	0.001	SM 3120	19-Jul-22/O	0.028		
Mercury	mg/L	0.00002	SM 3112 B	15-Jul-22/O	< 0.00002		
Nickel	mg/L	0.01	SM 3120	19-Jul-22/O	< 0.01		
Zinc	mg/L	0.005	SM 3120	19-Jul-22/O	0.022		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH ₃ -H	19-Jul-22/K	0.04		
Phosphorus-Total	mg/L	0.01	E3516.2	19-Jul-22/K	0.29		
Phenolics	mg/L	0.001	MOEE 3179	18-Jul-22/K	< 0.001		
BOD(5 day)	mg/L	3	SM 5210B	15-Jul-22/K	10		



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2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 14-Jul-22

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 22-Jul-22

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Leachate			
			Sample I.D.	B22-22254-1			
			Date Collected	14-Jul-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Total Organic Carbon	mg/L	0.2	EPA 415.2	14-Jul-22/O	7.8		
Fecal Coliform	cfu/100mL	1	MOE E3371	14-Jul-22/O	150		
Benzene	µg/L	0.5	EPA 8260	18-Jul-22/R	< 0.5		
Toluene	µg/L	0.5	EPA 8260	18-Jul-22/R	< 0.5		
Ethylbenzene	µg/L	0.5	EPA 8260	18-Jul-22/R	< 0.5		
Xylene, m,p-	µg/L	1.0	EPA 8260	18-Jul-22/R	< 1.0		
Xylene, o-	µg/L	0.5	EPA 8260	18-Jul-22/R	< 0.5		
Xylene, m,p,o-	µg/L	1.1	EPA 8260	18-Jul-22/R	< 1.1		
Toluene-d8 (SS)	% rec.		EPA 8260	18-Jul-22/R	109		
PHC F1 (C6-C10)	µg/L	25	MOE E3421	18-Jul-22/R	< 25		
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	15-Jul-22/K	< 50		
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	15-Jul-22/K	400		
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	15-Jul-22/K	< 400		
Oil & Grease-Total	mg/L	1.0	SM 5520	18-Jul-22/K	< 1.0		
Dibromofluoromethane	% rec.		EPA 8260	18-Jul-22/R	101		
Bromofluorobenzene,4(SS)	% rec.		EPA 8260	18-Jul-22/R	102		
Acenaphthene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Acenaphthylene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Anthracene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Benzo(a)anthracene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Benzo(a)pyrene	µg/L	0.01	EPA 8270	18-Jul-22/K	< 0.01		
Benzo(b)fluoranthene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Benzo(b+k)fluoranthene	µg/L	0.1	EPA 8270	18-Jul-22/K	< 0.1		
Benzo(g,h,i)perylene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Benzo(k)fluoranthene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Chrysene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Dibenzo(a,h)anthracene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		



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Tahir Yapici Ph.D

Lab Supervisor

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C.O.C.: ---

REPORT No. B22-22254

Report To:

Municipality of Kimmirut

P.O Box 120,

Kimmirut NU X0A 0N0

Attention: John Mabberi

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 14-Jul-22

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 22-Jul-22

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Leachate			
			Sample I.D.	B22-22254-1			
			Date Collected	14-Jul-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Fluoranthene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Fluorene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Methylnaphthalene,1-	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Methylnaphthalene,2-	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Naphthalene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Phenanthrene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Pyrene	µg/L	0.05	EPA 8270	18-Jul-22/K	< 0.05		
Terphenyl-d14 (SS)	% rec.	10	EPA 8270	18-Jul-22/K	64.0		



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Tahir Yapici Ph.D

Lab Supervisor

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C.O.C.: G095971

REPORT No. B22-30985

Report To:

Municipality of Kimmirut

P.O Box 120,

Kimmirut NU X0A 0N0

Attention: John Mabberi

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 03-Oct-22

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 12-Oct-22

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Landfill Run-Off			
			Sample I.D.	B22-30985-1			
			Date Collected	28-Sep-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	05-Oct-22/O	359		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	03-Oct-22/O	147		
pH @25°C	pH Units		SM 4500H	03-Oct-22/O	7.98		
Conductivity @25°C	µmho/cm	1	SM 2510B	03-Oct-22/O	642		
Total Suspended Solids	mg/L	3	SM2540D	05-Oct-22/K	82		
Chloride	mg/L	0.5	SM4110C	04-Oct-22/O	5.4		
Nitrite (N)	mg/L	0.1	SM4110C	04-Oct-22/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	04-Oct-22/O	0.7		
Sulphate	mg/L	1	SM4110C	04-Oct-22/O	194		
Calcium	mg/L	0.02	SM 3120	05-Oct-22/O	111		
Potassium	mg/L	0.1	SM 3120	05-Oct-22/O	1.5		
Aluminum	mg/L	0.01	SM 3120	05-Oct-22/O	0.77		
Arsenic	mg/L	0.0005	EPA 200.8	07-Oct-22/O	< 0.0005		
Cadmium	mg/L	0.000070	EPA 200.8	07-Oct-22/O	< 0.000070		
Chromium	mg/L	0.002	SM 3120	05-Oct-22/O	0.003		
Cobalt	mg/L	0.005	SM 3120	05-Oct-22/O	< 0.005		
Copper	mg/L	0.002	SM 3120	05-Oct-22/O	0.004		
Iron	mg/L	0.005	SM 3120	05-Oct-22/O	1.84		
Lead	mg/L	0.0001	EPA 200.8	07-Oct-22/O	0.0021		
Manganese	mg/L	0.001	SM 3120	05-Oct-22/O	0.051		
Mercury	mg/L	0.00002	SM 3112 B	06-Oct-22/O	< 0.00002		
Nickel	mg/L	0.01	SM 3120	05-Oct-22/O	< 0.01		
Zinc	mg/L	0.005	SM 3120	05-Oct-22/O	0.057		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH ₃ -H	05-Oct-22/K	0.03		
Phosphorus-Total	mg/L	0.01	E3516.2	07-Oct-22/K	0.02		
Phenolics	mg/L	0.001	MOEE 3179	07-Oct-22/K	< 0.001		



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Tahir Yapici Ph.D
Lab Manager - Ottawa District

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REPORT No. B22-30985

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Kimmirut NU X0A 0N0

Attention: John Mabberi

Caduceon Environmental Laboratories

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

DATE RECEIVED: 03-Oct-22

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 12-Oct-22

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Landfill Run-Off			
			Sample I.D.	B22-30985-1			
			Date Collected	28-Sep-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD(5 day)	mg/L	3	SM 5210B	06-Oct-22/K	< 3		
Total Organic Carbon	mg/L	0.2	EPA 415.2	04-Oct-22/O	2.6		
Oil & Grease-Total	mg/L	1.0	SM 5520	06-Oct-22/K	< 1.0		
Fecal Coliform	cfu/100mL	1	MOE E3371	03-Oct-22/O	170		
PHC F1 (C6-C10)	µg/L	25	MOE E3421	05-Oct-22/R	< 25		
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	05-Oct-22/K	< 50		
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	05-Oct-22/K	< 400		
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	05-Oct-22/K	< 400		
Acenaphthene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Acenaphthylene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Anthracene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Benzo(a)anthracene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Benzo(a)pyrene	µg/L	0.01	EPA 8270	06-Oct-22/K	< 0.01		
Benzo(b)fluoranthene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Benzo(b+k)fluoranthene	µg/L	0.1	EPA 8270	06-Oct-22/K	< 0.1		
Benzo(g,h,i)perylene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Benzo(k)fluoranthene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Chrysene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Dibenzo(a,h)anthracene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Fluoranthene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Fluorene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Methylnaphthalene,1-	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Methylnaphthalene,2-	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Naphthalene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Phenanthrene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		
Pyrene	µg/L	0.05	EPA 8270	06-Oct-22/K	< 0.05		



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

Tahir Yapici Ph.D

Lab Manager - Ottawa District

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C.O.C.: G095971

REPORT No. B22-30985

Report To:

Municipality of Kimmirut

P.O Box 120,

Kimmirut NU X0A 0N0

Attention: John Mabberi

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 03-Oct-22

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 12-Oct-22

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Landfill Run-Off			
			Sample I.D.	B22-30985-1			
			Date Collected	28-Sep-22			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Terphenyl-d14 (SS)	% rec.	10	EPA 8270	06-Oct-22/K	86.0		
Benzene	µg/L	0.5	EPA 8260	05-Oct-22/R	< 0.5		
Toluene	µg/L	0.5	EPA 8260	05-Oct-22/R	< 0.5		
Ethylbenzene	µg/L	0.5	EPA 8260	05-Oct-22/R	< 0.5		
Xylene, m,p-	µg/L	1.0	EPA 8260	05-Oct-22/R	< 1.0		
Xylene, o-	µg/L	0.5	EPA 8260	05-Oct-22/R	< 0.5		
Xylene, m,p,o-	µg/L	1.1	EPA 8260	05-Oct-22/R	< 1.1		
Dibromofluoromethane (SS)	% rec.		EPA 8260	05-Oct-22/R	97.9		
Toluene-d8 (SS)	% rec.		EPA 8260	05-Oct-22/R	102		
Bromofluorobenzene,4(SS)	% rec.		EPA 8260	05-Oct-22/R	102		



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Tahir Yapici Ph.D

Lab Manager - Ottawa District

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C.O.C.: G095971

REPORT No. B22-30986

Report To:

Municipality of Kimmirut

P.O Box 120,

Kimmirut NU X0A 0N0

Attention: Dustin Jonnas

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 03-Oct-22

JOB/PROJECT NO.: Waste Water

DATE REPORTED: 12-Oct-22

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		KIM-4 Waste Water Run Off	KIM-5 Waste Water Run Off		
			Sample I.D.		B22-30986-1	B22-30986-2		
			Date Collected		28-Sep-22	28-Sep-22		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Conductivity @25°C	µmho/cm	1	SM 2510B	03-Oct-22/O	960	957		
Nitrite (N)	mg/L	0.1	SM4110C	04-Oct-22/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	04-Oct-22/O	< 0.1	< 0.1		
Chloride	mg/L	0.5	SM4110C	04-Oct-22/O	44.4	43.6		
Sulphate	mg/L	1	SM4110C	04-Oct-22/O	63	69		
Fecal Coliform	cfu/100mL	1	MOE E3371	03-Oct-22/O	20000	2900000		
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-Oct-22/O	319	318		
Aluminum	mg/L	0.01	SM 3120	05-Oct-22/O	0.26	0.21		
Calcium	mg/L	0.02	SM 3120	05-Oct-22/O	55.2	53.8		
Cadmium	mg/L	0.005	SM 3120	05-Oct-22/O	< 0.005	< 0.005		
Cobalt	mg/L	0.005	SM 3120	05-Oct-22/O	< 0.005	< 0.005		
Copper	mg/L	0.002	SM 3120	05-Oct-22/O	0.083	0.073		
Chromium	mg/L	0.002	SM 3120	05-Oct-22/O	0.002	< 0.002		
Iron	mg/L	0.005	SM 3120	05-Oct-22/O	1.98	1.94		
Magnesium	mg/L	0.02	SM 3120	05-Oct-22/O	11.6	11.1		
Manganese	mg/L	0.001	SM 3120	05-Oct-22/O	0.164	0.174		
Sodium	mg/L	0.2	SM 3120	05-Oct-22/O	39.4	35.5		
Nickel	mg/L	0.01	SM 3120	05-Oct-22/O	< 0.01	< 0.01		
Lead	mg/L	0.02	SM 3120	05-Oct-22/O	< 0.02	< 0.02		
Zinc	mg/L	0.005	SM 3120	05-Oct-22/O	0.125	0.120		
Hardness (as CaCO3)	mg/L	1	SM 3120	05-Oct-22/O	186	180		
Arsenic	mg/L	0.0005	EPA 200.8	07-Oct-22/O	< 0.0005	< 0.0005		
Total Organic Carbon	mg/L	0.2	EPA 415.2	04-Oct-22/O	19.9	16.4		
Mercury	mg/L	0.00002	SM 3112 B	06-Oct-22/O	0.00003 ¹	0.00003 ¹		
pH @25°C	pH Units		SM 4500H	03-Oct-22/O	7.83	7.82		
Oil & Grease-Total	mg/L	1.0	SM 5520	06-Oct-22/K	25.7	21.0		



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Tahir Yapici Ph.D
Lab Manager - Ottawa District

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C.O.C.: G095971

REPORT No. B22-30986

Report To:

Municipality of Kimmirut

P.O Box 120,

Kimmirut NU X0A 0N0

Attention: Dustin Jonnas

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 03-Oct-22

JOB/PROJECT NO.: Waste Water

DATE REPORTED: 12-Oct-22

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	KIM-4 Waste Water Run Off	KIM-5 Waste Water Run Off		
			Sample I.D.	B22-30986-1	B22-30986-2		
			Date Collected	28-Sep-22	28-Sep-22		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD(5 day)	mg/L	3	SM 5210B	06-Oct-22/K	154	134	
Ammonia (N)-Total	mg/L	0.01	SM4500- NH3-H	05-Oct-22/K	62.8	68.6	
Phenolics	mg/L	0.001	MOEE 3179	07-Oct-22/K	0.098	0.078	
Total Suspended Solids	mg/L	3	SM2540D	05-Oct-22/K	105	85	
PHC F1 (C6-C10)	µg/L	25	MOE E3421	06-Oct-22/R	< 25	< 25	
Comment-purgeable	-		-	06-Oct-22	-	-	
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	05-Oct-22/K	50	< 50	
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	05-Oct-22/K	1600	1400	
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	05-Oct-22/K	600	500	
Comment-extractable	-		-	05-Oct-22	NDP/HO	NDP/HO	

1 solids present in Hg bottle



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Tahir Yapici Ph.D

Lab Manager - Ottawa District

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**ANNUAL REPORT
FOR THE MUNICIPALITY OF KIMMIRUT, 2021**

Appendix C

No spills in reporting year 2022.

**ANNUAL REPORT
FOR THE MUNICIPALITY OF KIMMIRUT, 2021**

Appendix D

No CIRNAC report received in fiscal year 2022.