

C.O.C.: ---

REPORT No. B18-21512

Report To:

Hamlet of Pangnirtung

P.O. Box 253,
Pangnirtung Nunavut X0A 0R0 Canada

Attention: Billy Qaqasiq

Caduceon Environmental Laboratories

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

DATE RECEIVED: 23-Jul-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 31-Jul-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Pan 4 Sludge	Pan 5 Solid Waste	Pan 6 Metal Dump	
			Sample I.D.	B18-21512-1	B18-21512-2	B18-21512-3	
			Date Collected	17-Jul-18	17-Jul-18	17-Jul-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	24-Jul-18/O	1870	20	33
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	24-Jul-18/O	36	< 5	16
pH @25°C	pH Units		SM 4500H	24-Jul-18/O	7.22	6.59	7.40
Conductivity @25°C	µmho/cm	1	SM 2510B	24-Jul-18/O	19300	42	66
Total Suspended Solids	mg/L	3	SM2540D	24-Jul-18/K	24	18	< 3
Chloride	mg/L	0.5	SM4110C	26-Jul-18/O	7080	2.8	5.3
Nitrite (N)	mg/L	0.1	SM4110C	26-Jul-18/O	< 5	< 0.1	< 0.1
Nitrate (N)	mg/L	0.1	SM4110C	26-Jul-18/O	< 5	< 0.1	< 0.1
Sulphate	mg/L	1	SM4110C	26-Jul-18/O	913	1	6
Aluminum	mg/L	0.01	SM 3120	24-Jul-18/O	0.08	0.51	0.12
Arsenic	mg/L	0.0005	EPA 200.8	24-Jul-18/O	0.0015	< 0.0005	< 0.0005
Cadmium	mg/L	0.005	SM 3120	24-Jul-18/O	< 0.005	< 0.005	< 0.005
Calcium	mg/L	0.02	SM 3120	24-Jul-18/O	137	5.26	10.1
Chromium	mg/L	0.002	SM 3120	24-Jul-18/O	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	0.005	SM 3120	24-Jul-18/O	0.013	< 0.005	< 0.005
Copper	mg/L	0.002	SM 3120	24-Jul-18/O	< 0.002	0.003	0.003
Iron	mg/L	0.005	SM 3120	24-Jul-18/O	3.71	0.788	1.26
Lead	mg/L	0.02	SM 3120	24-Jul-18/O	< 0.02	< 0.02	< 0.02
Magnesium	mg/L	0.02	SM 3120	24-Jul-18/O	372	1.57	1.85
Manganese	mg/L	0.001	SM 3120	24-Jul-18/O	0.157	0.016	0.066
Mercury	mg/L	0.00002	SM 3112 B	26-Jul-18/O	0.00002	0.00003	< 0.00002
Nickel	mg/L	0.01	SM 3120	24-Jul-18/O	< 0.01	< 0.01	< 0.01
Potassium	mg/L	0.1	SM 3120	24-Jul-18/O	139	0.3	0.6
Sodium	mg/L	0.2	SM 3120	24-Jul-18/O	3780	2.9	4.6
Zinc	mg/L	0.005	SM 3120	24-Jul-18/O	0.076	0.033	0.191
Ammonia (N)-Total	mg/L	0.01	SM4500-NH ₃ -H	25-Jul-18/K	0.70	0.03	0.13

NOTE: Fecal Coliform passed acceptable holding times upon arrival at Lab. Headspace present in VOC vials.



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.

C.O.C.: ---

REPORT No. B18-21512

Report To:

Hamlet of Pangnirtung

P.O. Box 253,
Pangnirtung Nunavut X0A 0R0 Canada

Attention: Billy Qaqasiq

Caduceon Environmental Laboratories

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

DATE RECEIVED: 23-Jul-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 31-Jul-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Pan 4 Sludge	Pan 5 Solid Waste	Pan 6 Metal Dump	
			Sample I.D.	B18-21512-1	B18-21512-2	B18-21512-3	
			Date Collected	17-Jul-18	17-Jul-18	17-Jul-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Phosphorus-Total	mg/L	0.01	E3199A.1	25-Jul-18/K	0.05	0.06	0.04
Phenolics	mg/L	0.001	MOEE 3179	27-Jul-18/K	< 0.1	0.003	0.003
BOD	mg/L	3	SM 5210B	23-Jul-18/O	< 3	< 3	< 3
Total Organic Carbon	mg/L	0.2	EPA 415.1	24-Jul-18/O	0.3	7.4	7.5
Fecal Coliform	cfu/100mL	1	MOE E3371	23-Jul-18/O	< 10	20	< 10
Benzene	µg/L	0.5	EPA 8260	24-Jul-18/O	< 0.5	< 0.5	< 0.5
Toluene	µg/L	0.5	EPA 8260	24-Jul-18/O	< 0.5	< 0.5	< 0.5
Ethylbenzene	µg/L	0.5	EPA 8260	24-Jul-18/O	< 0.5	< 0.5	< 0.5
Xylene, m,p-	µg/L	0.4	EPA 8260	24-Jul-18/O	< 0.4	< 0.4	< 0.4
Xylene, o-	µg/L	0.1	EPA 8260	24-Jul-18/O	< 0.1	< 0.1	< 0.1
Xylene, m,p,o-	µg/L	0.4	EPA 8260	24-Jul-18/O	< 0.4	< 0.4	< 0.4
Toluene-d8 (SS)	%		EPA 8260	24-Jul-18/O	97.0	97.0	97.0
PHC F1 (C6-C10)	µg/L	20	MOE E3421	24-Jul-18/O	39	< 20	< 20
PHC F2 (>C10-C16)	µg/L	50	MOE E3421	25-Jul-18/K	< 50	< 50	< 50
PHC F3 (>C16-C34)	µg/L	400	MOE E3421	25-Jul-18/K	< 400	< 400	< 400
PHC F4 (>C34-C50)	µg/L	400	MOE E3421	25-Jul-18/K	< 400	< 400	< 400
Oil & Grease-Total	mg/L	1.0	SM 5520	25-Jul-18/K	2.8	3.2	3.2
Acenaphthene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Acenaphthylene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Anthracene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	µg/L	0.01	EPA 8270	25-Jul-18/K	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Benzo(b+k)fluoranthene	µg/L	0.1	EPA 8270	25-Jul-18/K	< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Chrysene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05

NOTE: Fecal Coliform passed acceptable holding times upon arrival at Lab. Headspace present in VOC vials.



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.

C.O.C.: ---

REPORT No. B18-21512

Report To:

Hamlet of Pangnirtung

P.O. Box 253,
Pangnirtung Nunavut X0A 0R0 Canada

Attention: Billy Qaqasiq

Caduceon Environmental Laboratories

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

DATE RECEIVED: 23-Jul-18

JOB/PROJECT NO.: Landfill Leachate

DATE REPORTED: 31-Jul-18

P.O. NUMBER:

SAMPLE MATRIX: Leachate

WATERWORKS NO.

			Client I.D.	Pan 4 Sludge	Pan 5 Solid Waste	Pan 6 Metal Dump	
			Sample I.D.	B18-21512-1	B18-21512-2	B18-21512-3	
			Date Collected	17-Jul-18	17-Jul-18	17-Jul-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Dibenzo(a,h)anthracene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Fluoranthene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Fluorene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Methylnaphthalene,1-	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Methylnaphthalene,2-	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Naphthalene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Phenanthrene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Pyrene	µg/L	0.05	EPA 8270	25-Jul-18/K	< 0.05	< 0.05	< 0.05
Terphenyl-d14 (SS)	% rec.	10	EPA 8270	25-Jul-18/K	98.0	104	99.0

NOTE: Fecal Coliform passed acceptable holding times upon arrival at Lab. Headspace present in VOC vials.



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.