



Nunavut District Office

P.O. Box 100

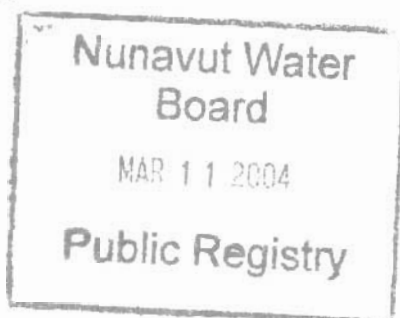
Iqaluit, NU, X0A 0H0

Tel: (867) 975-4289

Fax: (867) 979-6445

March 2, 2004

**Imelda Angootealuk
Senior Administrative Officer
Hamlet of Whale Cove
Nunavut X0A 0S0**



Your file - Votre référence

Our file - Notre référence
NWB3WHA0207

INTERNAL	
PC	dp
MA	
FO	
LA	
BS	
ST	
TA1	
TA2	
RC	
ED	
CH	
BRD	
EXT.	

Re: Amendment to Water Licence Inspection Report sent out on November 14, 2003.

I am writing to notify you that updated sample results received for samples taken in August 2003 have revealed that leachate flowing out of the landfill exceeds the limits set out in the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories 1992*. The leachate in the Hamlet of Whale Cove landfill exceeded the guidelines for Aluminum (4.6 mg/L > 2.0 mg/L) and also for Iron (7400 ug/l > 300 ug/L). As outlined in the previous Water Licence Inspection report, measures need to be in place to control and contain landfill leachate to prevent it from transporting contaminants into aquatic environments. I will mail you a copy of the final results from Taiga Lab. If you have any questions or concerns please don't hesitate to contact me.

Sincerely,

Scott Stewart
Water Resource Officer
Field Operations
Nunavut District Office
Iqaluit, NU X0A 0H0
Ph: (867) 975-4289
Fax: (867) 979-6445
stewarts@inac.gc.ca

cc:
NWB (Jim Wall)
CG&T Rankin Inlet (Bryan Purdy)
EC Baffin Region (Sid Bruinsma)
Baffin Health & Social Services (Bruce Trotter)



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Iqaluit

Attn: Scott Stewart

Sample ID: Landfill seep Wha-2

Taiga Sample ID: 232796

Client Project:

Sample Type: sewage

Received Date: 20-Aug-03

Location: Hamlet of Whale Cove

Sampling Date: 14-Aug-03

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Colour	80		5	27-Aug-03
Conductivity, Specific	527	µS/cm	0.3	27-Aug-03
pH	7.77	pH units	0.05	27-Aug-03
Solids, Total Suspended	170	mg/L	3	21-Aug-03
Turbidity	114	NTU	0.1	08-Sep-03
<u>Nutrients</u>				
Ammonia as N	0.859	mg/L	0.005	29-Aug-03
Nitrate+Nitrite as N	0.951	mg/L	0.008	02-Sep-03
Organic Carbon, Total	7.3	mg/L	0.2	11-Sep-03
<u>Major Ions</u>				
Calcium	37.9	mg/L	0.05	25-Aug-03
Magnesium	8.89	mg/L	0.02	25-Aug-03
Potassium	5.24	mg/L	0.03	26-Aug-03
Sodium	44.1	mg/L	0.02	25-Aug-03



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Iqaluit

Attn: Scott Stewart

Sample ID: Landfill seep Wha-2

Taiga Sample ID: 232796

Sulphate	49	mg/L	3	21-Aug-03
<u>Metals, Total</u>				
Aluminum	4600	µg/L	30	18-Nov-03
Arsenic	6	µg/L	1	26-Aug-03
Barium	54.9	µg/L	0.1	20-Sep-03
Beryllium	0.1	µg/L	0.1	20-Sep-03
Cadmium	0.2	µg/L	0.1	20-Sep-03
Cesium	0.6	µg/L	0.1	20-Sep-03
Chromium	13.7	µg/L	0.3	20-Sep-03
Cobalt	3.9	µg/L	0.1	20-Sep-03
Copper	22.0	µg/L	0.2	20-Sep-03
Iron	7420	µg/L	30	25-Aug-03
Lead	3.5	µg/L	0.1	20-Sep-03
Lithium	8.3	µg/L	0.3	20-Sep-03
Manganese	124	µg/L	0.1	18-Nov-03
Mercury	< 0.01	µg/L	0.01	25-Aug-03
Molybdenum	75.0	µg/L	0.1	20-Sep-03
Nickel	14.6	µg/L	0.1	20-Sep-03
Selenium	1	µg/L	1	20-Sep-03
Silver	< 0.1	µg/L	0.1	20-Sep-03
Strontium	222	µg/L	0.1	18-Nov-03



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Iqaluit

Attn: Scott Stewart

Sample ID: Landfill seep Wha-2

Taiga Sample ID: 232796

Thallium	0.1	µg/L	0.1	20-Sep-03
Titanium	260	µg/L	0.1	20-Sep-03
Uranium	1.9	µg/L	0.1	20-Sep-03
Vanadium	12.0	µg/L	0.1	20-Sep-03
Zinc	28	µg/L	10	20-Sep-03



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Iqaluit

Attn: Scott Stewart

Sample ID: Lagoon seep Wha-3

Taiga Sample ID: 232797

Client Project:

Sample Type: sewage

Received Date: 20-Aug-03

Location: Hamlet of Whale Cove

Sampling Date: 14-Aug-03

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Colour	50		5	27-Aug-03
Conductivity, Specific	586	µS/cm	0.3	27-Aug-03
pH	7.49	pH units	0.05	27-Aug-03
Solids, Total Suspended	6	mg/L	3	21-Aug-03
Turbidity	5.6	NTU	0.1	08-Sep-03
<u>Nutrients</u>				
Ammonia as N	3.17	mg/L	0.005	29-Aug-03
Nitrate+Nitrite as N	0.366	mg/L	0.008	02-Sep-03
Organic Carbon, Total	31.8	mg/L	0.2	11-Sep-03
<u>Major Ions</u>				
Calcium	40.3	mg/L	0.05	25-Aug-03
Magnesium	5.93	mg/L	0.02	25-Aug-03
Potassium	9.10	mg/L	0.03	26-Aug-03
Sodium	59.9	mg/L	0.02	25-Aug-03



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Iqaluit

Attn: Scott Stewart

Sample ID: Lagoon seep Wha-3

Taiga Sample ID: 232797

Sulphate	7	mg/L	3	21-Aug-03
<u>Metals, Total</u>				
Aluminum	32	µg/L	30	20-Sep-03
Arsenic	6	µg/L	1	25-Aug-03
Barium	15.4	µg/L	0.1	20-Sep-03
Beryllium	< 0.1	µg/L	0.1	20-Sep-03
Cadmium	0.1	µg/L	0.1	20-Sep-03
Cesium	< 0.1	µg/L	0.1	20-Sep-03
Chromium	1.2	µg/L	0.3	20-Sep-03
Cobalt	2.0	µg/L	0.1	20-Sep-03
Copper	5.7	µg/L	0.2	20-Sep-03
Iron	1481	µg/L	30	04-Sep-03
Lead	0.3	µg/L	0.1	20-Sep-03
Lithium	2.9	µg/L	0.3	20-Sep-03
Manganese	408	µg/L	0.1	18-Nov-03
Mercury	0.03	µg/L	0.01	27-Aug-03
Molybdenum	1.1	µg/L	0.1	20-Sep-03
Nickel	5.6	µg/L	0.1	20-Sep-03
Selenium	1	µg/L	1	20-Sep-03
Silver	< 0.1	µg/L	0.1	20-Sep-03
Strontium	187	µg/L	0.1	18-Nov-03



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Iqaluit

Attn: Scott Stewart

Sample ID: Lagoon seep Wha-3

Taiga Sample ID: 232797

Thallium	< 0.1	µg/L	0.1	20-Sep-03
Titanium	3.0	µg/L	0.1	20-Sep-03
Uranium	0.1	µg/L	0.1	20-Sep-03
Vanadium	0.5	µg/L	0.1	20-Sep-03
Zinc	14	µg/L	10	20-Sep-03

Subcontracted Organics

Phenols	0.8	µg/L	0.5	04-Sep-03
---------	-----	------	-----	-----------



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Iqaluit

Attn: Scott Stewart

Sample ID: Freshwater Lk. Wha-1

Taiga Sample ID: 232802

Client Project:

Sample Type: freshwater

Received Date: 20-Aug-03

Location: Hamlet of Whale Cove

Sampling Date: 14-Aug-03

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Colour	5		5	27-Aug-03
Conductivity, Specific	285	µS/cm	0.3	25-Aug-03
pH	7.50	pH units	0.05	25-Aug-03
Solids, Total Suspended	<3	mg/L	3	21-Aug-03
Turbidity	1.9	NTU	0.1	08-Sep-03
<u>Nutrients</u>				
Ammonia as N	0.052	mg/L	0.005	29-Aug-03
Nitrate+Nitrite as N	<0.008	mg/L	0.008	02-Sep-03
Organic Carbon, Total	4.1	mg/L	0.2	11-Sep-03
<u>Major Ions</u>				
Calcium	22.8	mg/L	0.05	25-Aug-03
Magnesium	4.19	mg/L	0.02	25-Aug-03
Potassium	1.61	mg/L	0.03	26-Aug-03
Sodium	25.0	mg/L	0.02	25-Aug-03



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Attn: Scott Stewart

Sample ID: Freshwater Lk. Wha-1

Taiga Sample ID: 232802

Sulphate	10	mg/L	3	20-Aug-03
<u>Metals, Total</u>				
Aluminum	< 30	µg/L	30	20-Sep-03
Arsenic	< 1	µg/L	1	25-Aug-03
Barium	10.4	µg/L	0.1	20-Sep-03
Beryllium	< 0.1	µg/L	0.1	20-Sep-03
Cadmium	0.2	µg/L	0.1	20-Sep-03
Cesium	< 0.1	µg/L	0.1	20-Sep-03
Chromium	26.5	µg/L	0.3	20-Sep-03
Cobalt	< 0.1	µg/L	0.1	20-Sep-03
Copper	2.1	µg/L	0.2	20-Sep-03
Iron	50	µg/L	30	04-Sep-03
Lead	0.1	µg/L	0.1	20-Sep-03
Lithium	1.5	µg/L	0.3	20-Sep-03
Manganese	7.3	µg/L	0.1	20-Sep-03
Mercury	0.29	µg/L	0.01	27-Aug-03
Molybdenum	1.4	µg/L	0.1	20-Sep-03
Nickel	1.0	µg/L	0.1	20-Sep-03
Selenium	< 1	µg/L	1	20-Sep-03
Silver	< 0.1	µg/L	0.1	20-Sep-03
Strontium	110	µg/L	0.1	18-Nov-03



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND WR

Attn: Scott Stewart

Sample ID: Freshwater Lk. Wha-1

Taiga Sample ID: 232802

Thallium	< 0.1	µg/L	0.1	20-Sep-03
Titanium	2.4	µg/L	0.1	20-Sep-03
Uranium	< 0.1	µg/L	0.1	20-Sep-03
Vanadium	0.8	µg/L	0.1	20-Sep-03
Zinc	< 10	µg/L	10	20-Sep-03