



Aboriginal Affairs and
Northern Development Canada

Affaires autochtones et
Développement du Nord Canada

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North Mackenzie District
P.O. Box 2100
Inuvik, NT X0E 0T0

Telephone: 867-777-8900
Fax: 867-777-2090

June 13, 2013

Hamlet of Tuktoyaktuk
P.O. Box 120
Tuktoyaktuk, NT X0E 1C0

Sent by fax/e-mail: (867) 977-2110

Attn: Davie Krengnektak, Public Works Foreman

**RE: JUNE 13, 2013 EMERGENCY DECANT OF SOLID WASTE
DISPOSAL FACILITY LAGOON, HAMLET OF TUKTOYAKTUK**

Dear Mr. Krengnektak,

As per your fax dated June 13, 2013 from the Incorporated Hamlet of Tuktoyaktuk (the 'Hamlet') it is apparent there is a need for the Hamlet to conduct an "emergency decant" of the Solid Waste Disposal Facility Lagoon (the 'Lagoon') due to the recent breach of the berm where the water is overflowing and since there hasn't been the 30 days notice prior to discharge as per Part D, Item 9 of the Water Licence. The purpose of this decant is to lower water levels in the Lagoon, thus preventing structural failure of the berm and cease uncontrolled discharge. Since the Hamlet's original call on May 29, 2013 regarding the decanting of the Lagoon the water has risen consistently.

To consider this request the Hamlet collected (as per SNP Part B, Item 3) water samples on May 31, 2013. To consider this discharge Aboriginal Affairs and Northern Development Canada (AANDC) reviewed the Hamlet's Water Licence N7L3-0714 (the 'Licence') and the Lagoon water samples taken by the Hamlet during May 31, 2013 at Surveillance Network Program (SNP) station 0714-3 (Lagoon). Specifically the samples were analysed as per the Licence requirements.

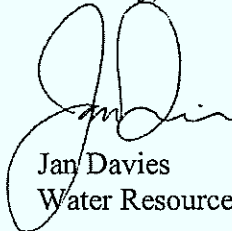
Upon review of the sample results, the Total Suspended Solids were elevated at 206 mg/L compared to the effluent quality criteria of 180 mg/L in the Water Licence. This could have been from sampling stirring up sediments but in light of the abundant sources of water in the area due to spring melt etc. there should be adequate dilution. There is generally no concern as parameters are acceptable when compared to available Canadian Council of Ministers for the Environment Chapter 4 Marine guidelines and are also below historical background levels.

In light of the above review AANDC **APPROVES** the “emergency decant” as per Part D, Item 10 of the Water Licence. Furthermore, this emergency decant is approved under the following conditions:

1. Provide a detailed log of pump run time including pump rate and total daily discharge in cubic meters (m³);
2. The Hamlet must adhere to all other applicable conditions in the Licence. Specifically, please review Part D, Items 12 to 20.
3. During discharge please ensure that SNP Part B, Item 3 is carried out and that **SNP 0714-3 is sampled at least one time during discharge. When discharge is complete please ensure that the sample results are forwarded to this office for review.**
4. **The Hamlet is to discharge from the Lagoon as long as needed to achieve the freeboard limit of 0.5 metres as required by the Water Licence in Part D: Conditions Applying to Waste Disposal, Item 20.**

If you have any questions or concerns regarding the enclosed, and/or if additional information is required please contact me at (867) 777-8909.

Sincerely,



Jan Davies
Water Resource Officer

Cc: Conrad Baetz, District Manager, North Mackenzie District, Inuvik, NT - email
Freda Wilson, Office and Finance Administrator, NWTWB, Inuvik, NT - email
Robert Savoury, Environmental Health Officer, GNWT, Inuvik, NT - email



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
130327

- FINAL REPORT -

Prepared For: Hamlet of Tuktoyaktuk

Address: P.O. Box 120
Tuktoyaktuk, NT
X0E 1C0

Attn: Sandy Adam

Facsimile: (867) 977-2110

Final report has been reviewed and approved by:


Helene Harper
Manager

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Wednesday, June 12, 2013
Print Date: Wednesday, June 12, 2013

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

Taiga Batch No.:
130327

- CERTIFICATE OF ANALYSIS -

Client Sample ID:

Taiga Sample ID: 001

Client Project:

Sample Type: Unknown Water

Received Date: 31-May-13

Sampling Date: 31-May-13

Sampling Time: 8:00

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
pH	7.39		pH units	03-Jun-13	SM4500-H:B	
Solids, Total Suspended	206	3	mg/L	03-Jun-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.182	0.005	mg/L	04-Jun-13	SM4500-NH3:	
Biochemical Oxygen Demand	2	2	mg/L	31-May-13	SM5210:B	62
<u>Microbiology</u>						
Coliforms, Fecal (other)	15	1	CFU/100mL	31-May-13	SM9222:D	
<u>Organics</u>						
Hexane Extractable Material	No Container		mg/L		EPA1664A	16
<u>Trace Metals, Total</u>						
Cadmium	< 0.1	0.1	µg/L	11-Jun-13	EPA200.8	
Chromium	0.5	0.1	µg/L	11-Jun-13	EPA200.8	
Cobalt	0.2	0.1	µg/L	11-Jun-13	EPA200.8	
Copper	2.7	0.2	µg/L	11-Jun-13	EPA200.8	

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Taiga Sample ID: **001**

Iron	334	5	µg/L	11-Jun-13	EPA200.8
Lead	0.4	0.1	µg/L	11-Jun-13	EPA200.8
Manganese	56.7	0.1	µg/L	11-Jun-13	EPA200.8
Mercury	0.02	0.01	µg/L	11-Jun-13	EPA200.8
Nickel	1.2	0.1	µg/L	11-Jun-13	EPA200.8
Zinc	29	5	µg/L	11-Jun-13	EPA200.8

Subcontracted Organics

Polychlorinated Biphenyls	< 0.1	0.1	ug/L	06-Jun-13	EPA8082
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Client Sample ID:

Taiga Sample ID: **001**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

- 16** *Test requested but no sample bottle received*
- 62** *Residual DO was less than 1 mg/L. Unable to repeat analysis at lower dilution. Holding time exceeded.*

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

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