

## Review Comment Table

<b>Board:</b>	SLWB
<b>Review Item:</b>	Norman Wells Airport Landfarm - 2017 Annual Water Licence Report (S17L8-003)
<b>File(s):</b>	<a href="#">S17L8-003</a>
<b>Proponent:</b>	Transport Canada
<b>Document(s):</b>	<a href="#">2017 Annual Water Licence Report</a> (2.1 MB)
<b>Item For Review Distributed On:</b>	Apr 3 at 14:14 <a href="#">Distribution List</a>
<b>Reviewer Comments Due By:</b>	May 1, 2018
<b>Proponent Responses Due By:</b>	May 10, 2018
<b>Item Description:</b>	<p>Transport Canada, Prairie and Northern Region - Environmental Services, Contaminated Sites (TC) has submitted its 2017 Annual Water Licence Report in accordance with Part B, Condition 11 of Licence <a href="#">S17L8-003</a>. Although formal Board approval is not required under the Licence, the Board must be satisfied that the Licensee has met the requirements of the Licence.</p> <p><b>Reviewers are invited to submit any questions and/or comments by May 1, 2018.</b></p>
<b>General Reviewer Information:</b>	All documents that have been uploaded to this review are also available on our public registry. If you have any questions or comments regarding this review or the Online Review System, please contact Board staff identified.
<b>Contact Information:</b>	Sabrina Sturman 867-598-2413

## Comment Summary

GNWT - ENR: Central Email GNWT				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
3	General File	<p><b>Comment</b> (<a href="#">doc</a>) ENR Letter with Comments and Recommendations and Attachment</p> <p><b>Recommendation</b></p>		

4	General File	<b>Comment</b> ( <a href="#">doc</a> ) Attachment: 2018 Metadata Template <b>Recommendation</b>		
1	Topic 1: Water Quality Data	<b>Comment</b> Transport Canada provided its 2017 water quality sampling results in Appendix A in a PDF format. However, the utility of this data is limited by third parties in its current format (i.e. pdf). <b>Recommendation</b> 1) ENR recommends that Transport Canada submit all water quality data associated with the sewage lagoon stations, surface water sampling stations, landfill ground water stations and storm water effluent stations to the public registry in an accessible file type (e.g., csv or xls).	<b>May 9:</b> We will consider this recommendation. Thank you.	No comment
2	Topic 2: Metadata Template	<b>Comment</b> ENR appreciates that Transport Canada provided all monitoring sampling results in Appendix A of the 2017 Annual Report. However, to ensure consistency among reporting by proponents, ENR encourages the use of a standard metadata template. Metadata sets the context for the water quality data, providing a description of data that was collected as part of a water quality sampling program and includes field conditions and a description of laboratory analyses conducted. Metadata standards are required to ensure the proper use and interpretation of the data by the users. Also, as with the water quality data itself, ENR	<b>May 9:</b> Thank you.	No comment

		<p>encourages that the metadata be available in an accessible file type.</p> <p><b>Recommendation</b> 1) ENR recommends that Transport Canada complete the attached metadata template and provide it with the associated water quality data to the Board public registry in an accessible file type (e.g., csv or xls).</p>		
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**Sahtu Renewable Resource Board: Colin Macdonald**

<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
1	Page 1	<p><b>Comment</b> “No Surveillance Network Program sampling in 2017 as groundwater wells were damaged”. This lack of sampling is concerning given the fact that the liner has tears and may be in poor condition. Is it not possible to dig new wells and sample them in the same year?</p> <p><b>Recommendation</b> Please provide a rationale for not constructing new wells and sampling groundwater later in 2017, i.e., during the September and October work.</p>	<p><b>May 9:</b> A new network of ground water monitoring wells was installed, including one upgradient of the LTU footprint, in early 2018. The timing and scope of the last reporting did not capture this.</p>	Response acceptable
2	Section 4 Facility Design.	<p><b>Comment</b> This section repeats the previous information on the design but does not include information on the current status of the LTU and an assessment of the membrane. Is the LTU functioning as expected. Is there runoff? Leachate?</p> <p><b>Recommendation</b> Provide more details on the current status of the membrane and if the LTU is functioning as expected. In this way, it</p>	<p><b>May 9:</b> Current status of the LTU membrane was evaluated and reported on. A protective layer of soil resides on top of the LTU floor, covering most of the liner. Ponding water indicates the liner is functioning as intended. Some small tears were observed during maintenance and these were repaired as encountered. Where</p>	Response acceptable

		should be able to evaluate 2017 activities in relation to work that needs to be conducted.	exposed to UV on the perimeter berms, the liner has become brittle. Care is being taken not to exacerbate this degradation.	
3	Page 2	<p><b>Comment</b> The lack of design drawings and details of the LTU by BluMetric and presumably Public Works and Transport Canada, is concerning, given that they are the only information available on the construction of the LTU and the conditions of the land prior to construction.</p> <p><b>Recommendation A</b> schematic diagram of the LTU, with water collection points, known tears in the liner, damaged and proposed wells, standing water and soil sampling sites should be added to the report. It would be useful to add the topography because the photos indicate some slumping.</p>	<p><b>May 9:</b> A topographical survey will be conducted during the 2018-19 field season to better record the LTU as it currently exists. All collection points are GPS recorded. All liner repair sites are recorded.</p>	Response acceptable
4	Page 3	<p><b>Comment</b> “The first maintenance event also included liner repairs of areas of known damage that were observed during sampling. Soil was removed from these areas using hand shovels and the damage was repaired by applying liner patches using liner adhesive.”</p> <p><b>Recommendation</b> The torn liner was repaired where tears were visible. Is the liner torn in other areas?</p>	<p><b>May 9:</b> The liner on the LTU floor is covered with a protective layer of soil. Tears were repaired when encountered. The observation of ponding water within the LTU indicates there are not extensive breaches in the liner. The exposed areas of liner along the upper berms is degrading due to UV light. Care is being taken not to exacerbate this degradation.</p>	Response acceptable

5	Page 5 Site Inspections	<p><b>Comment</b> BluMetric reports a number of liner tears in the three site inspections. Is it possible that there are tears that aren't visible (e.g., beneath the soil in the LTU)?</p> <p><b>Recommendation</b> What is the general assessment of the containment of soil and water by the liner in its current condition?</p>	<p><b>May 9:</b> Please see similar question responses above.</p>	<p>Response acceptable</p>
6	Page 7 Soil	<p><b>Comment</b> Twenty soil samples from the LTU will be analysed for metals, PHCs, PAHs, PCBs and other contaminants.</p> <p><b>Recommendation</b> No recommendations. The analytical plan for soil looks comprehensive.</p>	<p><b>May 9:</b> Thank you.</p>	<p>No comment</p>
7	11.3 Surface Water	<p><b>Comment</b> Data for hydrocarbons are presented in the Appendix, but no other data (water quality parameters or metals).</p> <p><b>Recommendation</b> A more comprehensive analysis of the standing water should be conducted before any release.</p>	<p><b>May 9:</b> Prior to any dewatering and discharge, TC will be conducting a comprehensive analysis of the ponded water as per the SLWB licence requirements.</p>	<p>Response acceptable</p>



May 1, 2018

Sabrina Sturman  
Regulatory Specialist  
Sahtu Land and Water Board  
Box 1, Fort Good Hope  
Northwest Territories  
X0E 0H0

Dear Ms. Sturman,

**Re:           Transport Canada  
              Water Licence – S17L8-003  
              2017 Annual Water Licence Report  
              Norman Wells Airport Landfarm  
              Request for Review and Comments**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the report at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board.

### **Topic 1: Water Quality Data**

#### **Comment(s):**

Transport Canada provided its 2017 water quality sampling results in Appendix A in a PDF format. However, the utility of this data is limited by third parties in its current format (i.e. pdf).

#### **Recommendation(s):**

- 1) ENR recommends that Transport Canada submit all water quality data associated with the sewage lagoon stations, surface water sampling stations, landfill ground water stations and storm water effluent stations to the public registry in an accessible file type (e.g., csv or xls).

## Topic 2: Metadata Template

### Comment(s):

ENR appreciates that Transport Canada provided all monitoring sampling results in Appendix A of the 2017 Annual Report. However, to ensure consistency among reporting by proponents, ENR encourages the use of a standard metadata template. Metadata sets the context for the water quality data, providing a description of data that was collected as part of a water quality sampling program and includes field conditions and a description of laboratory analyses conducted. Metadata standards are required to ensure the proper use and interpretation of the data by the users. Also, as with the water quality data itself, ENR encourages that the metadata be available in an accessible file type.

### Recommendation(s):

- 1) ENR recommends that Transport Canada complete the attached metadata template and provide it with the associated water quality data to the Board public registry in an accessible file type (e.g., csv or xls).

Comments and recommendations were provided by ENR technical experts in the CIMP Section and the Sahtu Region and were coordinated and collated by the Environmental Assessment and Monitoring Section, Conservation, Assessment and Monitoring (CAM).

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email [patrick.clancy@gov.nt.ca](mailto:patrick.clancy@gov.nt.ca).

Sincerely,



Patrick Clancy  
Environmental Regulatory Analyst  
Environmental Assessment and Monitoring Section  
Conservation, Assessment and Monitoring Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories

Att: 2018 Metadata Template