



Submission Date: June 29<sup>th</sup>, 2014

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**Re: Follow-up to Spill 14-189 Reported on May 31<sup>st</sup>, 2014**  
**Mary River Project - Water Licence No. 2AM-MRY1325**

**Summary:**

During an inspection of the Mine Site Bladder Farm at 4 pm on May 30, open water was observed for the first time this year. A strong odour was encountered and a measurable thickness of fuel (mixture of Jet A and P-50 diesel) was observed on the open water surface of the facility. The product was observed at two locations: near on top of an existing Jet A bladder (south end) and around the sump at the north end. The fuel release was entirely contained within the bladder farm facility which is constructed within engineered lined containment that is inspected annually by a qualified Geotechnical Engineer. The original spill report was submitted on May 31 and was based on available observations and volume estimates at that time of between 4 and 6 m<sup>3</sup>. Subsequent to that report, ongoing remedial and recovery efforts resulted in additional data coming to light that are presented in a supplementary spill report. The supplementary report indicates that a total of approximately 36 m<sup>3</sup> of product/emulsion was recovered. The original and supplementary spill reports are attached.

Photos of the release on June 30, as well as following recovery and remedial efforts are attached. A map showing the bladder farm location is also attached.

**Immediate and Follow-Up Action:**

Since the fuel release, frequent inspections around the foot of the berm of the facility have indicated no leakage to the environment. The facility is located >500 m from the nearest water body. A skimmer was deployed on May 31 and recovery of the fuel-water-emulsion mixture from the surface continued for a 19 day period with decreased product recovered over time. Within one week, the bulk of the remaining P-50 fuel was pumped from the bladders and transferred to the steel tanks at the Mine Site Camp, thereby reducing the risk of further release. An Oily Water Separation/Treatment (OWS) plant was commissioned on June 15 and treatment of hydrocarbon impacted water commenced at that time.

The exact cause of the release is still not apparent but based on the volume of fuel released, it is likely a breach in one or more of the bladders, combined with expected weeping through the bladders. Since there is still some contact water in the facility, and a small relatively small volume of fuel still remaining in each bladder, the identification of the specific breached bladder(s) has not as yet been confirmed. Once all of the fuel has been removed from each bladder, and all of the contact water removed, each bladder will be inspected for the expected breach.

**Recommendations:**

Soon after the fuel release, Baffinland has kept the lead agencies (AANDC and QIA) informed concerning recovery efforts since reporting the release. In addition, on June 4, Baffinland provided AANDC and QIA with an action plan that it had implemented in response to the release. The plan involves the following:

1. Skim off all product from the surface water of the facility. Skimmed product to be re-used on site or shipped south for recycling/reuse.

2. Remove most of the fuel from the facility and transfer to the steel fuel tanks at the Mine Site Camp. A small quantity of fuel will remain in each bladder.
3. Treat and release hydrocarbon contaminated water from the facility.
4. Extract remaining residual fuel from the bladders. Examine each bladder for potential cause of bladder leakage.
5. Remove bladders and store in lined sea-can for shipment south to an accredited disposal facility.
6. Remove piping, ensure decontaminated, and store for reuse.
7. Remediate facility in manner similar to that used for Milne Inlet Bladder Farm decommissioning. (Appendix E.8 – Decommissioning Milne Inlet Fuel Bladder Farm, 2013 QIA and NWB Annual Report).
8. Residual soils from the facility will be stored in a secure facility for future land farming.

**Current Status:**

Recommendations No. 1 – As of June 18, 36,000 litres of free product and emulsion/water mixture has been skimmed and stored in drums and totes now located in on-site lined containment.

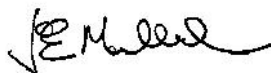
Recommendation No. 2 – 420,000 L of P-50 product has been transferred from the bladders to the steel tanks at the Mine Site Camp within five days of the fuel release.

Recommendation No. 3 – Treatment and discharge of hydrocarbon impacted water has been underway since June 15 utilizing the on-site portable Oily Water Separation/Treatment (OWS) plant. As of June 26, a total of 543 m<sup>3</sup> of hydrocarbon contaminated contact water been treated by the OWS and released. Currently there is less than 0.15 m depth of water around the sump end of the bladder farm.

Recommendations No. 4 to 8 - These activities will be completed before the end of 2014.

Should you require further information or clarification on the above noted spill, please feel free to contact Allan Knight or Trevor Myers at (647) 253-0596 ext. 6010 or the undersigned at (902) 403-1337.

Sincerely,



James Millard, M.Sc., P.Geo.  
Environmental Manager

Attach: Photos, Map, Original and Supplementary NT-NU Spill Report

cc. Michael Anderson, Allan Knight, Trevor Myers, Nicolas Kuzyk, Lea Willemse, Erik Madsen, Baffinland.  
Erik Allain, AANDC  
Manager of Licencing, NWB



**Photo 1:** View from northwest end of facility, open water with floating product layer between 2-4 cm. 430 pm May 31.



**Photo 2:** View from northwest end of facility looking southeast. Note bladders with snow/ice entrainment, making observation and inspection difficult. 430 pm May 31



**Photo 3:** View of south end of facility, using drum skimmer to remove product. Operation conducted on a liner that drains back to the facility. June 1.





**Photo 4:** View of north end of facility on June 28, bladders no longer underwater allowing access to bladders to view remaining fuel and to inspect.



**Photo 5:** View of north end of facility showing oily water treatment plant and low levels of water and bladders remaining in facility. June 28.



**Photo 6:** View from south end of facility looking north showing low water levels and low volumes of fuel remaining in bladders. Only bladder remaining in use is a single Jet A bladder which is closely monitored.





Canada

# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

**REPORT LINE USE ONLY**

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR		REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	<b>REPORT NUMBER</b> _____-_____
	<b>B</b> OCCURRENCE DATE: MONTH – DAY – YEAR		OCCURRENCE TIME			
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
	<b>D</b> GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION				REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
<b>E</b>	LATITUDE			LONGITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION			
	<b>G</b> ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
<b>H</b>	PRODUCT SPILLED		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
<b>I</b>	SPILL SOURCE		SPILL CAUSE		AREA OF CONTAMINATION IN SQUARE METRES	
	<b>J</b> FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS					
<b>L</b>	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE	
	<b>M</b> ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE	

**REPORT LINE USE ONLY**

<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLED	REPORT LINE NUMBER
		STATION OPERATOR		YELLOWKNIFE, NT	(867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					





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FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH - DAY - YEAR <b>06-28-2014</b>	REPORT TIME <b>11:30 HRS</b>	<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input checked="" type="checkbox"/> UPDATE # <b>1</b> TO THE ORIGINAL SPILL REPORT		REPORT NUMBER <b>14-189</b>
<b>B</b>	OCCURRENCE DATE: MONTH - DAY - YEAR <b>Observed on 05-30-2014</b>	OCCURRENCE TIME <b>16:00 HRS</b>			
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>IOL - Commercial Lease No.: Q13C301</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MRY1325 Type "A"</b>			
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Mary River Mine Site, Baffin Island</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>71</b> MINUTES <b>19</b> SECONDS <b>29</b>	LONGITUDE DEGREES <b>79</b> MINUTES <b>22</b> SECONDS <b>02</b>			
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Baffinland Iron Mines Corp.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>2275 Middle Road East, Suite 300, Oakville, ON L6H 0C3</b>			
<b>G</b>	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION			
<b>H</b>	PRODUCT SPILLED <b>Probable Jet A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>36 m3 product and emulsion</b>	U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
<b>I</b>	SPILL SOURCE <b>Fuel bladder</b>	SPILL CAUSE <b>Under Investigation</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>250 m2 - open water surface</b>		
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Snow and ice in facility</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT <b>N/A</b>		
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS  <b>Subsequent to the original report submitted on May 31, ongoing remedial and recovery efforts resulted in the recovery of a total of approximately 36 m3 of mixed product/emulsion. Since the fuel release, frequent inspections around the foot of the berm of the facility have indicated no leakage to the environment. The facility is located &gt;500 m from the nearest water body. By June 6, the bulk of the remaining P-50 fuel was pumped from the bladders and transferred to the steel tanks at the Mine Site Camp, thereby reducing the risk of additional release. An action plan was provided to AANDC and QIA on June 4 detailing the planned decommissioning of the facility by the end of 2014. The facility was inspected by the AANDC and QIA inspectors on June 17 and June 24, respectively. The exact cause of the release is still not apparent but based on the volume of fuel released, it is likely a breach in one or more of the bladders, combined with expected weeping through the bladder which is typical. A follow-up report on the spill is to be provided to the inspectors shortly.</b>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Jim Millard</b>	POSITION <b>Env. Manager</b>	EMPLOYER <b>Baffinland Iron Mine</b>	LOCATION CALLING FROM <b>Mine Site</b>	TELEPHONE <b>647-253-0596</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Allan Knight</b>	POSITION <b>Env. Coordinator</b>	EMPLOYER <b>Baffinland Iron Mine</b>	ALTERNATE CONTACT LOCATION <b>Mine Site</b>	ALTERNATE TELEPHONE <b>902-403-1337</b>
REPORT LINE USE ONLY					
<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					