

DE BEERS

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February 24th, 2015

Andrew Howton
Resource Management Officer (Inspector)
16 Yellowknife Airport
Yellowknife, NT
X1A 3T2

Mr. Howton

Re: Follow-up Spill Report – Overfill Event at 500K Fuel Farm – De Beers Gahcho Kue Mine – February 8 2015

Incident Summary:

At approximately 1:45a.m. on February 8th 2015 a diesel overfill of a 500,000 litre tank spill event occurred during the winter road bulk fuel offload resulting in the release of 11,407 litres of diesel into the lined and bermed fuel tank facility. At the time of spill event, volumes were estimated to be 3,000 to 5,000 litres was provided to the Government of the Northwest Territories Spill Line within 24 hours of the event. During the clean-up, a more accurate volume estimate was determined and reported herein.

The NT-NU Spill Report was completed and submitted via email to spills@gov.nt.ca at 8:30pm on February 8th, 2015, and again on February 13th, 2015 after it was discovered that an email error caused the report not to be received by the Spill Line.

Root Cause Analysis:

The internal investigation of the spill event the following key root causes were determined to be:

- Operator relative inexperience with bulk fuel offloads;
- Infrequent measurement of tank fill volume status;
- Procedural controls ineffectively communicated between crews;
- Limited lighting within the work area;
- Absence of high level alarm system.

Remedial Actions Description:

Once the spill was confirmed to be contained, a clean-up operation commenced immediately. As designed, the fuel tank facility was constructed with a gradient that leads to the southern

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portion of the facility allowing the released diesel to be collected and accessed by crews. Visible free product was pumped into drummed storage using a “trash pump”. Once the free product was recovered, contaminated snow was collected using hand shovels and a bobcat taking care to not affect the liner beneath the crush fill material.

Diesel impacted snow recovered from the fuel facility was placed within the oil water separator snow containment tank where it will be treated, tested and released in the warmer months. Drummed free product will be used to fuel the sites waste oil heaters..

After clean-up of the spill was completed, inventory reconciliation estimated that approximately 6,000 litres of free product was recovered while approximately 3,500 litres were accounted for as part of the contaminated snow removal operations. Residual volumes related to the overfill event remain within the impermeable HDPE liner and overlaying fine crushed material. The total containment volume of the fuel farm has been calculated to be 871,050 litres thereby providing containment well in excess of the 110% requirement (>174%) and ensuring that any remaining diesel will not impede on the facilities required containment volume.

Final remedial action will occur during the spring and summer months where melt/rainwater will collect within the berm causing the diesel product to become separated and float on top. As is common practice, all berm water will be removed and treated using the on-site oil water separator and the treated water will be discharged overland under Inspector Authorization.

Corrective Actions Description:

Key findings resulting from the internal investigation has led to the following corrective actions are being implemented for bulk fuel offload operations:

- Review of work procedures and other training documents with offload personnel;
- Increased training for offload personnel including tank volume measurement frequency;
- Placement of light plants to properly illuminate work areas;
- Increased crew size to supplement heightened monitoring of offload activities;
- Installation of a high level alarm during 2015.

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The internal investigation relating to this incident has been concluded and corrective actions implemented. Should you have any questions or concerns, please do not hesitate to contact the undersigned at your convenience.

Thank You



Patrick Kramers
Environmental Superintendent / Gahcho Kué Project

Attachments:

The following attachments are included with this follow-up report:

1. Copy of the original spill report.
2. Photos of:
 - a. Photo 1 – Free Product Within Lined Containment Day After Spill
 - b. Photo 2 – Clean-up Operations In Process Using Pumps and Drums for Containment
 - c. Photo 3 – Drummed Recovered Fuel After Clean-Up Activities Completed
 - d. Photo 4 - Removal of Snow Cover in Known Affected Area – Note Limited Remaining Free Product



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

A	REPORT DATE: MONTH – DAY – YEAR		REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B		OCCURRENCE DATE: MONTH – DAY – YEAR			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	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	
E	LATITUDE			LONGITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
F	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	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		
I	SPILL SOURCE		SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS					
L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE	
	M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE
REPORT LINE USE ONLY						
N	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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Photo 1 – Free Product Within Lined Containment Day After Spill



Photo 2 – Clean-up Operations In Process Using Pumps and Drums for Containment

DE BEERS CANADA INC.
SUITE 300, 5120 – 49th STREET, YELLOWKNIFE, NT X1A 1P8
TEL: 1 (867) 766-7300 FAX: 1 (867) 766-7347
www.debeersgroup.com/canada

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Photo 3 – Drummed Recovered Fuel After Clean-Up Activities Completed



Photo 4 – Removal of Snow Cover in Known Affected Area – Note Limited Remaining Free Product

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