
APPENDIX B
EBA SITE INSPECTION REPORT

EBA Engineering Consultants Ltd.

Creating and Delivering Better Solutions

August 3, 2003

EBA File No: 1740065

Miramar Mining Corporation
Box 2000
Yellowknife, Northwest Territories
X1A 2M1

Attention: Mr. John Stard
Manager, Miramar Conn Mine

Dear Mr. Stard:

Re: Site Inspection Report, Hydrocarbon Spill Incident, Boston Camp, Nunavut

INTRODUCTION

A site inspection was completed at the above location by a representative of EBA Engineering Consultants Ltd., Mr. Brent Murphy, P.Geol. This visit was conducted at the request of Miramar Mining Corporation as per email authorization received from Mr. Ted Mahoney of Miramar Mining Corporation located in Vancouver, B.C. The purpose of the site visit was to investigate the extent of actual and potential environmental impacts resulting from a recent hydrocarbon fuel spill and to recommend mitigation measures designed to minimize future impacts. Mr. Murphy is an environmental professional with over 18 years experience in applied environmental science, of which 12 years have been directly related to the assessment and remediation of sites impacted by hydrocarbon fuel releases. The following letter presents a summary of the observations noted during the site inspection and presents a proposed remedial plan for discussion purposes with associated costs.

The Boston Camp is situated in northern Nunavut, east of Bathurst Inlet, and south of Melville Sound, within the Hope Bay Greenstone Belt, composed of interlayered mafic volcanic and sedimentary rocks of Archean Age on the geological time scale. The camp is also located in the zone of continuous permafrost. The camp is currently one of three camps being used by Miramar Mining Corporation for grassroots and advanced exploration activities directed toward the discovery of economical gold deposits in the Hope Bay region of Nunavut. The other two camps are the Windy and Doris sites respectively.

The site visit was undertaken on July 23 and 24, 2003. Mr Murphy was accompanied to the site by Messrs. Brian Labadie, John Stard and Scott Stringer, of Miramar Mining Corporation. Upon arrival at the Boston camp, Mr. Murphy was met by Ms. Stevii Greschuk, Environmental Co-ordinator for the Boston and Windy Camps, who subsequently accompanied Mr. Murphy during his two day field visit and provided first hand knowledge of the spill incident.

Mirama, Boston Spill-1740065 (Final)

SITE DESCRIPTION

The Boston Camp consists of an approximately 50 person camp constructed for support services directed towards underground mining operations and exploration activities. The camp is situated on a ridge which comprises a peninsula extending northwards into Spyder Lake (Figure 1). The lake shore is approximately 100 metres distant toward the west, 185 metres toward the north and 115 metres toward the east. The regional topographical gradient surrounding the camp ranges from 2% to the north to approximately 20% in the west. The camp covers an approximate area of 325 by 150 metres, covering an area of 48,750 square metres. The camp structures are constructed on a fine to coarse crushed rock pad ranging in thickness from 0.6 metres to 3.0 metres, with the surface of the gravel pad sloping toward the north at a topographical gradient of 1 percent.

The camp consists of a series of trailers which comprise the sleeping and eating quarters, large enough to house approximately 50 persons, situated on the northwest portion of the gravel pad (Figure 1). Situated immediately to the southeast of the sleeping quarters are a series of six tent structures, which act as offices and a core logging area. A crusher enclosure is located 100 metres southeast of the office tents, with a maintenance shop located approximately 120 metres south of the main camp structures along the eastern edge of gravel pad. The maintenance shop houses the camp generator and it is at this location that fuel for the generator is stored in a large volume horizontal tank situated adjacent to the northwest wall of the maintenance shed, approximately 10 metres from the generator.

The underground portal is located approximately 25 metres east of the maintenance building. A gravel covered airstrip is located approximately 500 metres south of the camp site, which allows access to the site. A site map depicting the layout of the camp is presented as Figure 1.

The camp contains a tank farm which is lined with a hydrocarbon resistant membrane, located on the southeast portion of the gravel pad. The tank farm consists of six large sized tanks with two smaller sized tanks. In addition, there are two bermed settling ponds located on the eastern portion of the pad which are not currently in use. A waste water discharge pond is also present on site, situated east of the crusher shed. This pond is lined with a Bentomax liner and is currently in use.

The camp is serviced by a RBC sewage treatment facility which is located northwest of the camp. The discharge from this unit is directed to an area situated north of the north of the camp (Figure 1). Waste products are separated with food waste and paper wastes incinerated in the camp incinerator. Metal and wood products are disposed of in the southern most of the two unused settling ponds. Potable water is obtained from Spyder Lake with the fresh water intake located immediately west of the maintenance shop.

SPILL INCIDENT

According to internal records of Miramar Mining Corporation, approximately 4000 litres of diesel fuel were spilled during the early morning hours of June 28, 2003. The spill occurred in the maintenance shop, at the southwest corner where the camp generator is located. The fuel leaked from a partially open three way valve that serviced lines running from a fuel storage tank to the generator. Major visual evidence of the spill such as the surface pooling of hydrocarbons was not noted at the time of the incidence. However minor or incidental evidence of a spill occurrence consisting of the following observations were noted; the generator had stopped running; the fuel storage tank was empty; and fresh hydrocarbon staining was present under the fuel value next to the generator.

Immediately after the spill occurrence, it was determined by camp personnel that the diesel fuel had migrated through the crushed rock pad and flowed westerly through an installed drain, onto the tundra and the slope that extends to the shores of Spyder Lake (Figure 1). A series of cut off trenches were hand constructed and the topographically down gradient extent of hydrocarbon impacts was determined to be approximately 10 to 15 metres toward Spyder Lake.

The spill was subsequently reported to the applicable regulatory authorities including the NWT Spill line (Spill number 03-452). A representative of the Kitikmeot Inuit Association visited the site on July 2, 2003 to inspect the extent of the impacts.

Subsequent to the spill incident on June 30, 2003, free phase hydrocarbons were identified to be pooling in a small depression located adjacent to the camp helipad, approximately 75 to 90 metres north of the spill site. Due to the limited storage capacity of this depression and the requirement to prevent additional impacts to the environment, pumping operations were initiated to remove the emulsified fuel and water mixture on a daily basis. The mixture was transferred to empty 205 litre fuel barrels (45 imperial gallons capacity) for storage on site. As of July 23 there were approximately 90 barrels containing the water/ fuel oil mixture, (an approximate volume of 18,000 litres) stored at the site.

OBSERVATIONS

The camp site was inspected on July 23, 2003, with emphasis placed on inspecting the spill site and the depression adjacent to helipad in which free phase hydrocarbons were accumulating.

Little visible evidence was noted at the spill site within the generator shed. It was observed that the valve system from which the leak had occurred had been replaced with a series of locking valves. Minor amounts of localized hydrocarbon staining were noted on the fill surface underlying the generator, but free phase hydrocarbons were not noted in this area.

The hand constructed trenches were inspected and it was confirmed on the basis of visual that the overall extent of the hydrocarbons in a westerly direction had not extended past 10 metres surface distance topographically downgradient from the spill site. The trenches contained

hydrocarbon absorbent pads and there was no visible standing water nor free phase hydrocarbons present.

The shores of Spyder Lake topographically downgradient of the spill site were also inspected. Evidence of hydrocarbon impacts was not observed in this area.

The depression located adjacent to the helipad was inspected and water was observed to be flowing into the depression at an approximate rate of 0.04 litres/second (0.5 igpm). The water contained globules of free phase hydrocarbons and emanated a strong odour of diesel fuel. The water was flowing into the depression from the east and south sides of the depression. The water flow consisted of subsurface flow, discharging at the base of the overlying gravel/crushed rock pad in contact with the underlying native soil. The water was assumed to be derived from minor groundwater flow contained within the active layer, resulting from the removal of the seasonal ground frost associated with the onset of the summer thaw period.

The depression in which the water was discharging appeared to be self containing as it was lined with naturally occurring clayey silts to silty clays and the water and fuel oil mixture was accumulating in this area. A gasoline powered pump was located in the depression with the discharge hose extending to an empty barrel. Hydrocarbon impacted soil was also present along the bottom of the depression.

The barrels containing the water/fuel oil mixture were also inspected. These barrels were situated on the south side of the ore stockpile in close proximity to the existing waste water pond. The barrels were sealed and there was no evidence of leakage from the barrels.

Alternative hydrocarbon sources located topographically upgradient of the depression were not identified during the camp inspection. The tank which supplies the fuel for the generator was also closely inspected and there was no evidence of a leak or tank breach. Barrels containing Jet "B" fuel located north of the maintenance shed were also inspected and all barrels were observed to be sealed with no visible surface evidence of a large volume hydrocarbon release (i.e. in excess of 4000 litres).

Subsequently it was determined that the only potential source of the observed hydrocarbon impacts was from the hydrocarbon release attributed to the leaky valve associated with the generator. All other potential sources were discounted.

DISCUSSION

The spill occurred on the early morning of June 28 and free phase hydrocarbons were subsequently observed within the depression situated adjacent to the helipad approximately 75 to 90 metres north of the maintenance shed (i.e. spill location) on June 30. Assuming a steady state laminar flow system over a 2.5 day period, an assumed groundwater velocity of 30 metres per day was calculated for the subsurface water flow. Using the known topographical gradient of 1% and the assumed groundwater velocity inputted into Darcy's Law ($v=Ki$), a hydraulic conductivity in the range of 10^3 to 10^4 would be required to account for the observed site

conditions. The hydraulic conductivities predicted would encompass hydraulic conductivities values typical for fine to coarse unconsolidated sand and gravel deposits but not for a compacted gravel/rock pad stratigraphy which is present on the site.

The crushed rock fill present on the site can be compared with glacial till deposits which exhibit hydraulic conductivities values ranging from less than 10^{-5} metres/day to greater than 10^2 metres per day. A hydraulic conductivity in the range of 10^2 metres per day for the gravel pad and underlying native soils (which is the upper range of values for the glacial tills) was therefore estimated. Combining the assumed hydraulic conductivity with the measured topographical gradient of 1%, free phase hydrocarbons would be expected to flow into the depression next to the helipad, anywhere from 70 to 100 days after a spill incident. This assumption is based on the elimination of surface flow as a flow mechanism.

However, this prediction was not substantiated by field observations as hydrocarbons were observed 75 to 90 metres distant from the spill site, 2.5 days after the occurrence (i.e. on June 30, 2003).

Additionally, the lack of substantive hydrocarbon impacts situated west of the spill site, also raised potential questions regarding the particulars of the spill incidence. The spill site was located approximately five metres from the western edge of the gravel/crushed rock pad, from which the topographically sloped steeply to the west at a gradient of 70% to Spyder Lake. Given the close proximity of the spill site to this steep topographical gradient and the volume of hydrocarbons released, it would be anticipated that major hydrocarbon impacts would occur in this area. However only minor impacts were observed in this area with only minor volumes (i.e. less than 100 litres) of free phase hydrocarbons recovered, leaving the bulk of the 4000 litres of fuel unaccounted for.

Based upon the previous discussion, the site observations associated with the hydrocarbon release did not substantiate the expected groundwater flow behavior and it was concluded that an alternate source of hydrocarbons such as a previous release or spill would correlate with the recorded site observations. This conclusion was based on the following information;

- Lack of any identifiable topographically upgradient hydrocarbon sources from the helipad depression which would more readily account for the occurrence of free phase hydrocarbons in this area so soon after the spill incidence;
- Distance (i.e. 75 to 90 metres) in which the hydrocarbons supposedly migrated in 2.5 days after the spill incident which occurred on June 28, 2003;
- The assumed groundwater velocity of 30 metres per day (based on the reported timing of the spill incident and the first observation of hydrocarbons within the depression), which would indicate an aquifer unit of extremely high hydraulic conductivity similar to an unconsolidated coarse gravel deposit. This assumption was not substantiated by observed site conditions where the stratigraphy is characterized by a compacted gravel/crusher rock pad with substantial fines present. This unit would be expected to have a lower hydraulic conductivity value and would thus have a lower groundwater velocity associated with it; and,

- The lack of significant impacts situated west of the maintenance shed.

The suspected occurrence of an earlier release of hydrocarbons was subsequently confirmed in conversations with various camp personnel on July 23, 2003. It was reported that a similar incident had occurred on March 3, 2003 at which time the generator had stopped operations due to a lack of fuel. At this time an empty fuel storage tank and an open valve were noted at the same location as the spill on June 28, 2003. However at the time, the lack of visible free phase hydrocarbons pooled on the ground surface under the generator was highlighted as evidence that a spill had not occurred.

Based on the observed site conditions and information obtained from camp personnel, it was concluded with reasonable certainty that two hydrocarbon spills had occurred at the Boston camp;

- A release on June 28, 2003 of approximately 4000 litres; and,
- An earlier release which occurred on March 3, which probably released a similar volume of hydrocarbons into the environment.

The lack of evidence of pooled hydrocarbons subsequent to the March 3, 2003 spill, cannot not be used as evidence that a spill did not occur. This observation can be explained by the lack of ground frost in this area during the winter months, which would allow the hydrocarbons to seep into the underlying ground. It is postulated that the continuous operation of the generator in its current location, which produces heat, resulted in the lack of ground frost in this area during the winter months. Also it is suspected that the heat produced by the generator operation has resulted in degradation of permafrost layer in this area, creating a thicker active layer. The net result of this effect, was to produce a localized depression or "bathtub" resulting from the recession of the permafrost –active layer contact to greater depths below the ground surface.

The March 3 hydrocarbon spill did not pool on the ground surface as there was a lack of ground frost within the underlying gravel pad. This feature allowed the hydrocarbon to seep underground and pool within a frost free area created by the release of heat from the generator. This area of pooled hydrocarbons was contained by the presence of ground frost outside of the maintenance shed.

Subsequently, as the ground frost in areas outside the maintenance shed slowly receded with the onset of warmer weather, the pooled hydrocarbons slowly intermixed with groundwater and migrated through the path of least resistance (i.e. contact between gravel pad and underlying natural sediments) toward the depression situated adjacent to the helipad. Local barriers such as the presence of a zone of lower permeability prevented the migration of a large volume of hydrocarbons westward out onto the tundra.

The mixture of hydrocarbons and water was subsequently released into the surface depression after the last of the ground frost was removed on June 30, 2003. It is coincidence that the free phase hydrocarbons were released so soon after the June 28, 2003 spill. The presence of hydrocarbons in the ground for a period of four months (i.e. March to the end of June) is consistent with the observed migration distance and with the assumed hydraulic conductivities for the crushed rock fill and the measured hydraulic gradient for this area..

This scenario also accounts for the lack of a far larger hydrocarbon impact than what was observed associated with the June 28 hydrocarbon release. Due to the “bathtub effect” and the depressed permafrost contact that is suspected to be present under the generator shed, it is assumed that the hydrocarbons resulting from the June 28 have pooled in this area. This feature would have minimized hydrocarbon flow to the west.

PROPOSED REMEDIAL MEASURES

Remedial measures designed to reduce additional impacts to the surrounding environment must be implemented at the Boston site immediately. These measures would be designed to preserve the existing natural integrity of the environment and to minimize any future impact on the waters of Spyder Lake and the surrounding landscape. Remedial measures proposed for implementation and mitigation measures undertaken will be conducted in accordance with the “Spill Contingency Plan” prepared for the Hope Bay Project, dated January 2002. This plan has been approved and accepted by the applicable regulatory agencies in Nunavut.

A phased approach has been developed to address the existing environmental issues located on the site consisting of;

- Seeping free phase hydrocarbons which has impacted the local groundwater contained within the active layer;
- A suspected continual source area of hydrocarbons underneath the generator location; and,
- The presence of hydrocarbon impacted soils.

The proposed approach will consist of strategy combining a water treatment, source contaminant and soil treatment. The program was also designed so as not to disturb existing areas of natural landscape (i.e. tundra) as it is a condition of the existing Water License for the Boston Camp. Therefore all mitigation efforts will be confined to the limits of the existing gravel pad.

For remedial and assessment purpose, it is assumed the Canadian Council of Minister of the Environment (CCME) Guidelines for the Protection of Freshwater Aquatic Life will be used as the remedial standard. Furthermore it is assumed that the recently adopted Canada Wide Standards for Petroleum Hydrocarbons in Soil will be utilized as the soil remedial standards.

A granular activated carbon (GAC) unit is proposed as a means to treat the existing stored hydrocarbon impacted water on the site. This system will remove the existing dissolved phase hydrocarbons from the water column to non-detectable levels allowing the water to be discharged to the environment.

It is proposed that the existing barrels of water currently stored on the site be emptied into the existing waste water pond. This will allow the de-emulsification of the fuel/water mixture, allowing the removal of free phase hydrocarbons, with the use of hydrocarbon adsorbent pads, prior to the water under going treatment thru the GAC unit. This pond is lined with a Bentomax liner and is considered an acceptable water retaining structure, which is currently approved for use. The presence of the liner will assist in minimising potential impacts associated with

potential migration of hydrocarbon impacted water from this pond. Additionally the pond is underlain by the crushed rock pad, approximately three to four metres thick.

A series of collection trenches containing a 200 mm diameter collection well is proposed for construction at the spill site. This system will allow the collection of pooled residual free phase hydrocarbons in this area as well as minimizing additional groundwater movements topographically downgradient toward Spyder Lake. The trench will be excavated to permafrost and the topographically downgradient sides of the trench will be lined with a petroleum resistant HDPE liner, keyed into the permafrost. The trench would be located on the north-western and south-western walls of the maintenance building, with the collection well situated at the south-western corner of the building. The presence of the well will allow for the accumulation and removal of free phase hydrocarbons in this area for off site disposal as well as impacted groundwater.

A series of collection trenches and/or testpits is then recommended to assess the extent of environmental impacts resulting from the migration of hydrocarbons into the helipad depression. Based on the results of this investigation, additional remedial measures may be required.

A land farm area is also proposed for emergency construction at the site. The presence of this structure will allow for the treatment of hydrocarbon impacted soils, which will be derived from the construction of the collection trenches and the test pitting program. An area of approximately 20 by 40 metres situated south of the existing tank farm is proposed for this purpose. This area will be lined with a hydrocarbon resistant HDPE liner.

It is anticipated that the proposed landfarm will hold approximately 400 metres of hydrocarbon impacted soil and will have to operate for an approximate period of three to four years. Should the volume of hydrocarbon impacted soil be larger than expected, additional operating time may be required. Soil that is remediated will be stockpiled on site and can be used for backfilling purposes.

CONCLUSIONS

A site inspection was completed at the Boston Camp operated by Miramar Mining Corporation on July 23 and 24, 2003. The inspection was requested by Miramar to assist in an evaluation of the site following a hydrocarbon release. Mr. Murphy, a representative of EBA Engineering Consultants Ltd., completed the site inspection. The following conclusions have resulted from observations noted during the site inspection;

- 1) A hydrocarbon spill of 4000 litres did occur at the site on June 28, 2003. This spill has resulted in impacts to the environment (i.e. soil and groundwater). The spill resulted from a opened valve situated between the fuel storage tank and the generator;
- 2) The spill was subsequently reported to the applicable regulatory authorities;
- 3) Spyder Lake was not impacted by the initial June 23 spill;

- 4) Free phase hydrocarbons were noted to be accumulating in the depression situated adjacent to the helipad, approximately 75 metres north of the spill site. The presence of hydrocarbons were initially observed in this depression on June 30, 2003, 2.5 days after the spill incidence;
- 5) Additional hydrocarbons sources located topographically upgradient of the depression, that could be contributing to the problem in the depression were not identified during the site inspection;
- 6) Due to observed site conditions, it was suspected that a second (i.e. earlier) hydrocarbon spill had occurred;
- 7) The occurrence of an earlier hydrocarbon release was confirmed in discussions with site personnel;
- 8) Long term storage of hydrocarbon impacted water will be a problem with the onset of colder weather;
- 9) Currently 18,000 litres of hydrocarbon impacted water stored on site;
- 10) The spill site at the generator remains as a suspected long term source of hydrocarbons;

RECOMMENDATIONS

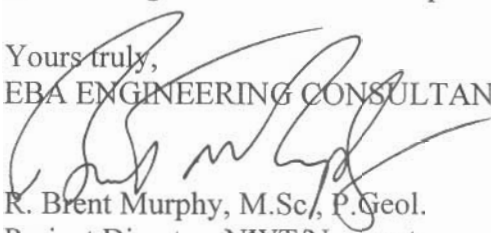
The following recommendations are offered for your review and consideration;

1. Site remedial measures addressing both groundwater and soil issues be implemented as soon as practical to minimise the potential for additional impacts to the environment. The remedial measures would consist of water treatment, and the construction of a collection trench system at the spill, supplemented by a landfarm soil treatment facility to remediate hydrocarbon impacted soils;
2. The preferred water treatment system is granular activated carbon ;
3. A backhoe capable of being transported by a plane, be mobilized to the site to assist with the implementation of site remedial measures;
4. Communications be initiated as soon as possible with the Nunavut regulatory agencies to inform them of the proposed remedial approach;
5. Following implementation of the planned remedial approach, a site assessment be conducted to assist in the determination of the extent of hydrocarbon impacts on the site;
6. The feasibility of mobilizing a larger back hoe during the winter transport season, via the ice roads, for permanent use at the site must be investigated;
7. The feasibility of relocating the generator to a new location within the next year needs to be evaluated. Removal of the generator from the existing site will allow for a more complete remedial program to be undertaken in this area;
8. The existing hand dug trenches situated west of the maintenance shed be monitored on a regular basis to ensure no topographically downgradient migration of hydrocarbons toward Spyder Lake. The existing plastic barriers present in the trenches should be re-established to ensure maximum protection and the trenches should be filled with peat moss to act as an absorbent. This moss will require changing on a semi-regular basis.

A cost estimate to undertake the proposed remedial approach is attached to this letter for your review and comment. Additionally, technical specifications for the proposed water treatment unit are also attached.

We trust that the above information meets with your requirements at this time. Please contact the undersigned should there be questions or concerns regarding this letter.

Yours truly,
EBA ENGINEERING CONSULTANTS LTD.

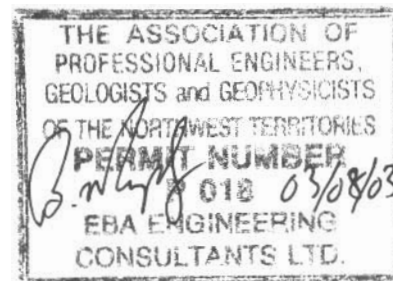

R. Brent Murphy, M.Sc., P.Geol.
Project Director, NWT/Nunavut



RBM/...

c.c. Hugh Wilson
Environmental Manager
Miramar Mining Corporation

Attachments



APPENDIX C

HYDROCARBON SPILL REPORT

09/16/2003 12:14 6048818370

BOSTON

FROM : BARN HOME FAX 988-2186

PHONE NO. : 780 988 2186

AUG. 25 2003 07:47AM P2

NWT SPILL REPORT (Oil, Gas, Hazardous chemicals or other materials)

24 - Hour Report Line



NOTE: 2 PAGES FAXED NO COVER

Phone: (867) 920-8130

Fax: (867) 873-6724

A Report Date and Time August 22/03 14:30	B Date and Time of Spill (if known) August 21/03 14:45	C * Original Report <input type="checkbox"/> Update No.	Spill Number 03-541
D Location and map coordinates (if known) and direction (if moving) Miramar Hope Bay Ltd's (MHBL) Boston Camp, Nunavut. Map coordinates 67° 39.41' North, 106° 23.04' West			
E Party Responsible for Spill Camp Maintenance Foreman			
F Product(s) spilled and estimated quantities (provide metric volumes/weights if possible) P-50 Diesel Fuel. Approximately 150 litres.			
G Cause of spill Transporting an unsecured tidy tank on forklift. This fuel was moved from a stationary generator supply tank into portable enviro-tanks to allow construction of spill containment under the supply tank. It was spilled when transporting it back to refill the supply tank.			
H Is spill terminated? *yes <input type="checkbox"/> no	I If spill is continuing give estimated rate n/a	J Is further spill possible? <input type="checkbox"/> yes *no	K extent of contamination area in m² Approx. Size by day
L Factors affecting spill or recovery (weather conditions, terrain snow cover etc). None.		M Containment (natural depression, dyke etc) Flat ground. Approximately 20 litres contained and removed from plastic liner under nearby stationary fuel tank. Approximately 150 litres of heavily oil laden water pumped from excavation into 205 litre drum. Perforated steel drum installed in pit to act as catchment well. Pit to be backfilled around drum with clean crush fill. Containment well to be monitored and pumped periodically to test for fuel. Water to be stored in drums for treatment with charcoal filtration.	
N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials: The tank was chained and pulled into an upright position to stop fuel flow. Absorbent pad and mini-burns from spill kit were immediately placed on and around the spill site. Started excavating soil with backhoe less than 20min after spill. Contaminated crushed fill placed in 205 liter drums for transportation to existing soil remediation land farm site. Total of 47 drums removed from spill site. Hole excavated down to permafrost at 1.3m.			

09/19/2003 16:54 FAX 7804545688

09/15/2003 12:14 6048818370

FROM : BARN HOME FAX_988-2186

EBA ENGINEERING CONS
BOSTON

PHONE NO. : 780 988 2186

→ EBA YELLOWKNIFE 013
PAGE 03/03
AUG. 25 2003 07:48AM P3

Q Do you require assistance? <input checked="" type="checkbox"/> no <input type="checkbox"/> yes		P Possible hazards to person, property, or environment: e.g. fire, dripping water, fish or wildlife None	
Q Comments and/or recommendations The spill would not have happened if the tank had been properly secured. All persons handling fuel and other materials must be instructed in the proper method of securing a load before moving it. Review fuel handling procedures with camp maintenance personnel.		FOR SPILL LINE USE ONLY	
		Lead Agency	
		Spill Significance	
		Lead Agency start and stop time	
		Is this file now closed? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	
Reported by: P. Stapleton	Position, Employer, Location Maintenance Foreman, MHBL	Telephone No: 604-881-6790	
Reported to: R. Mercer	Position, Employer, Location Project Manager, MHBL	Telephone No: 604-881-6792	



FAX TRANSMISSION

Date: March 15, 2004

Pages: 2, including Cover

To: **Mr. John Clark, P. Eng.**
Senior Engineer
EBA Engineering Consultants Ltd.
Fax: 873-3324

From: **Lisette Self**
Research Assistant
Environmental Protection Service
Resources, Wildlife and Economic Development
Government of the Northwest Territories
600, 5102 – 50th Avenue
Yellowknife NT X1A 3S8

Telephone: (867) 873-7654
Fax: (867) 873-0221

Subject: **Spill Report 03-452**

Attached is a copy of the Spill Report that you requested today.

06/28/2003 08:47 6048018370

BOSTON

03:45Z

PAGE 01/01



N.W.T. SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

24-Hour Report Line
 24-Hr 065900 Do 065900 065900
 Phone/065900 (403) 920-8130
 Fax/065900 (403) 873-6924

A Report date and time June 28 2003		B Date and time of spill (if known) Late last night		C <input checked="" type="checkbox"/> Original report <input type="checkbox"/> Update no. _____ Do not delete		Spill number 03-452	
D Location and map coordinates (if known) and direction (if moving) Boston Camp 67° 39' 41" N 106° 23' 04" W West Nunavut							
E Party responsible for spill Unknown							
F Product(s) spilled and estimated quantities (provide metric volumes/weights if possible) Diesel Fuel 400 litres							
G Cause of spill Valve accidentally opened							
H Is spill terminated? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		I If spill is continuing, give estimated rate 10 litres per hour		J Is further spillage possible? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		K Extent of contaminated area (in square metres if possible) 65 m ²	
L Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.) None				M Containment (natural depression, dykes, etc.) Poly lined dyke with			
N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials All contaminated soil put into 45 gal. drums. Absorbent pads placed on visible fuel.							
O Do you require assistance? <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, describe:				P Possible hazards to persons, property, or environment; eg: fire, drinking water, fish or wildlife Possibility of fuel entering lake.			
Q Comments and/or recommendations The valve was accidentally kicked open in the generator shed. Contaminated soil shovelled into 45 gal. drums. Absorbent pads placed on							
FOR SPILL LINE USE ONLY							
Lead Agency INAC							
Spill significance Not Significant							
Lead Agency contact and time INAC - Robert Jenkins 06/28/03 0958							
Is this file now closed? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no							
Reported by George Taptuna		Position, Employer, Location Environmental Technician MHL		Telephone 604-881-6790		Reported to Jan @ Spill Line	
Position, Employer, Location Station Operator Spill Line		Telephone 867-920-8130					