

APPENDIX E.8.4 INITIAL AND FOLLOW-UP SPILL REPORTS (PART 2 OF 4)



May 9, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.mesher@aandc-aadnc.gc.ca Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-118, Reported on April 9, 2018 Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On April 9, 2018 at approximately 09:00 hrs, a housing maintainer conducting routine sewer line inspections observed a 90-degree elbow had separated from the AF South lift station discharge line under the Mine Site Complex (MSC). Upon investigation, it was determined the elbow glue had failed causing the joint to split. Approximately 1m3 of sewage was released and confined to the camp pad adjacent to the lift station, migrating to an extent underneath the MSC, impacting an approximate area of 20 m2. This spill is >100 m to the nearest water course (which is currently frozen). The investigation is ongoing and further details will be provided in the follow-up report. This spill is being reported as required by the conditions of NWB Water License no. 2AM-MRY1325, Part H, Item 9 (b) pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

Immediate and Follow-Up Action:

The lift station was immediately shut off to prevent further discharge and Supervision was contacted. The lift station was pumped down by vacuum truck and the elbow was repaired.

Recommendations:

Benjamin Widdewern

Consider strategic secondary containment at repeat failure locations and research different style of coupler aimed to address the expansion and contraction conditions. Continue daily lift station inspections of the system.

Current Status:

The elbow joint is repaired and the discharge line is back in operation. Daily inspections continue

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253-0596 x6016.

Bell Bonder

Prepared By: Reviewed by:

Ben Widdowson William Bowden

Environmental Coordinator Environmental Superintendent

Attach: Photos, Map, NT-NU Spill Report

cc. William Napier, Sylvain Proulx, Gerald Rogers, Francois Gaudreau, Tim Sewell, Connor Devereaux Megan Lord Hoyle(Baffinland), Stephen Bathory (QIA), Erik Allain, Ian Parsons (INAC)

Photo 1. Discharge line before elbow repair



Photo 2. Discharge line following elbow repair





Figure 1 - Map of spill location



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
Α	04-09-2018	- YEAR		11:2		E	X OF	RIGINAL SPILL REP	ORT,	REPORT NUMBER
В	04-09-2018	- DAY - YEAR		11:		CETIME		PDATE # THE ORIGINAL SPILL	REPORT	18 - 118
С	IOL - Commercial		3C301			TER LICENCE NUMBER				
D	GEOGRAPHIC PLACE NAME O			LOCATIO		REGION	- 71			
-	Mary River Mine S	site, Bamin	Island, NU		□ NWT X NUNAVUT □ ADJACENT JURISDICTION OR OCEAN LONGITUDE				N OR OCEAN	
Е	DEGREES 79	MINUTES 13	OLOOHOO .		DEGREES 56 MINUTES 13 SECONDS 70				SECONDS 70	
F	RESPONSIBLE PARTY OR VES Baffinland Iron M					ess or office locati d East, Suite 3		, Oakville, O	N L6H	10C3
G	ANY CONTRACTOR INVOLVED N/A)	N/A	ADDRE	SS OR	OFFICE LOCATION				
	PRODUCT SPILLED Raw Sewage		Approx			RAMS OR CUBIC METRE	ES	U.N. NUMBER		
H	SECOND PRODUCT SPILLED	(IF APPLICABLE)				RAMS OR CUBIC METRE	ES	U.N. NUMBER		
	N/A		N/A				_	N/A		
1	SPILL SOURCE Lift station		dischar	ge lin	e joi	int failure		Approx. 20		SQUARE METRES
J	FACTORS AFFECTING SPILL C Congested area, s		DESCRIBE AN	Y ASSIST	TANCE	REQUIRED		N/A	SONS, PRO	OPERTY OR EQUIPMENT
	ADDITIONAL INFORMATION, C		l l	TO CON	TAIN, F	ECOVER OR DISPOSE	OF SE	PILLED PRODUCT A	ND CONT	AMINATED MATERIALS
K	On April 9, 2018 a inspections obserunder the Mine Si causing the joint Supervision was currently under readjacent to the lift area of 20 m2. Thi investigation is or being reported as (b) pursuant to su	rved a 90 dete Complex to split. The contacted. epair. Appro- t station, m is spill is >' ngoing and required b absection 1	egree elbow had ((MSC). Upon in e lift station was The lift station v oximately 1m3 o igrating to an ex 100 m to the nea I further details o y the conditions	I sepa ivesti immovas po f sew ktent irest v will be s of N vut W	gati gati edia ump age und wate wate WB	ed from the AF on, it was dete ately shut off to bed down by ve was released erneath the Me er course (whice ovided in the f Water License	F So erm o pr acu and SC, ch i follo e no ut S	outh lift stat ined the elb revent furth- ium truck ar d confined t impacting is currently ow-up repor o. 2AM-MRY iurface Righ	ion disposed in the state of th	scharge line ue had failed charge and elbow is camp pad proximate n). The s spill is Part H, Item 9 bunal Act.
L	REPORTED TO SPILL LINE BY William Bowden		uperintendent	Baf		and		ation calling fro ary River	DM	TELEPHONE 416 364 8820
М	ANY ALTERNATE CONTACT Tim Sewell	POSITION Head o	f HSE	EMPLO Baf	OYER finla	and	ALTE	ERNATE CONTACT ATION		ext. 6016
			REPORT LI	NE USE	ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION		EMPLO			LOCA	ATION CALLED		REPORT LINE NUMBER
IN		STATION OP	ERATOR	Ц,			YELL	LOWKNIFE, NT		(867) 920-8130
<u> </u>	AGENCY DEC DCCG DG		A DINAC DINEB DTC			ANCE I MINOR I MA	_		FILE STAT	US OPEN CLOSED
AGE	NCY	CONTACT NAME		CC	ONTAC	TTIME	F	REMARKS		
LEAD) AGENCY									
FIRS	T SUPPORT AGENCY						\perp			
SECO	OND SUPPORT AGENCY						\perp			
THIR	D SUPPORT AGENCY									

PAGE 1 OF ___1__

Figure 2 - NT-NU Spill report



May 23, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.mesher@aandc-aadnc.gc.ca Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-131, Reported on April 23, 2018
Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On April 23, 2018 at approximately 05:30 hrs, it was noted that there was sewage seeping from under the snow at the Mine Site Complex (MSC) AE South wing. Upon investigation, it was determined the leak was coming from the discharge line of the lift station. Approximately 250 liters of raw sewage was released and confined to the camp pad adjacent to the lift station, impacting an approximate area of 10m².

Immediate and Follow-Up Action:

The lift station pumps were immediately shut off to prevent further release of raw sewage. The lift station was pumped down via vacuum truck and this practice continues until repairs can be made to the discharge line.

Recommendations:

Continued monitoring of lift station levels to ensure contents are emptied via vaccum truck and delivered to waste water treatment plant. Provide additional structural support under connection points on horizontal lines to reduce stress at the coupling as required once commissioned.

Current Status:

The repair of the gravity line is scheduled to be completed once materials are available and weather is favorable.

Should you require further information or clarification on the above noted spill, please contact William Bowden or Connor Devereaux at (647) 253-0596 x6016.

Prepared by:

C Paquette

Connor Paquette

Environmental Technician

Reviewed by:

Connor Devereaux

Environmental Superintendent

Attach: Photos, Map, NT-NU Spill Report

cc. William Napier, Grant Goddard, Sylvain Proulx, Gerald Rogers, Francois Gaudreau, Tim Sewell, Megan Lorde Hoyle, William Bowden, (Baffinland), Stephen Bathory (QIA), Ian Parsons, Jeremy Fraser (INAC)



Photo 1. Discharge line in need of repair for approx. 20 feet



Photo 2. Discharge pipe problematic location



Figure 1. Geographical Location of the release



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

EMA	L. 5	hills	ergu	V.HL.U
-	10		-	

	CT 8			506		25			REPORT LINE USE ONLY
Α	04-25-2010			20:3	0	OR	ORKGINAL SPILL REI	PORT,	REPORT NUMBER
В	01-20-2010			05:3	RENCE TIME	0.0	JPDATE # THE ORIGINAL SPIL	LL REPORT	<u>18 - 131</u>
С		_ease: Q13C301			2AM-MRY132				No.
D	GEOGRAPHIC PLACE NAME OR I			LOCATION	□ NWT X NUN	INAVUT	□ ADJACENT JUI	RISDICTION	OR OCEAN
Е	DEGHEES 1 1 MI	AINUTES 18	SECONDS 5		LONGITUDE DEGREES 79		MINUTES 16	j s	ECONDS 57
F	RESPONSIBLE PARTY OR VESSE Baffinland Iron Mine		CONTRACTOR STATE		DDRESS OR OFFICE LO Road East, Suit		. Oakville, (ON L6H	0C3
G	ANY CONTRACTOR INVOLVED		Control of the Contro		S OR OFFICE LOCATION			China victor	
Н	PRODUCT SPILLED Raw Sewage		Approx		ILOGRAMS OR CUBIC M	METRES	U.N. NUMBER N/A		Α.
Н	N/A	APPLICABLE)	OUANTITY IN L	LITRES, KII	LOGRAMS OR CUBIC M	METRES	U.N. NUMBER N/A		
I	SPILL SOURCE Lift Station		Pipe Fai	ilure			10m2		SQUARE METRES
J	FACTORS AFFECTING SPILL OR I Congested area, sn	now and ice	N/A		ANCE REQUIRED		N/A		PERTY OR EQUIPMENT
K	approximate area o frozen). The investi spill is being report Item 9 (b) pursuant Act.	ow at the Mine S k was coming for the prevent furthis practice with the prevent fund the practice with the prevent fund the prevent fund the prevent fund the prevent fund fund fund fund fund fund fund fund	Site Comple from the dis inther release ill continue ed to the can pill is >100 bing and fur I by the cor	ex (MS schargese of recording amp part of the modition e Nuna	SC) AE South vige line of the line of the line was ewage. The repairs are cond adjacent to the nearest was letails will be plus of NWB Waters and waters wate	wing. ift stat he lift mplet the lif ater co provid ter Lic nd Nu	Upon investion. The lift station was ed. Approxift station, in purse (which led in the focense no. 2/2 navut Surfa	tigation t station s pump- imately npacting h is cum- llow-up AM-MR\ ace Righ	n, it was n pumps were ed down via 250 liters of g an rently o report. This Y1325, Part H, hts Tribunal
L	REPORTED TO SPILL LINE BY Connor Devereaux	POSITION Env. Superin	ntendent	Baffi	YER inland	14 1/1	CATION CALLING FF	0000000	116 364 8820
	ANY ALTERNATE CONTACT	POSITION Head of HSE	12.14	EMPLOY	500 (00 00 00 00)	ALT	ERNATE CONTACT		ALTERNATE TELEPHONE ext. 6016
			REPORT LI	2		1.0	DALLON		
_	RECEIVED AT SPILL LINE BY	POSITION	BL OH L	EMPLOY	1000	LOX	CATION CALLED	I	REPORT LINE NUMBER
N	TEGETYES AT ST. LEE ENT.	STATION OPERATOR		10 00		537	LLOWKNIFE, NT	13	(867) 920-8130
LEA	AD AGENCY DEC DCCG DGNV	WT DGN DILA DINV	AC DINEB DTC	SIGI	NIFICANCE I MINOR I	□ MAJOR	UNKNOWN	FILE STATE	US - OPEN - CLOSED
AGE	ENCY CO	ONTACT NAME		CON	NTACT TIME		REMARKS		
LEA	AD AGENCY					50			
FIRS	ST SUPPORT AGENCY					3			2
SEC	COND SUPPORT AGENCY			3		- 50			
THIE	RD SUPPORT AGENCY					- 3			

PAGE 1 OF 1

Figure 2 - NT-NU Spill report



May 24, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.mesher@aandc-aadnc.gc.ca Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-140, Reported on April 24, 2018 Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On April 24, 2018 at approximately 22:00 hrs, while conducting inspections of the MSC lift stations, a housing maintainer observed frozen water outside the AD wing south lift station. Upon investigation, it was determined that the gravity drain line from the wing had separated at the coupling, resulting in raw sewage discharging to the ground. Immediately upon discovering the release the sources to the affected wing were shut off while the coupling was repaired. Approximately 250 L of sewage was released to the adjacent camp pad ground surface, impacting an approximate area of 20 m². The coupling and gravity line was subsequently reconnected and the system was brought back into operation. The contaminated snow was collected and properly disposed of in the polishing waste stabilization pond. This spill is >100 m to the nearest water course (which is currently frozen).

Immediate and Follow-Up Action:

The lift station was immediately emptied by vacuum truck to prevent further overflow. The contaminated snow was collected and deposited in an engineered lined containment facility to the extent possible.

Recommendations:

Procure horizontal flow fittings for install on gravity line. Continue inspections of lift stations to ensure components are functioning as designed.

Current Status:

The lift station is currently back in operation and inspected twice-daily.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647)253-0596 x6016

Prepared By:

Reviewed by:

Bryan Lukeman

Environmental Coordinator

Connor Devereaux

Environmental Superintendent

Attach: Map, Photos, and Initial NT-NU Spill Report

cc. Grant Goddard, William Napier, Sylvain Proulx, Gerald Rogers, Francois Gaudreau, Tim Sewell, William Bowden (Baffinland) Stephen Bathory (QIA) Ian Parsons, Jeremy Fraser (INAC)



Photo 1: Gravity drain line following repair of the separated coupling.

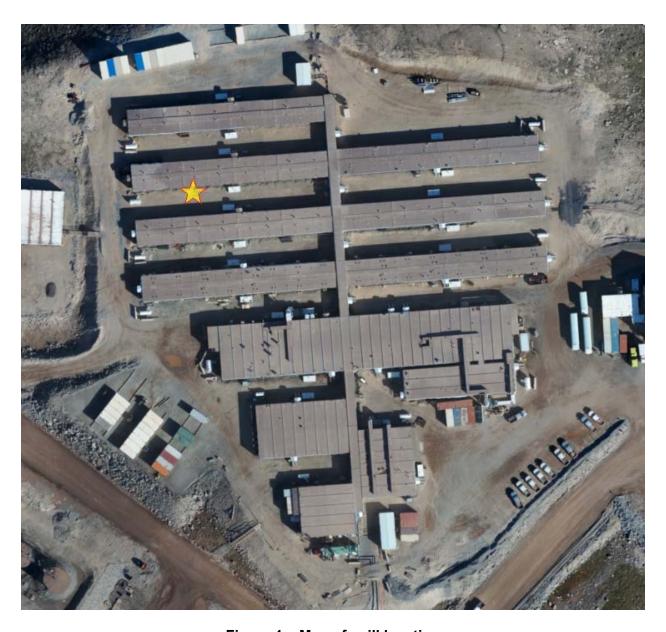


Figure 1 – Map of spill location



IL CAROLINE CHEMICALS AND OTHER HAZADROLIS 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
Α	04-24-2018	-YEAR		750	ORT TI	ME		ORIGINAL SPILL REP	ORT.	REPORT NUMBER
	OCCURRENCE DATE: MONTH	- DAY - YEA	R	1-1-1	0.70	NCE TIME	OR	JPDATE #		18 - 140
В	04-23-2018			22	:00		TO	THE ORIGINAL SPILL	REPORT	10 - 140
С	LAND USE PERMIT NUMBER (19	ATER LICENCE NUMBE	F1-456	000 A 700		
_	IOL - Commercial		AND DIRECTION FROM NAMED	LOCAT	. 155	2AM-MRY1325 REGION	ıy	pe "A"		
D	Mary River Mine S			LOCAI		□NWT X NUNAV	/UT	☐ ADJACENT JUR	ISDICTION	OR OCEAN
Е	DEGREES 71	MINUTES	0000000	53	D	ONGITUDE EGREES 79	*******	MINUTES 17	8	ECONDS 10
F	RESPONSIBLE PARTY OR VES Baffinland Iron M	ines Co	rp. 2275 M	iddle	Roa	RESS OR OFFICE LOCA ad East, Suite		, Oakville, O	N L6H	0C3
G	ANY CONTRACTOR INVOLVED N/A)	N/A	RADDR	ESS O	R OFFICE LOCATION				
	PRODUCT SPILLED					GRAMS OR CUBIC METE	RES	U.N. NUMBER		
Н	Raw Sewage SECOND PRODUCT SPILLED	/IE ADDI ICAE	Approx			GRAMS OR CUBIC METE	DEC	N/A U.N. NUMBER		
	N/A	(IF AFFLICAE	N/A	LITTES	, KILO	STAMES OF COBIC MET	nes	N/A		
1	SPILL SOURCE		SPILL CAUSE		38 05	11.595		AREA OF CONTAMI	INATION IN	SQUARE METRES
Ţ	Lift Station		Influent					20m2		
J	FACTORS AFFECTING SPILL C Congested area, s			NY ASSI	STANC	E REQUIRED		N/A	SONS, PRO	PERTY OR EQUIPMENT
K	had separated at coupling was rep- surface, impactin reconnected and of in the polishing currently frozen). report. This spill	a coupli aired. A g an ap the syst g waste The inv is being art H, ite	itial investigation, ing. Sources to the pproximately 250L proximate area of 2 tem is back in oper stabilization pond. estigation is ongoing reported as requirem 9 (b) pursuant thact.	affeo of se 0m2 ation This ng ar	cted waq . The n. The spi nd for	wing were image was released coupling and econtaminated is >100 m to urther details of conditions of the wing with the the wing wing with the wing with the wing with the wing with the wing wing with the wing wing with the wing wing with the wing wing wing wing with the wing wing wing wing wing wing wing wing	med to d gred s the will of N	diately shut of the adjaced avity line was now will be a nearest was be provided WB Water Li	off wh nt cam is sub prope ter cou in the cense	ile the p pad ground sequently rly disposed urse (which is follow-up no.
1	REPORTED TO SPILL LINE BY Connor Devereau	24 (25) 25 (25)	on . Superintendent	-	LOYER	land	17.0	CATION CALLING FRO	MC	TELEPHONE 416 364 8820
_	ANY ALTERNATE CONTACT	POSITI			LOYER			ERNATE CONTACT		ALTERNATE TELEPHONE
M	Tim Sewell	Hea	d of HSE	Ва	ffin	and	LO	CATION		ext. 6016
			REPORT L	_						
N	RECEIVED AT SPILL LINE BY	POSITI		EMP	LOYER	1		CATION CALLED		REPORT LINE NUMBER
LEAG	ACCINOVER DEC. DOCC. DO		N OPERATOR		NONIE	ICANICE E HINOD E H		LOWKNIFE, NT		(867) 920-8130
			ILA INAC NEB ITO	-		CTTIME	AJUF	REMARKS	FILE STAT	US OPEN CLOSED
AGE		CONTACT NA	WIE		JONTA	CTTIME		HEMAHAS		
LEAL	AGENCY			_						
FIRS	T SUPPORT AGENCY									
SEC	OND SUPPORT AGENCY									
THIR	D SUPPORT AGENCY									

PAGE 1 OF ___1

Figure 2 – NT-NU Spill report



May 26, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.mesher@aandc-aadnc.gc.ca Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-141, Reported on April 27, 2018
Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On April 26, 2018 at approximately 09:00 hrs during a routine inspection, housing maintenance found a leak at the Weather Haven Complex at the Mine Site. Upon initial investigation, it was determined that the discharge line sourcing from the dry lift station had separated at a coupling. The coupling was immediately repaired and bump tested to ensure a tight seal. Approximately 300L of sewage was released to the adjacent camp pad ground surface, impacting an approximate area of 15m². The location of the spill was confined to the Weatherhaven Camp pad and is greater than 100 metres from the closest water body which is currently frozen.

Immediate and Follow-Up Action:

The coupling was repaired and the discharge line subsequently reconnected. The coupling was bump tested before the system was put back into service. Contaminated snow and ice was removed and disposed of at the Polishing Waste Stabilization Pond.

Recommendations:

Procure fit for use horizontal flow fittings for install on discharge line. Continued daily lift station inspections of the system, and continued snow/ ice removal during these inspections to prevent build-up and pressure on the couplings.

Current Status:

The lift station is currently back in operation and inspected regularly.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253-0596 x6016.

Prepared By: Reviewed by:

Bryan Lukeman Connor Devereaux

Environmental Coordinator Environmental Superintendent

Attach: Photos, Map, NT-NU Spill Report

cc. Grant Goddard, William Napier, Sylvain Proulx, Gerald Rogers, Francois Gaudreau, Tim Sewell, William Bowden, Megan Lord Hoyle (Baffinland), Stephen Bathory (QIA), Ian Parsons, Jeremy Fraser (INAC)



Photo 1. Spill location before repairs are made



Photo 2. Lift station discharge line after repairs were completed.



Figure 1 - Map of spill location



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 - YE 04-27-2018			15:00		XO OR	RIGINAL SPILL REPO	ORT.	REPORT NUMBER
В	OCCURRENCE DATE: MONTH - DA			09:00	ENCE TIME	TO	UPDATE # O THE ORIGINAL SPILL REPORT		18 141
С	IOL - Commercial Le	ease: Q13C301			WATER LICENCE NUI 2AM-MRY13		0.00		
D	GEOGRAPHIC PLACE NAME OR D Mary River Mine Site				TOTAL CONTROL TOTAL CONTROL	INAVUT	☐ ADJACENT JURIS	SDICTION	OR OCEAN
Ε		NUTES 19	SECONDS 33	3	LONGITUDE DEGREES 79		MINUTES 22	SE	CONDS 32
F	RESPONSIBLE PARTY OR VESSEL Baffinland Iron Mine		2275 Mid	ldle Ro		te 300	, Oakville, Ol	N L6H	0C3
G	ANY CONTRACTOR INVOLVED N/A		N/A		OR OFFICE LOCATIO				
	PRODUCT SPILLED Raw Sewage		Approx.		OGRAMS OR CUBIC N	METRES	U.N. NUMBER N/A		
Н	Raw Sewage SECOND PRODUCT SPILLED (IF APPLICABLE) N/A				OGRAMS OR CUBIC I	METRES	U.N. NUMBER N/A		
I	SPILL SOURCE Weatherhaven dry li		SPILL CAUSE Failure o	f disch	arge line		AREA OF CONTAMIN	NI NOITAN	SQUARE METRES
J	FACTORS AFFECTING SPILL OR F		N/A	' ASSISTAN	CE REQUIRED		N/A	ONS, PROF	PERTY OR EQUIPMENT
		abbloximately	U9:UU nrs.	during	a routine in	specti	on, housing	mainte	enance
K	found a leak at the \ determined that the coupling was imme- sewage was release	Weather Haven discharge line discharge line discharge to the adjace and discharge tion of the spille closest water be provided in twater License	Complex a sourcing f d and bump ent camp pa line was s was confir body which he follow-u no. 2AM-M	at the Market the Mark	nine Site. Up e dry lift stat d to ensure a und surface, uently recon the Weatherl rrently froze ort. This spil 5, Part H, ite	oon inition had tight impacted haven n. The lis beim 9 (b	nd separated seal. Approxiting an approduced and the sys Camp pad an investigation ing reported	ation, in at a continuated roxima stem is and is gon is or as req	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the
K	found a leak at the latermined that the coupling was immessewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB	Weather Haven discharge line discharge line discharge to the adjace and discharge tion of the spille closest water be provided in twater License	Complex a sourcing f d and bump ent camp pa e line was s was confir body which he follow-u no. 2AM-M at Surface l	at the Market the Mark	fine Site. Up e dry lift stat d to ensure a und surface, uently recon the Weatherl rrently froze ort. This spill 5, Part H, itel Tribunal Act	tion inition had tight impacted haven n. The I is being 9 (b	tial investiga d separated seal. Approx cting an appr d and the sys Camp pad a investigatio ing reported	ation, in at a co kimatel roxima stem is nd is g n is or as req o subs	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the
	found a leak at the Netermined that the coupling was immessewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water REPORTED TO SPILL LINE BY	Weather Haven discharge line diately repaired d to the adjace and discharge tion of the spill colosest water be provided in t Water License ers and Nunave	Complex a sourcing f d and bump ent camp pa e line was s was confir body which he follow-u no. 2AM-M at Surface l	at the Mirom the tested and groups and groups and to the tested and te	fine Site. Up e dry lift stat d to ensure a und surface, uently recon the Weatherl rrently froze ort. This spil 5, Part H, itel Tribunal Act	oon inition has tight impact nected haven n. The I is being 9 (b	tial investigated seal. Approxiting an approxiting an approxiting and the sys Camp pad an investigation ing reported pursuant to	ation, in at a coximatel coxima stem is gon is or as requous subs	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3)
L	found a leak at the Netermined that the coupling was immessewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water William Bowden ANY ALTERNATE CONTACT	Weather Haven discharge line diately repaired d to the adjace and discharge tion of the spill closest water be provided in t Water License ers and Nunavo POSITION POSITION POSITION POSITION	Complex a sourcing f d and bump ent camp pa e line was s was confir body which he follow-u no. 2AM-M at Surface l	at the Mirom the tested ad grown the sequence of the sequence	fine Site. Up e dry lift stat d to ensure a und surface, uently recon the Weatherl rrently froze ort. This spil 5, Part H, iter Tribunal Act aland	oon inition has tight impact nected haven n. The I is being 9 (b	tial investigated seal. Approximating an approximating an approximation calling from the system of t	ation, in at a coximatel coxima stem is gon is or as requous subs	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3) ELEPHONE 416 364 8820 LTERNATE TELEPHONE
L	found a leak at the Netermined that the coupling was immessewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water William Bowden ANY ALTERNATE CONTACT	Weather Haven discharge line diately repaired d to the adjace and discharge tion of the spill closest water be provided in t Water License ers and Nunavo POSITION POSITION POSITION POSITION	Complex a sourcing f d and bump ent camp pa e line was s was confir body which he follow-u no. 2AM-M at Surface I	at the Mirom the tested ad grown the sequence of the sequence	fine Site. Up e dry lift stat d to ensure a und surface, uently recon the Weatherl rrently froze ort. This spil 5, Part H, iter Tribunal Act aland B aland	LOCO	tial investigated seal. Approximating an approximating an approximation calling from the system of t	ation, in at a coximately coxima stem is grand is grand or subs	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3) ELEPHONE 416 364 8820 LTERNATE TELEPHONE
L M N	found a leak at the Netermined that the coupling was immessewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water William Bowden ANY ALTERNATE CONTACT Tim Sewell	Weather Haven discharge line diately repaired and discharge tion of the spill closest water be provided in t Water License ers and Nunavo POSITION ENV. Superin POSITION Head of HSE	Complex a sourcing for and bumpent camp particles was confirmed body which he follow-uno. 2AM-Mut Surface for tendent	at the Mirom the tested ad grow ubsequence to his cuup report RY132 Rights EMPLOYE Baffir EMPLOYE Baffir EMPLOYE Baffir E USE ON	fine Site. Up e dry lift stat d to ensure a und surface, uently recon the Weatherl rrently froze ort. This spil 5, Part H, iter Tribunal Act aland B aland	bon inition has tight impacted haven n. The lis being 9 (b	tial investigated seal. Approximation and the system of th	ation, in at a coximately coximal stem is grand is grand is or as requested as well as a second in a s	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3) ELEPHONE 416 364 8820 LITERNATE TELEPHONE ext. 6016
L M N	found a leak at the Note determined that the coupling was immersewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water William Bowden ANY ALTERNATE CONTACT TIM Sewell RECEIVED AT SPILL LINE BY	Weather Haven discharge line diately repaired and discharge tion of the spill closest water be provided in t Water License ers and Nunavo POSITION ENV. Superin POSITION Head of HSE	Complex a sourcing for and bumpent camp particles was confirmed body which he follow-uno. 2AM-Mut Surface for tendent	at the March to tested ad groups and to the sequence of the se	Mine Site. Upe dry lift stated to ensure a und surface, uently reconthe Weatherl rrently froze of the Weatherl fribunal Actor of the Meatherl fribunal Acto	LOC MAJOR	tial investigated seal. Approximation and the system of th	ation, in at a coximately coximal stem is grand is grand is or as requested as well as a second in a s	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3) ELEPHONE 416 364 8820 LTERNATE TELEPHONE ext. 6016 EPORT LINE NUMBER 367) 920-8130
L M N LEAL	found a leak at the Note determined that the coupling was immersewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water William Bowden ANY ALTERNATE CONTACT TIM Sewell RECEIVED AT SPILL LINE BY	Weather Haven discharge line diately repaired do to the adjace and discharge tion of the spill closest water be provided in t Water License ers and Nunavo POSITION ENV. Superin POSITION Head of HSE POSITION STATION OPERATOR	Complex a sourcing for and bumpent camp particles was confirmed body which he follow-uno. 2AM-Mut Surface for tendent	at the March to tested ad groups and to the sequence of the se	fine Site. Upe dry lift stated to ensure a und surface, uently reconthe Weatherly froze of the Weatherly froze of	LOC MAJOR	tial investigated seal. Approximated seal. Approximated and the system of the system o	ation, in at a coximately coximal stem is grand is grand is or as requested as well as a second in a s	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3) ELEPHONE 416 364 8820 LTERNATE TELEPHONE ext. 6016 EPORT LINE NUMBER 367) 920-8130
L N LEAF	found a leak at the Motermined that the Coupling was immersely sewage was released 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water William Bowden ANY ALTERNATE CONTACT TIM Sewell RECEIVED AT SPILL LINE BY DIAGENCY DIAGENCY ST SUPPORT AGENCY	Weather Haven discharge line diately repaired do to the adjace and discharge tion of the spill closest water be provided in t Water License ers and Nunavo POSITION ENV. Superin POSITION Head of HSE POSITION STATION OPERATOR	Complex a sourcing for and bumpent camp particles was confirmed body which he follow-uno. 2AM-Mut Surface for tendent	at the March to tested ad groups and to the sequence of the se	fine Site. Upe dry lift stated to ensure a und surface, uently reconthe Weatherly froze of the Weatherly froze of	LOC MAJOR	tial investigated seal. Approximated seal. Approximated and the system of the system o	ation, in at a coximately coximal stem is grand is grand is or as requested as well as a second in a s	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3) ELEPHONE 416 364 8820 LTERNATE TELEPHONE ext. 6016 EPORT LINE NUMBER 367) 920-8130
L N LEAF	found a leak at the Motermined that the Coupling was immersewage was release 15m2. The coupling operation. The local 100 metres from the further details will be conditions of NWB of the Nunavut Water William Bowden ANY ALTERNATE CONTACT TIM Sewell RECEIVED AT SPILL LINE BY DIAGENCY CONTACT CONT	Weather Haven discharge line diately repaired do to the adjace and discharge tion of the spill closest water be provided in t Water License ers and Nunavo POSITION ENV. Superin POSITION Head of HSE POSITION STATION OPERATOR	Complex a sourcing for and bumpent camp particles was confirmed body which he follow-uno. 2AM-Mut Surface for tendent	at the March to tested ad groups and to the sequence of the se	fine Site. Upe dry lift stated to ensure a und surface, uently reconthe Weatherly froze of the Weatherly froze of	LOC MAJOR	tial investigated seal. Approximated seal. Approximated and the system of the system o	ation, in at a coximately coximal stem is grand is grand is or as requested as well as a second in a s	t was oupling. The ly 300L of te area of s back in greater than ngoing and juired by the section 12(3) ELEPHONE 416 364 8820 LTERNATE TELEPHONE ext. 6016 EPORT LINE NUMBER 367) 920-8130

PAGE 1 OF __1

Figure 2 – NT-NU Spill report



May 29, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.mesher@aandc-aadnc.gc.ca Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-145, Reported on April 29, 2018
Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

At 19:00 HRS on April 29th, security informed Site Services supervisor of a leak at the AD wing fuel tank. Upon arrival, the supervisor discovered a flow of fuel coming from the venting cap at the top of the tank. Upon initial investigation, it was discovered that the float for the fuel tank had failed due to a compromised electrical wire and approximately 0.5m3 of diesel fuel was released onto the camp pad, impacting an area approximately 23m2. An investigation determined that due to a compromised wire that provided power for the float switch, the float failed causing the day tank pumps to continually be operating. As the supply of fuel exceeded the demand, the day tank filled and excess fuel returned to the main tank through a two inch return line. An audible quarter inch orifice whistle fitting, which was installed on the two-inch line (red fitting under the main vent camp), did not allow the fuel to return at the same rate and the fuel overflowed through the vent on the main tank.

Immediate and Follow-Up Action:

The supervisor shut off the valves immediately, which stopped the release and initiated spill response. Snow berms were constructed and absorbent pads confined the spill to an area directly beside the fuel tank. The emergency response truck was deployed to collect the remaining fuel into a tote. The contaminated material was subsequently scraped up and placed in quatrex bags.

Recommendations:

A retrofit of the remaining fuel tank systems across site to isolate the audible orifice whistle fitting and vent piping to another manifold on the tank and pipe the return line directly into the tank to ensure a closed loop even if float switches failed again.

Current Status:

AD wing fuel tank has been retrofitted with new design to enable continued circulation of fuel. The whistle was moved to a new location, along with the vent cap, to ensure continual recirculation between the tank and the pump if float failure were to occur. Parts are being procured for the retrofit of all fuel day tanks at the Mine Site and Port Site complexes.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253-0596 x6016.

Prepared by: Reviewed by:

Ben Widdowson

Environmental Coordinator

Benjamin Widdewern

Connor Devereaux

Environmental Superintendent

Your Dung

Attach: Photos, Map, NT-NU Spill Report

cc. Grant Goddard, Sylvain Proulx, Gerald Rogers, Francois Gaudreau, Tim Sewell, William Bowden (Baffinland), Stephen Bathory (QIA), Ian Parsons, Jeremy Fraser (INAC)



Photo 1. Spill location before clean-up



Photo 2. Spill location after cleanup



Photo 3. Vent pipe and whistle before retrofit



Photo 4. Retrofit implemented on main tank



Photo 5. Return line without audible whistle fitting on main tank



Figure 1 – Map of spill location



NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

PAGE 1 OF ___1

								REPORT LINE USE ONLY
Α	REPORT DATE: MONTH - DAY 04-30-2018	-YEAR		19:00	IME	▼ORIGINAL SPILL REI	PORT,	REPORT NUMBER
,,	OCCURRENCE DATE: MONTH	- DAY - YEAR		OCCURRE	NCE TIME	OR UPDATE #		18 - 145
В	04-29-2018			Unkno	own	TO THE ORIGINAL SPIL	L REPORT	16 - 145
С	IOL - Commercial				WATER LICENCE NUMBER 2AM-MRY1325			
	GEOGRAPHIC PLACE NAME (The state of the s	N FROM NAMED L		REGION	Type A		
D	Mary River Mine	Site, Baffin Island	, NU		□NWT X NUNAY	JT DADJACENT JU	RISDICTION	OR OCEAN
Ε	DEGREES 71	MINUTES 18	SECONDS 55	5 [ONGITUDE DEGREES 79	MINUTES 17	S	ECONDS 04
F	RESPONSIBLE PARTY OR VES Baffinland Iron M	ines Corp.	2275 Mid	dle Ro	ness on office Locat ad East, Suite 3		ON L6H	0C3
G	N/A)	N/A	ADDRESS (OR OFFICE LOCATION			
	PRODUCT SPILLED Diesel Fuel				GRAMS OR CUBIC METR	ES U.N.NUMBER N/A		
Н	SECOND PRODUCT SPILLED	TE APPLICABLE)	Approx.		GRAMS OR CUBIC METR	1,445		
	N/A	(FAIT EIGHDEE)	N/A	THEO, NEO	or this of too bio lac in	N/A		
ı	SPILL SOURCE AD Wing Fuel Tra	nefer Tank	SPILL CAUSE Float Fail	luro		AREA OF CONTAIN	INATION IN	SQUARE METRES
÷	FACTORS AFFECTING SPILL		DESCRIBE ANY		CE REQUIRED		ISONS, PRO	PERTY OR EQUIPMENT
J	N/A		N/A			N/A		
K	and approximatel approximately 23 fuel tank. The fue spill is >100 mete ongoing and furth reported as requi	ervisor shut off the pon initial investion of diesel of 0.5m3 of diesel m2. Snow berms was collected in the from the neare her details of the investigation	ne valves in gation, it wa fuel was re and spill so to a tote ar est water co incident will ions of wat	mmedias disceleased orbents nd confourse (v ll be pr er licer	ately, which sto covered that the donto the camp s confined the staminated mate which is curren covided in the fo ase no. 2AM-MF	pped the release float for the for pad, impacting pill to an area rial placed in catly frozen). The blow-up reporty 1325, Part H	use, and uel tan ig an a directl quatrex ie inves t. This	d initiated k had failed rea y beside the bags. This stigation is spill is being 9 (b)
ı	REPORTED TO SPILL LINE BY William Bowden	POSITION Env. Superint	tendent	Baffin		647-253-0596		TELEPHONE 416 364 8820
-	ANY ALTERNATE CONTACT	POSITION	teriuerit	EMPLOYE		ALTERNATE CONTACT		ALTERNATE TELEPHONE
M	Tim Sewell	Head of HSE		Baffin	land	LOCATION		ext. 6016
			REPORT LIN					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR		EMPLOYE	R.	YELLOWKNIFE. NT		REPORT LINE NUMBER (867) 920-8130
LEAI	DAGENCY DEC DCCG DC		□ NEB □TC	SIGNIE	FICANCE MINOR M/			US OPEN CLOSED
AGE		CONTACT NAME			ACT TIME	REMARKS		
LEA	DAGENCY							
FIRS	ST SUPPORT AGENCY							
SEC	OND SUPPORT AGENCY							
THIE	D SUPPORT AGENCY							

Figure 2 - NT-NU Spill report



May 30, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.Mesher@aandc-aadnc.gc.ca Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-148

Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On April 30 at 11:00 Hrs, a vac truck operator discovered water around the outside of the wasting door at the new Waste Water Treatment Plant (WWTP). Upon investigation, it was discovered that the wasting pump had overfilled the tank, overflowing through the door onto the surrounding camp pad. Approximately 1.3 m³ of raw sewage was released and confined to the adjacent pad. Due to a communication breakdown, one WWTP operator had manually over ridden the system and failed to communicate the change to his colleague operator. This caused the wasting pumps to operate permanently, not on a timed cycle, resulting in the overflow.

Immediate and Follow-Up Action:

The power to the plant was shut off and the WWTP operators were called. A vacuum truck was utilised to recover and remove the raw sewage in the plant. The contaminated snow around the plant was excavated and placed in the PWSP for storage and potential future treatment during the open water season.

Recommendations:

All operators at sewage plants need to be in communication throughout the day with systematic checks. It is not common practice to have two operators in the WWTP; any changes in the system must be verified by both operators through a Standard Operating Procedure (SOP). All contractors operating both the WWTP and WTP must follow and implement.

Current Status:

Benjamin Widdewern

A Standard Operating Procedure for the WWTP and WTP is in progress. This procedure includes a walk down prior to any shutdown, additional training of any new operator that comes on site, and cross signage of operators if more than one operator is on shift.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253- 0596 x6016.

Bell Barder

Prepared by: Reviewed by:

Ben Widdowson William Bowden

Environmental Coordinator Environmental Superintendent

Attach: Photos, Map, Baffinland NT-NU Spill Report

cc. Grant Goddard, Sylvain Proulx, Tim Sewell, Connor Devereaux, Gerald Rogers, Francois Gaudreau (Baffinland), Stephen Bathory (QIA), Ian Parsons, Jeremy Fraser (INAC).



Photo 1. Overflow spill on ground surrounding the WWTP



Photo 2. Surrounding the WWTP pad after site clean up.



Figure 1. Map of spill location





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

Α	05-01-2018	/-YEAR		18:00			ORIGINAL SPILL RE	PORT,	REPORT NUMBER
	OCCURRENCE DATE: MONTH	I – DAY – YEAR			ENCE TIME	O O	UPDATE #		18 - 148
В	04-30-2018			10:45			THE ORIGINAL SPIL	L REPORT	
C	IOL - Commercia				WATER LICENC				
_	GEOGRAPHIC PLACE NAME		-	CONTION	2AM-MR REGION	Y1325 I	/pe "A"		
D	Mary River Milne			OCATION	□NWT	X NUNAYUT	□ ADJACENT JU	RISDICTION	OR OCEAN
Е	DEGREES 71	MINUTES 18	SECONDS 88	5	DEGREES 7		MINUTES 17	s	ECONDS 98
F	RESPONSIBLE PARTY OR VE Baffinland Iron M	lines Corp.		idle Ro	oad East,	Sutie 30	ı 0, Oakville, 0	ON L6H	0C3
G	ANY CONTRACTOR INVOLVED Horizon.Newterra		CONTRACTOR:	ADDRESS	OR OFFICE LO	CATION			
<u></u>	PRODUCT SPILLED		QUANTITY IN L	ITRES KILO	OGRAMS OR C	IBICMETRES	U.N. NUMBER		
١.,	Sewage		Approxi			JOIG ME TIEG	N/A		
Н	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		N/A	ITRES, KILO	OGRAMS OR C	JBIC METRES	U.N. NUMBER		
1	SPILL SOURCE Wastewater treat	ment plant	Wasting	Tank (Overflow		AREA OF CONTAIN 25m2	AI MOITAMIN	I SQUARE METRES
J	FACTORS AFFECTING SPILL Frozen, cold con		DESCRIBE ANY	ASSISTAN	ICE REQUIRED		N/A	ISONS, PRO	OPERTY OR EQUIPMENT
K	plant (WWTP) at a operator notified initial investigation engage resulting and confined to the was disposed of water course, who details of the clear by the conditions 12(3) of the Nuna REPORTED TO SPILL LINE BY	Supervision and on, it was determ in an overflow o he WWTP pad, in a lined engine ich is currently fanup will be provision NWB Water Livut Waters and N	I the WTTP of hined that are if the wasting mpacting and ered contain rozen. An in rided in the License no.	operator autoring tank area on mentor avestig follow-race R	or. The pornatic shu . Approx of approx facility. I pation is u up repor IRY1325, tights Tril	umps we toff for th imately 1 imately 2 The spill inderway t. This sp Part H, in bunal Ac	re immediate waste tan 1.3m3 of sew 25m2. Contai location is > 7 to determine them 9 (b) pure t.	ely shu k pump age wa minated 100m to be the co reported suant to	at off. Upon p failed to as released d material to the nearest cause and d as required to subsection
L	William Bowden	Env. Superin	ntendent	Baffir	nland	IN IN	lary River		416 364 8820
М	ANY ALTERNATE CONTACT Tim Sewell	POSITION Head of HSE	:	EMPLOYE Baffir			TERNATE CONTACT		ALTERNATE TELEPHONE 6016
-	Till Oction	Ticad of Flor	REPORT LIN			LC	CATION		
	RECEIVED AT SPILL LINE BY	POSITION	neroni Lin	EMPLOYE		1.0	CATION CALLED		REPORT LINE NUMBER
N	TESETTED AT OF ILL LINE BY	STATION OPERATOR					LLOWKNIFE, NT		(867) 920-8130
LEA	AGENCY DEC DCCG	GNWT DGN DILA DINA	AC □NEB □TC	SIGNI	FICANCE MI	NOR - MAJO	R UNKNOWN	FILE STAT	US DOPEN DOLOSED
AGE	NCY	CONTACT NAME		CONT	ACTTIME		REMARKS		
LEA	DAGENCY								
FIRS	T SUPPORT AGENCY								
SEC	OND SUPPORT AGENCY								
THIE	D SUPPORT AGENCY								
									PAGE 1 OF

Figure 2. Baffinland NT NU spill report



June 3, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.Mesher@aandc-aadnc.gc.ca

Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-153
Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On May 4th, 2018, 20:00 Hrs, an Environment Department employee observed discoloured water near Lift Station 5 at AE Wing North. It was determined to be sewage upon inspection. Housing Maintenance and Surface Works Supervision was notified immediately. The source of the spill was an overflow of lift station 5. The lift station was being discharged through a regular vacuum truck schedule however due to an error in the implementation of this schedule the overflow occurred. Communications and associated vacuum truck scheduling procedures are being revised to prevent an overflow reoccurrence. Approximately 250 Litres impacted the adjacent MSC pad to the lift station migrating over an area of approx. 15m2. The spill is >100 m from the nearest water body which is currently frozen.

Immediate and Follow-Up Action:

The Environment Department contacted Fixed Plant Housing Maintainers and the lift station was emptied with the Vacuum truck. Contaminated material was removed and disposed of. Implementation of a regular prescribed lift station vacuum truck schedule continues.

Recommendations:

To mitigate re-occurrence due to similar circumstances additional check and balances have been implemented to the vacuum truck scheduling protocols. Additional supervision for contractor and BIM vacuum truck operators and the prescribed schedule was implemented to support business needs.

Current Status:

The lift station is currently operational. Robust discharge vacuum truck scheduling protocols with revised checks and balances have been implemented to prevent a reoccurrence. Regular daily inspections of lift stations are ongoing.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253- 0596 x6016.

Prepared by: Reviewed by:

Benjamin Widdewern Bill Barder

Ben Widdowson William Bowden and Gordon Mudryk
Environmental Coordinator Environmental Superintendent and Site Services Manager

Attach: Photos, Map, Baffinland NT-NU Spill Report

cc. Grant Goddard, Sylvain Proulx, Tim Sewell, Connor Devereaux, Gerald Rogers, Francois Gaudreau (Baffinland), Stephen Bathory (QIA), Ian Parsons, Jeremy Fraser (INAC).





Photo 1. AE Lift Station after clean up

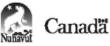




Figure 1. Map of spill location







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
Α	00-04-2010			21:00		▼ORIGINAL SPILL RE	PORT,	REPORT NUMBER
В	OCCURRENCE DATE: MONTH			20:00	ENCE TIME	□ UPDATE # TO THE ORIGINAL SPI	L REPORT	18 - 153
C	IOL - Commercia	Lease: Q13C30	-		WATER LICENCE NUMBER 2AM-MRY1325	The same of the same of		
D	Mary River Mine				REGION NWT XINUNAYU	IT □ ADJACENT JU	RISDICTION	OR OCEAN
Ε	LATITUDE. DEGREES 71	MINUTES 18	SECONDS 5	3	LONGITUDE DEGREES 79	MINUTES 17	SI	ECONDS 03
F	RESPONSIBLE PARTY OR VE Baffinland Iron M	lines Corp.	2275 Mid	ddle Ro	oress or office Location and East, Suite 3		ON L6H	0C3
G	1075	D	N/A		OR OFFICE LOCATION			
	PRODUCT SPILLED Raw Sewage		Approx.		OGRAMS OR CUBIC METRI	N/A		
Н	SECOND PRODUCT SPILLED	(IF APPLICABLE)	QUANTITY IN L	ITRES, KILO	OGRAMS OR CUBIC METRI	S U.N.NUMBER		
I	SPILL SOURCE Lift Station		SPILL CAUSE Discharg	ge line	failure	APPROX. 1		SQUARE METRES
J	FACTORS AFFECTING SPILL Congested area,		N/A	/ ASSISTAN	CE REQUIRED	N/A	SONS, PRO	PERTY OR EQUIPMENT
K	was cracked and pumped down to pad to the lift sta water body which The investigation This spill is being item 9 (b) pursua Act.	prevent any furition migrating of his currently from and cleanup are greported as rec	ther release. ver an area o zen. e ongoing, f quired by the	Appro of appr urther e condi	oximately 250 Lit ox. 15m2. The s details will be p tions of water li	tres impacted pill is >100 m rovided in the cense no. 2Al	the adj from the follow- N-MRY1	acent MSC e nearest up report. 325, Part H ,
L	REPORTED TO SPILL LINE BY	POSITION Env. Superi	rtandant	EMPLOYE Baffin		LOCATION CALLING FI		ELEPHONE
	ANY ALTERNATE CONTACT	POSITION		EMPLOYE	llana i	Mary River ALTERNATE CONTACT	. ,	
M	Tim Sewell	Head of HS	E	Daffin				416 364 8820 LITERINATE TELEPHONE
L	DESCRIES AT SOUL LINE SH	1 1000000 0 1 1 1000			n Iland	LOCATION		416 364 8820
N	RECEIVED AT SPILL LINE BY	DOUTION	REPORT LIN	IE USE ON	n Iland LY	LOCATION		416 364 8820 ELTERNATE TELEPHONE ext. 6016
LEA		POSITION STATION OPERATOR			n Iland LY			416 364 8820 LITERNATE TELEPHONE
	DAGENCY DEC DCCG	STATION OPERATOR	1	EMPLOYE	n Iland LY	LOCATION CALLED YELLOWKNIFE, NT		416 364 8820 ALTERNATE TELEPHONE ext. 6016 REPORT LINE NUMBER
AGE	D AGENCY DEC DCCG	STATION OPERATOR	1	E USE ON EMPLOYE SIGNI	R Iland LY R	LOCATION CALLED YELLOWKNIFE, NT		416 364 8820 ILTERNATE TELEPHONE ext. 6016 REPORT LINE NUMBER 867) 920-8130
		STATION OPERATOR	1	E USE ON EMPLOYE SIGNI	R Iland LY R	LOCATION LOCATION CALLED YELLOWKNIFE, NT JOR UNKNOWN		416 364 8820 ILTERNATE TELEPHONE ext. 6016 REPORT LINE NUMBER 867) 920-8130
LEA	NCY	STATION OPERATOR	1	E USE ON EMPLOYE SIGNI	R Iland LY R	LOCATION LOCATION CALLED YELLOWKNIFE, NT JOR UNKNOWN		416 364 8820 LTERNATE TELEPHONE ext. 6016 REPORT LINE NUMBER 867) 920-8130
LEA	ENCY D AGENCY	STATION OPERATOR	1	E USE ON EMPLOYE SIGNI	R Iland LY R	LOCATION LOCATION CALLED YELLOWKNIFE, NT JOR UNKNOWN		416 364 8820 ILTERNATE TELEPHONE ext. 6016 REPORT LINE NUMBER 867) 920-8130

PAGE 1 OF __1

Figure 2. Baffinland NT NU spill report



June 5, 2018

Resource Management Officer Nunavut Field Operations Indigenous and Northern Affairs Canada Box 100 Iqaluit, NU X0A 0H0 Jonathan.Mesher@aandc-aadnc.gc.ca Manager, Major Projects Qikiqtani Inuit Association P.O. Box 219 Iqaluit, NU X0A 0H0

Re: Follow-up to Spill #18-154
Mary River Project - Water Licence No. 2AM-MRY1325

Summary:

On May 5, 2018 at 11:00 Hrs a vac truck operator was approaching the new wastewater treatment plant (WWTP) at the Mine Site and observed liquid leaking from the effluent tank door. Upon investigation, it was determined that the effluent tank had overflowed and approximately 0.5m3 of treated effluent was released to the WWTP pad, impacting an area of approximately 10m2. Communications and associated vacuum truck scheduling procedures are being revised to prevent an overflow reoccurrence. The location is >100m to the nearest water course which was frozen.

Immediate and Follow-Up Action:

The WWTP operator instructed the vacuum truck to bring down the levels of the effluent tank to prevent over flow immediately. Contaminated material was removed with an excavator and disposed of.

Recommendations:

It was recommended that a Standard Operating Procedure (SOP) be implemented to define operational check and balances of the plant while ensuring all communication and responsibility requirements of an operating WWTP and discharge system are clearly outlined. An audio alarm system was recommended for installation to warn of high tank levels

Current Status:

Benjamin Widdewern

An SOP was developed and implemented that verifies tank levels and operational checks. An audio alarm has been ordered to mitigate potential overflow occurrences. Communication strategies have been defined and primary responsibilities assigned to ensure that all WWTP parties are coordinated through Project site services. A permit to work system was implemented for the WWTP which defines the above.

Should you require further information or clarification on the above noted spill, please feel free to contact William Bowden or Connor Devereaux at (647) 253- 0596 x6016.

Bell Barder

Prepared by: Reviewed by:

Ben Widdowson William Bowden

Environmental Coordinator Environmental Superintendent

Attach: Photos, Map, Baffinland NT-NU Spill Report

cc. Grant Goddard, Sylvain Proulx, Tim Sewell, Connor Devereaux, Gerald Rogers, Francois Gaudreau (Baffinland), Stephen Bathory (QIA), Ian Parsons, Jeremy Fraser (INAC).



Photo 1. WWTP Before clean up



Photo 2. AE Lift Station after clean up



Figure 1. Map of spill location





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

A	REPORT DATE: MONTH - DAY - YE 05-06-2018	AR		13:00			□ ORIGINAL SPILL REI	PORT,	REPORT NUMBER
-	OCCURRENCE DATE: MONTH - DA	AY - YEAR			ENCE TIME		OR XUPDATE # 18-15	4	18 - 154
В	05-05-2018			11:00			TO THE ORIGINAL SPIL	L REPORT	10 - 104
С	LAND USE PERMIT NUMBER (IF A IOL - Commercial Le				WATER LICENS 2AM-MR		(FAPPLICABLE) Type "A"		
D	GEOGRAPHIC PLACE NAME OR D Mary River Milne Inl			LOCATION	REGION NWT	X NUNAYU	T DADJACENTJU	RISDICTION	OR OCEAN
Е	LATITUDE. DEGREES 71 MI	NUTES 18	SECONDS 84		LONGITUDE DEGREES 7	9	MINUTES 17	S	ECONDS 93
F	RESPONSIBLE PARTY OR VESSEI		RESPONSIBLE	E PARTY ADDRESS OR OFFICE LOCATION iddle Road East, Sutie 300, Oakville, ON L6H 0C3					
Г	Baffinland Iron Mine	es Corp.	CONTRACTOR				00, Oakville, C	ON L6H	0C3
G	Horizon		N/A	ADDRESS	OR OFFICE LO	GATION			
	PRODUCT SPILLED		QUANTITY IN L	ITRES, KILC	OGRAMS OR C	UBIC METRE			
н	Treated Effluent		Approxi				N/A		
	SECOND PRODUCT SPILLED (IF A	APPLICABLE)	N/A	ITRES, KILC	OGRAMS OR C	UBIC METRE	N/A		
1	SPILL SOURCE Wastewater treatme	ent plant	SPILL CAUSE Effluent	Tank O	verflow		10m2	IINATION IN	SQUARE METRES
J	FACTORS AFFECTING SPILL OR F Frozen, cold conditi		DESCRIBE ANY	/ ASSISTAN	ICE REQUIRED		N/A	ISONS, PRO	PERTY OR EQUIPMENT
	ADDITIONAL INFORMATION, COM	MENTS, ACTIONS PROP	OSED OR TAKEN T	TO CONTAIN	, RECOVER O	R DISPOSE O	F SPILLED PRODUCT	AND CONTA	MINATED MATERIALS
	On May 5, 2018 at 1: plant (WWTP) at the					_			
K	plant (WWTP) at the then called his supe tank to prevent furth overflowed and app	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Conta st water course and details of equired by the equired by the	observed I WWTP ope oon investi m3 of treate aminated m which is of the cleanu conditions	liquid le erator. gation, ed efflu naterial currentl up will l of NW	eaking fr The open it was do lent was was rem ly frozen be provid B Water	om the rator was etermin release noved and the decimal	effluent tank of as instructed the that the effect of the	door. To vacuifluent to P pad, of. The lunderweeport. Ty1325,	he operator um down the ank had impacting an location is ay to Fhis spill is Part H, item 9
	plant (WWTP) at the then called his supe tank to prevent furth overflowed and app area of approximate >100m to the neares determine the cause being reported as re (b) pursuant to subs	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Contact water course and details of equired by the section 12(3) of	observed a WWTP open investions of treatment of the change of the clean conditions of the Nunav	liquid li erator. gation, ed efflunaterial currentl up will li of NWI vut Wat	eaking fr The oper it was do uent was was rem ly frozen be provid B Water ters and	om the rator was etermin release noved a . An invided in the License Nunavu	effluent tank of as instructed to the the to the WWT and disposed of estigation is une follow-up reno. 2AM-MR's t Surface Right	door. To vacuifluent to P pad, of. The lunderweport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act.
K	plant (WWTP) at the then called his supe tank to prevent furth overflowed and app area of approximate >100m to the neares determine the cause being reported as re (b) pursuant to subs	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Contact water course and details of equired by the section 12(3) of POSITION Env. Superin	observed a WWTP open investions of treatment of the change of the clean conditions of the Nunav	liquid li erator. gation, ed efflu naterial currentl up will of NWI vut Wat	eaking fr The oper it was do uent was was rem ly frozen be provid B Water ters and	om the rator wa etermin release noved a . An inv ded in th License Nunavu	effluent tank of as instructed to the the to the WWT and disposed of estigation is une follow-up respondent Surface Right Mary River	door. To vacuifluent to P pad, of. The lunderweport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act.
	plant (WWTP) at the then called his supe tank to prevent furth overflowed and app area of approximate >100m to the neares determine the cause being reported as re (b) pursuant to subs	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Contact water course and details of equired by the section 12(3) of	observed WWTP ope oon investi- m3 of treat- aminated m which is of the cleanu- conditions f the Nunav- tendent	erator. gation, ed efflu naterial currentl p will of NW vut Wat EMPLOYE Baffin EMPLOYE Baffin	eaking fr The oper it was dependent was was rem by frozen be provid B Water ters and land filand	om the rator wa etermin release noved a . An inv ded in ti License Nunavu	effluent tank of as instructed to the the to the WWT and disposed of estigation is une follow-up reno. 2AM-MR's t Surface Right	door. To vacuifluent to P pad, of. The lunderweeport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act.
L	plant (WWTP) at the then called his super tank to prevent furth overflowed and app area of approximate >100m to the neares determine the cause being reported as re (b) pursuant to substitute to substitute the pursuant to substitute the p	Mine Site and ervisor and the ner spillage. Up roximately 0.5rely 10m2. Contact water course and details of equired by the section 12(3) of POSITION POSITION Head of HSE	observed a WWTP open investions of treatment of the change of the clean conditions of the Nunav	erator. gation, ed efflu naterial currentl p will of NW vut Wat EMPLOYE Baffin EMPLOYE Baffin	eaking fr The oper it was dependent was rem by frozen by frozen be provid B Water it ters and it aliand aliand	om the rator wa etermin release noved a . An inv ded in th License Nunavu	effluent tank of as instructed to the the to the WWT and disposed of estigation is une follow-up respondent to Surface Right Mary River ALTERNATE CONTACT LOCATION	door. To vacuifluent to P pad, of. The underweport. Ty1325, this Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016
L	plant (WWTP) at the then called his super tank to prevent furth overflowed and apparea of approximate >100m to the nearest determine the cause being reported as re (b) pursuant to substitute to substitute the pursuant to substitute the p	Mine Site and ervisor and the ner spillage. Up roximately 0.5rely 10m2. Contact water course and details of equired by the section 12(3) of POSITION POSITION	observed WWTP ope oon investi- m3 of treat- aminated m which is of the cleanu- conditions f the Nunav- tendent	erator. gation, ed efflu naterial currentl p will of NW vut Wat EMPLOYE Baffin EMPLOYE Baffin	eaking fr The oper it was dependent was rem by frozen by frozen be provid B Water it ters and it aliand aliand	om the rator wa etermin release noved a . An inv ded in the License Nunavu	effluent tank of as instructed to the the the thought of the	door. To vacuifluent to P pad, of. The underweport. Ty1325, this Trib	the operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016
L M N	plant (WWTP) at the then called his super tank to prevent furth overflowed and app area of approximate >100m to the nearest determine the cause being reported as re (b) pursuant to substitute the pursuant to su	Mine Site and ervisor and the ner spillage. Up to spillage. Up to see and details of equired by the section 12(3) of Env. Superin Position Head of HSE POSITION POSITION POSITION FOSITION FOSITION FOSITION STATION OPERATOR	observed WWTP oper on investigms of treatment of the clean conditions of the Nunavertendent	liquid ligerator. gation, ed efflunaterial currentl up will light wat vut Wat EMPLOYE Baffin EE USE ON EMPLOYE	eaking fr The oper it was de ient was de ient was rem ly frozen be provid B Water it ters and it R Inland R Inland IX	om the rator was etermin release noved and the control of the cont	effluent tank of as instructed to the	door. To vacuifluent to P pad, of. The underweport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016 REPORT LINE NUMBER 1867, 920-8130
L M N	plant (WWTP) at the then called his super tank to prevent furth overflowed and app area of approximate >100m to the nearest determine the cause being reported as re (b) pursuant to substitute by William Bowden ANY ALTERNATE CONTACT TIM Sewell RECEIVED AT SPILL LINE BY	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Contact water course and details of equired by the section 12(3) of Env. Superin Position Head of HSE	observed WWTP oper on investigms of treatment of the clean conditions of the Nunavertendent	liquid lo erator. gation, ed efflu naterial currentl up will l of NWI vut Wat EMPLOYE Baffin EMPLOYE Baffin EMPLOYE SIGNIE	eaking fr The oper it was de ient was de ient was rem ly frozen be provid B Water i ters and i R hland R hland R FICANCE IM	om the rator was etermin release noved and the control of the cont	effluent tank of as instructed to the	door. To vacuifluent to P pad, of. The underweport. Ty1325, hts Trib	the operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016
L M N LEAI	plant (WWTP) at the then called his super tank to prevent furth overflowed and app area of approximate >100m to the nearest determine the cause being reported as re (b) pursuant to substitute the substitute of the pursuant to substitute of the pu	Mine Site and ervisor and the ner spillage. Up to spillage. Up to see and details of equired by the section 12(3) of Env. Superin Position Head of HSE POSITION POSITION POSITION FOSITION FOSITION FOSITION STATION OPERATOR	observed WWTP operation of treatment of the clean conditions of the Nunavertendent	liquid lo erator. gation, ed efflu naterial currentl up will l of NWI vut Wat EMPLOYE Baffin EMPLOYE Baffin EMPLOYE SIGNIE	eaking fr The oper it was de ient was de ient was rem ly frozen be provid B Water it ters and it R Inland R Inland IX	om the rator was etermin release noved and the control of the cont	effluent tank of as instructed to the	door. To vacuifluent to P pad, of. The underweport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016 REPORT LINE NUMBER 1867, 920-8130
L M N LEAI	plant (WWTP) at the then called his super tank to prevent furth overflowed and app area of approximate >100m to the nearest determine the cause being reported as re (b) pursuant to substitute by William Bowden ANY ALTERNATE CONTACT TIM Sewell RECEIVED AT SPILL LINE BY	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Contact water course and details of equired by the section 12(3) of Env. Superin Position Head of HSE	observed WWTP operation of treatment of the clean conditions of the Nunavertendent	liquid lo erator. gation, ed efflu naterial currentl up will l of NWI vut Wat EMPLOYE Baffin EMPLOYE Baffin EMPLOYE SIGNIE	eaking fr The oper it was de ient was de ient was rem ly frozen be provid B Water i ters and i R hland R hland R FICANCE IM	om the rator was etermin release noved and the control of the cont	effluent tank of as instructed to the	door. To vacuifluent to P pad, of. The underweport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016 REPORT LINE NUMBER 1867, 920-8130
L M N LEAR	plant (WWTP) at the then called his super tank to prevent furth overflowed and app area of approximate >100m to the nearest determine the cause being reported as re (b) pursuant to substitute the substitute of the pursuant to substitute of the pu	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Contact water course and details of equired by the section 12(3) of Env. Superin Position Head of HSE	observed WWTP operation of treatment of the clean conditions of the Nunavertendent	liquid lo erator. gation, ed efflu naterial currentl up will l of NWI vut Wat EMPLOYE Baffin EMPLOYE Baffin EMPLOYE SIGNIE	eaking fr The oper it was de ient was de ient was rem ly frozen be provid B Water i ters and i R hland R hland R FICANCE IM	om the rator was etermin release noved and the control of the cont	effluent tank of as instructed to the	door. To vacuifluent to P pad, of. The underweport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016 REPORT LINE NUMBER 1867, 920-8130
L N LEAI AGE LEAI FIRS	plant (WWTP) at the then called his super tank to prevent furth overflowed and app area of approximate >100m to the nearest determine the cause being reported as re (b) pursuant to substitute the pursuant to su	Mine Site and ervisor and the ner spillage. Up roximately 0.5 ely 10m2. Contact water course and details of equired by the section 12(3) of Env. Superin Position Head of HSE	observed WWTP operation of treatment of the clean conditions of the Nunavertendent	liquid lo erator. gation, ed efflu naterial currentl up will l of NWI vut Wat EMPLOYE Baffin EMPLOYE Baffin EMPLOYE SIGNIE	eaking fr The oper it was de ient was de ient was rem ly frozen be provid B Water i ters and i R hland R hland R FICANCE IM	om the rator was etermin release noved and the control of the cont	effluent tank of as instructed to the	door. To vacuifluent to P pad, of. The underweport. Ty1325, hts Trib	he operator um down the ank had impacting an location is ay to This spill is Part H, item 9 bunal Act. TELEPHONE 416 364 8820 ALTERNATE TELEPHONE 6016 REPORT LINE NUMBER 1867, 920-8130

PAGE 1 OF ___

Figure 2. Baffinland NT NU spill report