APPENDIX D
AS BUILT REPORTS

APPENDIX D.1
CONSTRUCTION SUMMARY REPORT- MILNE PORT OFF-SPEC PWSP

Baffinland Iron Mines Corporation
Mary River Project

Construction Summary Report: Construction Summary Report: Milne Port Off-Spec Sewage Effluent Pond (PWSP)

2013-12-19	0	Approved For Use	S. Potter	S. Hassan	S. Perry	O. Curran
DATE	REV.	STATUS	PREPARED BY	CHECKED BY	APPROVED BY	APPROVED BY
			HATCH			CLIENT

Table of Contents

List of Appendices

1. Facility Description

1.1 Purpose and Design Basis

The off-spec effluent pond has been constructed to store the off-spec effluent from the Milne Port Sewage Treatment Plant (STP). During normal operation, the treated effluent from the STP will be directed to the permitted discharge point(s) at Milne Inlet. In the event that the treated effluent does not meet discharge requirements, the off-spec effluent will be pumped to the pond. Once the problem in the STP is corrected, the off-spec effluent from the pond will be transported via vacuum truck and re-processed through the STP before dierctly discharing to Milne Inlet.

The design basis for the pond's storage capacity is as following:

- Total bed/population during operation = 120 nos
- Sewage generation rate = 300 lpd
- Required 30 days off-spec effluent storage volume during operation = 1,080 m^3 with 0.3m free board
- Designed pond volume = 2,230 m^3 with 0.3m free board (the designed volume represents working capacity for early construction and startup based on 120 people's 62 days storage or 248 people's 30 days storage).

1.2 Location and Base Elevations

The pond is located at south side of the fuel tank farm and west side of power generators with northing between N7,976,020 and N7,976,060 and easting between E503,590 and E503,670. Pond bottom elevation is EL. 12.80 m and berm top elevation is EL. 14.28 m.

1.3 Geometry and Access

The pond has been constructed as rectangular shape to optimize the earthworks materials (granular fills and liner). The pond berms have side slope not steeper than 3H:1V and the berm top width is 3.0 m to meet the access and liner anchoring requirements. The pond also has a 6 m wide 6% grade access ramp with a 6 m x 10 m landing pad at the end of the access ramp for provideing vacuum truck access to pump off-spec water out the pond and it has sloped surface toward to the pond.

There is a 14 m x 6 m anex area at east side of the landing pad to accomodate a sattelite shed pad.

1.4 Earthworks Materials Details

The pond has been constructed with raised earthworks on top of the laydown pad B1-B2-B3. It has been sealed with exposed liner material for storing the off-spec effluent without any leakage. The pond materials are listed below:

- Type 8 (150 mm minus) as main/core material of berm

- Type 5 (32 mm minus) for covering the core material on top and inside surface of the berm
- Type 6 / Type 9 (9.5 mm minus) for liner bedding and anchoring
- Type 4 Geomembrane (Enviro liner 6060 HD)
- Non-woven geotextile (Layfield LP7) for protection of the liner material
- Jersey barrier for truck safety.

1.5 Issue for Construction (IFC) Drawings

Two IFC drawings have been issued that include plan, sections and details which are as follows:

- H349000-2735-10-035-0001: Minle Port Off-Spec Effluent Pond – Plan
- H349000-2735-10-035-0002: Minle Port Off-Spec Effluent Pond – Sections & Details.

As part of the engineering design process, a 3D earthworks model of the pond including the berm, access ramp, landing and satellite shed pad were prepared, the drawings went through internal and client reviews and finally issued with the P.Eng.

2. Construction Activity Summary

Based on the design drawings:

- The area was cleared and graded to prepare the subbase for the effluent pond.
- 100mm of Type 8 (150 mm minus) was placed for the construction of the berm, but RFI-008 was issued to address the size of aggregate being produced from Run of Quarry (ROQ). Material with a range of 100-300mm was approved by the field engineer. Refer to Section 5 for details of the field instruction.
- Another layer of 100mm Type 9 (9.5 minus) or Type 6 (4.75 minus) was placed on top.
- A non-woven geotextile was added with the liner as the final phase of the components of the effluent pond. Refer to Appendix A for details of QA/QC of liner installation.

The quality assurance and quality control (QA/QC) conducted by Layfield, documents the preparation of the subgrade, installation and testing of the geomembrane with a final inspection of the completed liner.

- A certificate of acceptance of the soil subgrade for installation of the liner was verified and signed by the NUNA project coordinator and Layfield Environmental supervisor.
- A geomembrane deployment log describes the location, size, temperature when placed, visually observed and initialled that the panel had been checked.

- A geomembrane trial seam log tested the welding before the entire installation proceeded. Connection of the trial panels checked and signed off.
- An air lance test log had been completed for each seam and signed off.
- A layout drawings shows all of the panel numbers, as described in the log documents.
- A certificate of final inspection and acceptance was signed by Layfield and Nuna representatives.

See Appendix A – Liner Data

2.1 Photographic Records

Figure 1: Before – Sub-grade Prepared

Figure 2: Before – Levelling

Figure 3: During - Liner Installed

Figure 4: During – Grading of Final Layer

Figure 5: Completed – Earthworks

Figure 6: Completed – Operational

3. As-Built Drawings

The as-built drawings were signed on December 17, 2013 by Bradford Watkin representing NUNA. The drawing states that “this drawing accurately reflects the as-built field condition in conjunction with the survey as-built data”. Please refer to Appendix B – As built Drawings.

Table 3-1: 'As-Built' Drawing List

Drawing Number	Title	Revision
H349000-2735-10-035-0001 1 S ABMU01-YX001	OFF-SPEC EFFLUENT POND (PSWP) - PLAN	1
H349000-2735-10-035-0001 2 S ABMU01-YX001	OFF-SPEC EFFLUENT POND (PSWP) – SECTIONS AND DETAILS	2
H349000-2735-10-015-0001-0-S-ABMU01-YX001	MILNE PORT LAYDOWN AREA, CAMP & SERVICES BUILDINGS RUN OF QUARRY FILL AREAS	0

4. Unanticipated Observations

Not applicable.

5. Field Decisions

- The as-built design of the effluent pond had a size variation from the material specified in the issued for construction design drawings. The design indicated 150mm minus material for base material and berms.
- Request for information (NE-RFI-008) was submitted on June 2nd, 2013 for the use of ROQ material produced from blasting in the range of 100-300mm.
- The corrective action was to allow the base material and berms to be built with the ROQ material produced. The material would be selected specifically and approved by the client representative before being placed.
- Refer to appendix for field instruction NE-RFI-008 (See Appendix C).

6. Vibration Monitoring

No vibration monitoring was conducted during the construction of the Milne Port Off-Spec Effluent Pond (PWSP) as it was not deemed necessary based on scope of activities required for construction.

A geotechnical inspection was conducted in 2013 by a 3rd party, independent, Nunavut certified engineer that was inclusive of all containment structures at the Mary River Mine Site and Milne Port site including the Milne Port Off-Spec Effluent Pond (PWSP). As noted in Section 4.09 of Appendix D, the inspection found "no sign of weakness in any of the construction" of the Milne Port Off-Spec Effluent Pond (PWSP).

Control for quarrying activity was conducted as per the quarry specific management plans. For the Milne Port Off-Spec Effluent Pond (PWSP), the quarry in closest proximity and used for aggregate material supply was Quarry Q1. Please see Quarry Management Plan, Milne Inlet Quarry (Q1) (H349000-1000-07-126-0013) for detailed information of quarrying activity controls. It should be noted however this quarry is not in close proximity to fish bearing water.

7. Environmental Monitoring

Environmental monitoring at Milne Port during the construction Milne Port Off-Spec Effluent Pond (PWSP) was conducted as per the 2013 Comprehensive Environmental Monitoring Plan (March 2013).

The risks to the water quality at Milne Port as a result of construction of the Milne Port Off-Spec Effluent Pond (PWSP) would originate from following sources based on construction methodology:

- Spills from equipment
- Increase in sediment load in the water.

There were no recorded spills from equipment used in the construction of the PWSP and the water monitoring results show that the Total Suspended Solids (TSS) levels were below the required thresholds. As such, the environmental mitigation strategies were effective in maintaining runoff water quality. See internal and external surface water monitoring results for Milne Port in Appendix E.

8. Fuel Storage System

Not applicable.

9. Earthworks Data

9.1 Survey Data

Based on the design drawings provided, a survey was conducted on each material required to build the effluent pond. NUNA East Ltd, provided a completion of construction document, Hatch document E349000-YX00100-124-0005 Sub01 contains the survey data in Section 4 which has been extracted as reference and can be seen in Appendix F.

9.2 Geotechnical Data

Not applicable.

10. Performance Evaluation

Not applicable.

11. Surface Monitoring

None conducted.

12. Required Maintenance

None conducted.

13. Adaptive Management

Based on monitoring results indicating no adverse significant environmental impacts, no specific adaptive management practices were implemented as a result of construction of the Milne Port Off-Spec Effluent Pond (PWSP).

For discussion of adaptive management principles and practices applied during the Construction Phase of the Project and their overall effectiveness please refer to the 2013 Annual Report to the Nunavut Impact Review Board (to be submitted in March 2014).

Appendix A
Liner Data

NUNA EAST LTD

Section 8

Liner Data

LAYFIELD

CERTIFICATE OF ACCEPTANCE OF SOIL SUBGRADE SURFACE

PROJECT NAME: 146-091
PROJECT NUMBER: Baffinland MRP Milne Port Fuel Upgrade Phase 2 - "Effluent Pond"
OWNER: Nuna logistics
LOCATION: Baffinland NU

I, the undersigned, a duly appointed representative of Layfield Environmental Systems Ltd. (LESL), have visually observed the soil subgrade described below, and found it to be an acceptable surface on which to install geomembrane.

This certification is based on observations of the surface of the subgrade only. No subterranean inspections or tests have been performed by Layfield Environmental Systems, and LESL makes no representations or warranties regarding conditions which may exist below the surface of the subgrade. Layfield Environmental Systems accepts no responsibility for conformance of the subgrade to this project's specifications.

The soil subgrade accepted on this date refers to its present condition. Any changes in the subgrade condition that result from the effects of inclement weather and/or other forces beyond the control of Layfield Environmental Systems and remedial work to correct the resulting deficiencies, will be the direct responsibility of the General Contractor.

Area Being Accepted: Sand on the surface with minor repairs to do along the pond other and that Grand surface to install liner.

LAYFIELD ENVIRONMENTAL SYSTEMS REPRESENTATIVE:

Date: 19-July 2013
Signature:
Name: Yonatan Espindola
Title: Supervisor

OWNERS REPRESENTATIVE:

Date: 19/July/2013
Signature:
Name: Mike Price
Title: Project Coordinator
Company: Nuna East.

LAYFIELD GEOMEMBRANE DEPLOYMENT LOG

PROJECT NUMBER: 14c-091 **PROJECT TITLE:** Effluent Pond

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinland NU

GEOMEMBRANE **SECONDARY** **PRIMARY** **CLOSURE** **OTHER**

SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):

REMARKS: Installation of LP12 Geotextile under lay and EL 60-60

DATE: 20-Jul-13

SHEET NUMBER: 1

DEPLOYMENT EQUIPMENT: Spreader Bar and Crane

	PANEL LOCATION REFERENCE NUMBER 1	PANEL LOCATION REFERENCE NUMBER 2	PANEL LOCATION REFERENCE NUMBER 3
PANEL/ROLL NUMBER	005759995	005759995	005759995
DEPLOYMENT LENGTH	48.76 mts	9.11 X 4.8 mts	4.8 X 4.26 mts
AMBIENT AIR TEMP.	2 C	2C	2C
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= TRENCH S= TRENCH E= TIE-IN W= P14	N= TRENCH S= P4 E= P3 W= P1	N= TRENCH S= P5 E= P5 W= P2

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 4	PANEL LOCATION REFERENCE NUMBER 5	PANEL LOCATION REFERENCE NUMBER 6
PANEL/ROLL NUMBER	005759995	005759995	005759995
DEPLOYMENT LENGTH	9.69 X 4.8 mts	4.57 X 3.5 mts	9.6 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Good	Good	Damage
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= P2, P3, P5 S= P6 E= TRENCH W= P1	N= P3 S= P4 E= TRENCH W= P2, P3	N= P4 S= P7 E= TRENCH W= P1

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 7	PANEL LOCATION REFERENCE NUMBER 8	PANEL LOCATION REFERENCE NUMBER 9
PANEL/ROLL NUMBER	005759995	005759995	005759995
DEPLOYMENT LENGTH	9.6 mts	9.6 mts	9.6 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Damage	Good	Good
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= P6 S= P8 E= TRENCH W= P1	N= P7 S= P9 E= TRENCH W= P1	N= P8 S= P10 E= TRENCH W= P1

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 10	PANEL LOCATION REFERENCE NUMBER 11	PANEL LOCATION REFERENCE NUMBER 12
PANEL/ROLL NUMBER	005759995	005759995	005759995
DEPLOYMENT LENGTH	9.6 mts	9.6 mts	9.6 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= P9 S= P11 E= TRENCH W= P1	N= P10 S= P12 E= TRENCH W= P1	N= P11 S= P13 E= TRENCH W= P1

SUBMITTED BY: PH

DATE: 20-Jul-13

LAYFIELD GEOMEMBRANE DEPLOYMENT LOG

PROJECT NUMBER: 14c-091 **PROJECT TITLE:** Effluent Pond

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinland NU

GEOMEMBRANE **SECONDARY** **PRIMARY** **CLOSURE** **OTHER** _____

SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):

REMARKS: Installation of LP12 Geotextile under lay and EL 60-60

DATE: 20-Jul-13

SHEET NUMBER: 2

DEPLOYMENT EQUIPMENT: Spreader Bar and Crane

	PANEL LOCATION REFERENCE NUMBER 13	PANEL LOCATION REFERENCE NUMBER 14	PANEL LOCATION REFERENCE NUMBER 15
PANEL/ROLL NUMBER	005759995	005759995	005759995
DEPLOYMENT LENGTH	9.6 mts	48.76 mts	23.31 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Good	Good	Damage
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= P12 S= TRENCH E= TRENCH W= P1	N= TRENCH S= TRENCH E= P1 W= P15, P16	N= P16 S= TRENCH E= P14 W= P17

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 16	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER	005760583		
DEPLOYMENT LENGTH	34.44 mts		
AMBIENT AIR TEMP.	2 C		
VISUAL OBSERVATION	Damage		
OBSERVED OVERLAP	6"		
CHECKED BY	PH		
ADJACENT PANEL	N= S= E= W=	N= S= E= W=	N= S= E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER			
DEPLOYMENT LENGTH			
AMBIENT AIR TEMP.			
VISUAL OBSERVATION			
OBSERVED OVERLAP			
CHECKED BY			
ADJACENT PANEL	N= S= E= W=	N= S= E= W=	N= S= E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER			
DEPLOYMENT LENGTH			
AMBIENT AIR TEMP.			
VISUAL OBSERVATION			
OBSERVED OVERLAP			
CHECKED BY			
ADJACENT PANEL	N= S= E= W=	N= S= E= W=	N= S= E= W=

SUBMITTED BY: PH

DATE: 20-Jul-13

LAYFIELD GEOMEMBRANE DEPLOYMENT LOG

PROJECT NUMBER: 14c-091 **PROJECT TITLE:** Effluent Pond

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinland NU

GEOMEMBRANE **SECONDARY** **PRIMARY** **CLOSURE** **OTHER**

SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):

REMARKS: Installation of LP12 Geotextile under lay and EL 60-60

DATE: 21-Jul-13

SHEET NUMBER: 3

DEPLOYMENT EQUIPMENT: Spreader Bar and Crane

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 17	PANEL LOCATION REFERENCE NUMBER 18	PANEL LOCATION REFERENCE NUMBER 19
PANEL/ROLL NUMBER	005760583	005760583	005760583
DEPLOYMENT LENGTH	57.30 mts	48.78 mts	48.76 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= TRENCH S= TRENCH E= P15, P16 W= P18	N= TRENCH S= TRENCH E= P17 W= P19	N= TRENCH S= TRENCH E= P18 W= TIE-IN

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 20	PANEL LOCATION REFERENCE NUMBER 21	PANEL LOCATION REFERENCE NUMBER 22
PANEL/ROLL NUMBER	005760583	005760583	005760583
DEPLOYMENT LENGTH	10.82 mts	10.82 mts	10.82 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= TRENCH S= P21 E= P19 W= TRENCH	N= P20 S= P22 E= P19 W= TRENCH	N= P21 S= P23 E= P19 W= TRENCH

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 23	PANEL LOCATION REFERENCE NUMBER 24	PANEL LOCATION REFERENCE NUMBER 25
PANEL/ROLL NUMBER	005901040	005901040	005901040
DEPLOYMENT LENGTH	10.66 mts	10.63 mts	10.57 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Delivery Damage	Good	Good
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= P22 S= P24 E= P19 W= TRENCH	N= P23 S= P25 E= P19 W= TRENCH	N= P24 S= P26 E= P19 W= TRENCH

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 26	PANEL LOCATION REFERENCE NUMBER 27	PANEL LOCATION REFERENCE NUMBER 28
PANEL/ROLL NUMBER	005901040	005901040	005901040
DEPLOYMENT LENGTH	10.57 mts	10.66 mts	10.45 mts
AMBIENT AIR TEMP.	2 C	2 C	2 C
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	6"	6"	6"
CHECKED BY	PH	PH	PH
ADJACENT PANEL	N= P25 S= P27 E= P19 W= TRENCH	N= P26 S= P28 E= P19 W= TRENCH	N= P27 S= P29 E= P19 W= TRENCH

SUBMITTED BY: PH

DATE: 20-Jul-13

LAYFIELD

GEOMEMBRANE DEPLOYMENT LOG

PROJECT NUMBER: 14c-091 **PROJECT TITLE:** Effluent Pond

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinland NU

GEOMEMBRANE **SECONDARY** **PRIMARY** **CLOSURE** **OTHER** ____

SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):

REMARKS: Installation of LP12 Geotextile under lay and EL 60-60

DATE: 21-Jul-13

SHEET NUMBER: 4

DEPLOYMENT EQUIPMENT: Spreader Bar and Crane

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 29	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER	005901040		
DEPLOYMENT LENGTH	10.21 mts		
AMBIENT AIR TEMP.	2 C		
VISUAL OBSERVATION	Good		
OBSERVED OVERLAP	6"		
CHECKED BY	PH		
ADJACENT PANEL	N= P28 S= TRENCH E= P19 W= TRENCH	N= S= E= W=	N= S= E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER			
DEPLOYMENT LENGTH			
AMBIENT AIR TEMP.			
VISUAL OBSERVATION			
OBSERVED OVERLAP			
CHECKED BY			
ADJACENT PANEL	N= S= E= W=	N= S= E= W=	N= S= E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER			
DEPLOYMENT LENGTH			
AMBIENT AIR TEMP.			
VISUAL OBSERVATION			
OBSERVED OVERLAP			
CHECKED BY			
ADJACENT PANEL	N= S= E= W=	N= S= E= W=	N= S= E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER			
DEPLOYMENT LENGTH			
AMBIENT AIR TEMP.			
VISUAL OBSERVATION			
OBSERVED OVERLAP			
CHECKED BY			
ADJACENT PANEL	N= S= E= W=	N= S= E= W=	N= S= E= W=

SUBMITTED BY: ____

DATE: ____

LAYFIELD

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinlan NU **SHEET NUMBER:** 1

X **TF - # FUSION** _____ **TX - # = EXTRUSION** **TS - # = SOLVENT**

SAMPLE NUMBER	APPROX. TIME & DATE	WELDING MACHINE NUMBER	WELD TECH.	TEMPERATURES				TEST RESULTS												PASS OR RE-TEST	CH'KD BY	REMARKS
				AMBIENT AIR TEMP.	PREHEAT OR MACHINE SPEED	EXTRUDER	WEDGE TEMP. Deg F	INSIDE PEEL MODE STRENGTH					OUTSIDE PEEL MODE STRENGTH					SHEAR MODE STRENGTH				
TF-1	13:55 20-Jul-13	ESL 27 PW	PH	3C	50%		830	109	109	107	103	106	105	105	99	101	102	118	116	PASS	PH	
TF-2	8:18 21-Jul-13	ESL 27 PW	PH	3C	45%		830	113	109	107	109	108	104	102	105	103	104	125	119	PASS	PH	

LS FORM 3

LAYFIELD ENVIRONMENTAL SYSTEMS

SUBMITTED BY: _____

DATE: _____

LAYFIELD

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinlan NU **SHEET NUMBER:** 1

X **TF - # FUSION** _____ **TX - # = EXTRUSION** **TS - # = SOLVENT**

SAMPLE NUMBER	APPROX. TIME & DATE	WELDING MACHINE NUMBER	WELD TECH.	TEMPERATURES				TEST RESULTS										PASS OR RE-TEST	CH'KD BY	REMARKS
				AMBIENT AIR TEMP.	PREHEAT OR MACHINE SPEED	EXTRUDER	WEDGE TEMP. Deg F	INSIDE PEEL MODE STRENGTH					OUTSIDE PEEL MODE STRENGTH					SHEAR MODE STRENGTH				
TX-1	14:18 21-Jul-13	ESL 24 PX	RR	3C	460	480		109	132	101	134							114	127	PASS	PH	

LS FORM 3

LAYFIELD ENVIRONMENTAL SYSTEMS

SUBMITTED BY: _____

DATE: _____

LAYFIELD

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna logistics

LOCATION: Baffinlan NU

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID
X FUSION	TF-1	13:55 HRS	PH
EXTRUSION			
SOLVENT			

SHEET NUMBER: 1

DATE: 20-Jul-13

SEAM NUMBER	SEAM SECTION * START POINT	SEAM SECTION * FINISH POINT	APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES DIGITAL SET WEDGE OR BARREL	MACHINE TEMPERATURES INDICATOR WEDGE OR BARREL	APPROX. LENGTH WELDED (M)	DESTR. NUMBER	CHK'D BY	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CHECKED BY
2 / 3	SEOS TO NEOS		14:09	3C	PH	50%	830	830	4.8		PH		20-Jul-13	
4 / 5	EEOS TO WEOS		14:14	3C	PH	50%	830	830	4.6		PH		20-Jul-13	
4 / 6	EEOS TO WEOS		14:18	3C	PH	50%	830	830	9.7		PH		20-Jul-13	
6 / 7	EEOS TO WEOS		14:27	3C	PH	50%	830	830	9.6		PH		20-Jul-13	
2,3 / 4,5	EEOS TO WEOS		14:36	3C	PH	50%	830	830	11.8		PH		20-Jul-13	
7 / 8	EEOS TO WEOS		14:46	3C	PH	50%	830	830	9.6		PH		20-Jul-13	
8 / 9	EEOS TO WEOS		14:51	3C	PH	50%	830	830	9.6		PH		20-Jul-13	
9 / 10	EEOS TO WEOS		15:48	3C	PH	50%	830	830	9.6		PH		20-Jul-13	
10 / 11	EEOS TO WEOS		15:55	3C	PH	50%	830	830	9.6		PH		20-Jul-13	
11 / 12	EEOS TO WEOS		16:09	3C	PH	50%	830	830	9.6		PH		20-Jul-13	
12 / 13	EEOS TO WEOS		16:06	3C	PH	50%	830	830	9.6		PH		20-Jul-13	
								DAILY TOTAL	98.0					

** REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR, OR A POINT LOCATION ON THE SEAM.*

SUBMITTED BY: _____

DATE: _____

LAYFIELD

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna logistics

LOCATION: Baffinlan NU

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID
X FUSION	TF-1	13:55 HRS	PH
EXTRUSION			
SOLVENT			

SHEET NUMBER: 2

DATE: 20-Jul-13

SEAM NUMBER	SEAM SECTION * START POINT	SEAM SECTION * FINISH POINT	APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES DIGITAL SET WEDGE OR BARREL	MACHINE TEMPERATURES INDICATOR WEDGE OR BARREL	APPROX. LENGTH WELDED (M)	DESTR. NUMBER	CHK'D BY	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CHECKED BY
1 / 14	SEOS TO NEOS		16:41	3C	PH	50%	830	830	48.8		PH		20-Jul-13	
1 / TIE-IN	SEOS TO NEOS		17:17	3C	PH	50%	830	830	48.8	DT-1	PH	TIE-IN	20-Jul-13	
15 / 16	EEOS TO WEOS		18:04	3C	PH	50%	830	830	4.8		PH		20-Jul-13	
14 / 15,16	SEOS TO NEOS		18:09	3C	PH	50%	830	830	48.8		PH		20-Jul-13	
/														
/														
/														
/														
/														
/														
/														
								DAILY TOTAL	249.1					

* *REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR, OR A POINT LOCATION ON THE SEAM.*

SUBMITTED BY: PH

DATE: 20-Jul-13

LAYFIELD

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna logistics

LOCATION: Baffinlan NU

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID
X FUSION	TF-2	08:18 HRS	PH
EXTRUSION			
SOLVENT			

SHEET NUMBER: 3

DATE: 21-Jul-13

SEAM NUMBER	SEAM SECTION * START POINT	SEAM SECTION * FINISH POINT	APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES DIGITAL SET WEDGE OR BARREL	MACHINE TEMPERATURES INDICATOR WEDGE OR BARREL	APPROX. LENGTH WELDED (M)	DESTR. NUMBER	CHK'D BY	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CHECKED BY
15,16 / 17	SEOS TO NEOS		9:03	3C	PH	45%	830	830	57.3	DT-2	PH		21-Jul-13	
17 / 18	SEOS TO NEOS		9:30	3C	PH	45%	830	830	48.8		PH		21-Jul-13	
18 / 19	SEOS TO NEOS		10:56	3C	PH	45%	830	830	48.8		PH		21-Jul-13	
20 / 21	EEOS TO WEOS		12:09	3C	PH	45%	830	830	10.8		PH		21-Jul-13	
21 / 22	EEOS TO WEOS		12:15	3C	PH	45%	830	830	10.8		PH		21-Jul-13	
22 / 23	EEOS TO WEOS		12:25	3C	PH	45%	830	830	10.8		PH		21-Jul-13	
23 / 24	EEOS TO WEOS		12:32	3C	PH	45%	830	830	10.7		PH		21-Jul-13	
24 / 25	EEOS TO WEOS		12:53	3C	PH	45%	830	830	10.6	DT-3	PH		21-Jul-13	
25 / 26	EEOS TO WEOS		12:58	3C	PH	45%	830	830	10.6		PH		21-Jul-13	
26 / 27	EEOS TO WEOS		13:03	3C	PH	45%	830	830	10.6		PH		21-Jul-13	
27 / 28	EEOS TO WEOS		13:09	3C	PH	45%	830	830	10.6		PH		21-Jul-13	
								DAILY TOTAL	240.2					

** REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR, OR A POINT LOCATION ON THE SEAM.*

SUBMITTED BY: PH

DATE: 21-Jul-13

LAYFIELD

GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna logistics

LOCATION: Baffinlan NU

PASSING TRIAL SEAMS

	NO.	TIME	TECH ID
X FUSION	TF-2	08:18 HRS	PH
EXTRUSION			
SOLVENT			

SHEET NUMBER: 4

DATE: 21-Jul-13

SEAM NUMBER	SEAM SECTION * START POINT	SEAM SECTION * FINISH POINT	APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES DIGITAL SET WEDGE OR BARREL	MACHINE TEMPERATURES INDICATOR WEDGE OR BARREL	APPROX. LENGTH WELDED (M)	DESTR. NUMBER	CHK'D BY	REMARKS	NON-DESTRUCTIVE TEST DATE	NON-DESTRUCTIVE CHECKED BY
28 / 29	WEOS TO EEOS		13:15	3C	PH	45%	830	830	57.3		PH		21-Jul-13	
19 / TIE-IN	NEOS TO SEOS		13:28	3C	PH	45%	830	830	48.8		PH		21-Jul-13	
/														
/														
/														
/														
/														
/														
/														
/														
/														
							DAILY TOTAL		346.3					

* *REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR, OR A POINT LOCATION ON THE SEAM.*

SUBMITTED BY: PH

DATE: 21-Jul-13

LAYFIELD

GEOMEMBRANE DEFECT / REPAIR LOG

PROJECT NUMBER: 14C - 091
PROJECT TITLE: Baffinland MRP Milne Port Fuel Upgrade
OWNER: Nuna Logistics
CONTRACTOR: Nuna Logistcis
LOCATION: Baffinland NU
SHEET NUMBER: 1

DEFECT CODE	LOG DATE	DEFECT LOCATION		DEFECT TYPE	REPAIR TYPE	WELD TECH.		REPAIR DATE	REMARKS **	TEST DATE	CHECKED BY
		SEAM OR PANEL NO.	DEFECT LOCATION DESCRIPTION								
1 A	20-Jul-13	2,3 / 4,5	4.8 mts Seam 2-3 NEOS TO SEOS	T	G & W	RR		21-Jul-13		21-Jul-13	YE
1 B	20-Jul-13	1 / 2,4	9.11 mts Seam 1-Tie-In NEOS TO SEOS	T	G & W	RR		21-Jul-13			
1 C	20-Jul-13	6 /	2.13 mts Seam 4-6 WEOS TO EEOS 0.3 m S	MD	G & W	RR		21-Jul-13			
1 D	20-Jul-13	1 / 6,7	4.7 mts S from 1B	T	G & W	RR		21-Jul-13			
1 E	20-Jul-13	7 /	1.37 mts S from 1D	MD	G & W	RR		21-Jul-13			
1 F	20-Jul-13	7 /	2.44mts S, 1.22 mts E from 1D	MD	G & W	RR		21-Jul-13			
1 G	20-Jul-13	1 / 7,8	4.7 mts S from 1D	T	G & W	RR		21-Jul-13			
1 H	20-Jul-13	1 / 8,9	4.7 mts S from 1G	T	G & W	RR		21-Jul-13			
1 I	20-Jul-13	1 / 9,10	4.7 mts S from 1H	T	G & W	RR		21-Jul-13			
1 J	20-Jul-13	1 / 10, 11	4.7 mts S from 1I	T	G & W	RR		21-Jul-13			
1 K	20-Jul-13	1 / 11,12	4.7 mts S from 1J	T	G & W	RR		21-Jul-13			
1 L	20-Jul-13	1 / 12,13	4.7 mts S from 1K	T	P, G & W	RR		21-Jul-13			
1 M	20-Jul-13	14 / 15,16	34.44 mts Seam 14-15,16 NEOS TO SEOS	T	G & W	RR		21-Jul-13			
1 N	20-Jul-13	15 /	2.41 mts E from 1Q	MD	G & W	RR		21-Jul-13			
1 O	20-Jul-13	16 /	2.13 mts E, 0.45 mts N from 1Q	MD	G & W	RR		21-Jul-13			
1 P	20-Jul-13	16 /	1.85 mts E, 0.18 mts N from 1Q	MD	G & W	RR		21-Jul-13			
1 Q	21-Jul-13	17 / 15,16	34.44 mts Seam 17-15,16 NEOS TO SEOS	T	G & W	RR		21-Jul-13			
1 R	20-Jul-13	16 /	7.49 mts N, 0.15 mts W from 1M	MD	G & W	RR		21-Jul-13			
1 S	20-Jul-13	16 /	9.65 mts N, 0.15 mts W from 1M	MD	G & W	RR		21-Jul-13			
1 T	20-Jul-13	16 /	18.49 mts N, 0.55 mts W from 1M	MD	G & W	RR		21-Jul-13			

DEFECT TYPE: AD - ANIMAL RELATED DAMAGE; B - UNDISPERSED RESIN BEAD; BO - FUSION WELDER BURN; BS - BOOT/SKIRT FROM FML PENETRATION; CO - CHANGE OF OVERLAP; CR - CREASE; D - INSTALLATION DAMAGE; DS-# - DESTRUCTIVE TEST NUMBER; EE - EARTHWORK EQUIPMENT DAMAGE; EXT - EXTENSION; FM - FISHMOUTH; FS - FAILED SEAM LENGTH; FTS - FIELD TEST STRIP; HT - HEAT TACK BURN; IO - INSUFFICIENT OVERLAP (UNDER SPEC.); MD - MANUFACTURER/DELIVERY DAMAGE; PT - PRESSURE TEST CUT; SI - SOIL SURFACE IRREGULARITY; SL - SLAG ON TEXTURED SHEET; T - THREE PANEL INTERSECTION; VL - VACUUM TEST LEAK; WR - WRINKLE; WS - WELDER RESTART; OTHER:

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND/WELD

PASSING TRIAL SEAMS		
NO.	TIME	TECH ID.
TX-1	12:18	RR

** COLUMNS TO BE USED BY THE PROJECT SUPERVISOR OR LEAD TECHNICIAN ONLY.

SUBMITTED BY: PH
DATE: 21-Jul-13

LAYFIELD

GEOMEMBRANE DEFECT / REPAIR LOG

PROJECT NUMBER: 14C - 091
PROJECT TITLE: Baffinland MRP Milne Port Fuel Upgrade
OWNER: Nuna Logistics
CONTRACTOR: Nuna Logistcis
LOCATION: Baffinland NU
SHEET NUMBER: 2

DEFECT CODE	LOG DATE	DEFECT LOCATION		DEFECT TYPE	REPAIR TYPE	WELD TECH.		REPAIR DATE	REMARKS **	TEST DATE	CHECKED BY
		SEAM OR PANEL NO.	DEFECT LOCATION DESCRIPTION								
2 A	20-Jul-13	16 /	20.30 mts N 0.28 mts E from 1Q	MD	G & W	RR		21-Jul-13		21-Jul-13	YE
2 B	20-Jul-13	16 /	9.60 mts N 0.40 mts E from 1Q	MD	G & W	RR		21-Jul-13			
2 C	21-Jul-13	19 / 20, 21	4.8 mts NEOS TO SEOS Seam 19-Tie In	T	G & W	RR		21-Jul-13			
2 D	21-Jul-13	19 / 21,22	4.7 mts S from 2C	T	G & W	RR		21-Jul-13			
2 E	21-Jul-13	19 / 22,23	4.7 mts S from 2D	T	G & W	RR		21-Jul-13			
2 F	21-Jul-13	23 /	1.11 mts S, 1.06 mts W from 2E	MD	G & W	RR		21-Jul-13			
2 G	21-Jul-13	23 /	1.29 mts S from 2F	MD	G & W	RR		21-Jul-13			
2 H	21-Jul-13	19 / 23,24	4.7 mts S from 2E	T	G & W	RR		21-Jul-13			
2 I	21-Jul-13	19 / 24,25	4.7 mts S from 2H	T	G & W	RR		21-Jul-13			
2 J	21-Jul-13	19 / 25,26	4.7 mts S from 2I	T	G & W	RR		21-Jul-13			
2 K	21-Jul-13	19 / 26,27	4.7 mts S from 2J	T	G & W	RR		21-Jul-13			
2 L	21-Jul-13	19 / 27,28	4.7 mts S from 2K	T	G & W	RR		21-Jul-13			
2 M	21-Jul-13	19 / 28,29	4.7 mts S from 2L	T	G & W	RR		21-Jul-13			
2 N	21-Jul-13	23 /	2.21 mts W from 2F	MD	G & W	RR		21-Jul-13			
2 O		/									
2 P		/									
2 Q		/									
2 R		/									
2 S		/									
2 T		/									

DEFECT TYPE: AD - ANIMAL RELATED DAMAGE; B - UNDISPERSED RESIN BEAD; BO - FUSION WELDER BURN; BS - BOOT/SKIRT FROM FML PENETRATION; CO - CHANGE OF OVERLAP; CR - CREASE; D - INSTALLATION DAMAGE; DS# - DESTRUCTIVE TEST NUMBER; EM - EARTHWORK EQUIPMENT DAMAGE; EXT - EXTENSION; FM - FISHMOUTH; FS - FAILED SEAM LENGTH; FTS - FIELD TEST STRIP; HT - HEAT TACK BURN; IO - INSUFFICIENT OVERLAP (UNDER SPEC.); MD - MANUFACTURER/DELIVERY DAMAGE; PT - PRESSURE TEST CUT; SI - SOIL SURFACE IRREGULARITY; SL - SLAG ON TEXTURED SHEET; T - THREE PANEL INTERSECTION; VL - VACUUM TEST LEAK; WR - WRINKLE; WS - WELDER RESTART; OTHER:

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND/WELD

PASSING TRIAL SEAMS		
NO.	TIME	TECH ID.
TX-1	12:18	RR

** COLUMNS TO BE USED BY THE PROJECT SUPERVISOR OR LEAD TECHNICIAN ONLY.

SUBMITTED BY: PH
DATE: 21-Jul-13

LAYFIELD GEOMEMBRANE VACUUM / AIR LANCE TEST LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinland NU

VACUUM BOX _____ **AIR LANCE** X **SHEET NUMBER:** 1

SEAMS									REPAIRS					
SEAM NUMBER	SEAM SECTION * FROM	TO	TEST DATE	TECH ID	DEFECTS **	COMPLETE NO YES	CHK'D BY	REMARKS **	DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	CHK'D BY	REMARKS **
2 / 3	SEOS	NEOS	21-Jul-13	PH					1 A					
4 / 5	EEOS	WEOS	21-Jul-13	PH					1 B					
4 / 6	EEOS	WEOS	21-Jul-13	PH					1 C					
6 / 7	EEOS	WEOS	21-Jul-13	PH					1 D					
2,3 / 4,5	NEEOS	SWEOS	21-Jul-13	PH					1 E					
7 / 8	EEOS	WEOS	21-Jul-13	PH					1 F					
8 / 9	EEOS	WEOS	21-Jul-13	PH					1 G					
9 / 10	EEOS	WEOS	21-Jul-13	PH					1 H					
10 / 11	EEOS	WEOS	21-Jul-13	PH					1 I					
11 / 12	EEOS	WEOS	21-Jul-13	PH					1 J					
12 / 13	EEOS	WEOS	21-Jul-13	PH					1 K					
1 / TIE	SEOS	NEOS	21-Jul-13	PH					1 L					
1 / 14	SEOS	NEOS	21-Jul-13	PH					1 M					
15 / 16	EEOS	WEOS	21-Jul-13	PH					1 N					
14 / 15,1	SEOS	NEOS	21-Jul-13	PH					1 O					
15,16 / 17	SEOS	NEOS	21-Jul-13	PH					1 P					
17 / 18	SEOS	NEOS	21-Jul-13	PH					1 Q					
18 / 19	SEOS	NEOS	21-Jul-13	PH					1 R					
20 / 21	EEOS	WEOS	21-Jul-13	PH					1 S					
21 / 22	EEOS	WEOS	21-Jul-13	PH					1 T					

* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM

** RECORD QUANTITY OF LEAKS DETECTED AND REFERENCE NEW DEFECT CODE IN REMARKS

LS FORM 6

LAYFIELD ENVIRONMENTAL SYSTEMS

SUBMITTED BY: _____

DATE: _____

LAYFIELD CRANE VACUUM / AIR LANCE TEST LOG

PROJECT NUMBER: 14C - 091 **PROJECT TITLE:** Baffinland MRP Milne Port Fuel Upgrade

OWNER: Nuna Logistics **CONTRACTOR:** Nuna Logistics

LOCATION: Baffinland NU

VACUUM BOX _____ **AIR LANCE** X **SHEET NUMBER:** 2

SEAMS									REPAIRS					
SEAM NUMBER	SEAM SECTION * FROM	TO	TEST DATE	TECH ID	DEFECTS **	COMPLETE NO YES	CHK'D BY	REMARKS **	DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	CHK'D BY	REMARKS **
22 / 23	EEOS -	WEOS	21-Jul-13	PH					2 A					
23 / 24	EEOS -	WEOS	21-Jul-13	PH					2 B					
24 / 25	EEOS -	WEOS	21-Jul-13	PH					2 C					
25 / 26	EEOS -	WEOS	21-Jul-13	PH					2 D					
26 / 27	EEOS -	WEOS	21-Jul-13	PH					2 E					
27 / 28	EEOS -	WEOS	21-Jul-13	PH					2 F					
28 / 29	WEOS -	EEOS	21-Jul-13	PH					2 G					
19 / TIE-	NEOS -	SEOS	21-Jul-13	PH					2 H					
/	-								2 I					
/	-								2 J					
/	-								2 K					
/	-								2 L					
/	-								2 M					
/	-								2 N					
/	-								2 O					
/	-								2 P					
/	-								2 Q					
/	-								2 R					
/	-								2 S					
/	-								2 T					

* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER. OR A POINT LOCATION ON THE SEAM

** RECORD QUANTITY OF LEAKS DETECTED AND REFERENCE NEW DEFECT CODE IN REMARKS

SUBMITTED BY: _____

DATE: _____

LAYFIELD

GEOMEMBRANE DESTRUCTIVE TEST REPORT

PROJECT NUMBER: 14C - 091
PROJECT TITLE: Baffinland MRP Miln Port Fuel Upgrade
OWNER: Nuna Logistics
CONTRACTOR: Nuna Logistics
LOCATION: Baffinland NU
SHEET NUMBER:

DESTRUCTIVE TEST NUMBER*: DT-1
TEST DATE: 22-Jul-13
SEAM NUMBER: 1-2
ARCHIVE _____ **LAYFIELD** _____ **OWNER** _____ **ENGINEER**
SAMPLE LOCATION: 48.76 mts NEOS TIE-IN
3RD PARTY _____ **YES** _____ **NO** _____ **WHO?**
DATE SEAMED / SAMPLED: 20-Jul-13 -
DATE FORWARDED TO LAB _____
TYPE OF SEAM: Fusion
DATE LAB TEST RESULTS REC'D _____

FIELD TEST RESULTS (units = lbf. / in. width = ppi)

SHEAR STRENGTH			PEEL ADHESION				
				INSIDE SEAM		OUTSIDE SEAM	
SPECIMEN NUMBER	SEAM STRENGTH	** LOCUS OF BREAK CODE	SPECIMEN NUMBER	ADHESION STRENGTH	LOCUS OF BREAK CODE	ADHESION STRENGTH	** LOCUS OF BREAK CODE
1	126	SE1	2	110	SE1	112	SE1
3	123	SE1	4	119	SE1	107	SE1
5	124	SE1	6	108	SE1	105	SE1
7	126	SE1	8	110	SE1	102	SE1
9	129	SE1	10	110	SE1	105	SE1
11			12				

* DESTRUCTIVE TEST NUMBERS SHOULD BE SEQUENTIAL AND ARE TO BE PREFIXED BY EITHER DT (FUSION), DX (EXTRUSION) OR DS (SOLVENT).

** REFER TO LOCUS OF BREAK CODE DIRECTORIES PROVIDED FOR UNSUPPORTED AND SUPPORTED MATERIALS.

LPL: PASS _____ FAIL _____

3RD PARTY / LAB: PASS _____ FAIL _____

NOTES: _____

CHECKED BY: PH

DATE: 22-Jul-13

LS FORM 8 (OPTIONAL)

LAYFIELD ENVIRONMENTAL SYSTEMS

LAYFIELD

GEOMEMBRANE DESTRUCTIVE TEST REPORT

PROJECT NUMBER: 14C - 091
PROJECT TITLE: Baffinland MRP Miln Port Fuel Upgrade
OWNER: Nuna Logistics
CONTRACTOR: Nuna Logistics
LOCATION: Baffinland NU
SHEET NUMBER:

DESTRUCTIVE TEST NUMBER*: DT-2
TEST DATE: 22-Jul-13
SEAM NUMBER: 15,16-17
ARCHIVE _____ **LAYFIELD** _____ **OWNER** _____ **ENGINEER**
SAMPLE LOCATION: 57.3 mts NEOS
3RD PARTY _____ **YES** _____ **NO** _____ **WHO?**
DATE SEAMED / SAMPLED: 21-Jul-13 -
DATE FORWARDED TO LAB
TYPE OF SEAM: Fusion
DATE LAB TEST RESULTS REC'D

FIELD TEST RESULTS (units = lbf. / in. width = ppi)

SHEAR STRENGTH			PEEL ADHESION				
				INSIDE SEAM		OUTSIDE SEAM	
SPECIMEN NUMBER	SEAM STRENGTH	** LOCUS OF BREAK CODE	SPECIMEN NUMBER	ADHESION STRENGTH	LOCUS OF BREAK CODE	ADHESION STRENGTH	** LOCUS OF BREAK CODE
1	123	SE1	2	111	SE1	109	SE1
3	125	SE1	4	115	SE1	117	SE1
5	126	SE1	6	107	SE1	98	SE1
7	119	SE1	8	108	SE1	114	SE1
9	116	SE1	10	109	SE1	100	SE1
11			12				

* DESTRUCTIVE TEST NUMBERS SHOULD BE SEQUENTIAL AND ARE TO BE PREFIXED BY EITHER DT (FUSION), DX (EXTRUSION) OR DS (SOLVENT).

** REFER TO LOCUS OF BREAK CODE DIRECTORIES PROVIDED FOR UNSUPPORTED AND SUPPORTED MATERIALS.

LPL: PASS _____ FAIL _____

3RD PARTY / LAB: PASS _____ FAIL _____

NOTES: _____

CHECKED BY: PH

DATE: 22-Jul-13

LAYFIELD

GEOMEMBRANE DESTRUCTIVE TEST REPORT

PROJECT NUMBER: 14C - 091
PROJECT TITLE: Baffinland MRP Miln Port Fuel Upgrade
OWNER: Nuna Logistics
CONTRACTOR: Nuna Logistics
LOCATION: Baffinland NU
SHEET NUMBER:

DESTRUCTIVE TEST NUMBER*: DT-3
TEST DATE: 22-Jul-13
SEAM NUMBER: 25-24
ARCHIVE _____ **LAYFIELD** _____ **OWNER** _____ **ENGINEER**
SAMPLE LOCATION: 10.63 mts WEOS
3RD PARTY _____ **YES** _____ **NO** _____ **WHO?**
DATE SEAMED / SAMPLED: 21-Jul-13 -
DATE FORWARDED TO LAB
TYPE OF SEAM: Fusion
DATE LAB TEST RESULTS REC'D

FIELD TEST RESULTS (units = lbf. / in. width = ppi)

SHEAR STRENGTH			PEEL ADHESION				
				INSIDE SEAM		OUTSIDE SEAM	
SPECIMEN NUMBER	SEAM STRENGTH	** LOCUS OF BREAK CODE	SPECIMEN NUMBER	ADHESION STRENGTH	LOCUS OF BREAK CODE	ADHESION STRENGTH	** LOCUS OF BREAK CODE
1	121	SE1	2	120	SE1	115	SE1
3	122	SE1	4	113	SE1	109	SE1
5	131	SE1	6	114	SE1	117	SE1
7	128	SE1	8	110	SE1	103	SE1
9	130	SE1	10	103	SE1	109	SE1
11			12				

* DESTRUCTIVE TEST NUMBERS SHOULD BE SEQUENTIAL AND ARE TO BE PREFIXED BY EITHER DT (FUSION), DX (EXTRUSION) OR DS (SOLVENT).

** REFER TO LOCUS OF BREAK CODE DIRECTORIES PROVIDED FOR UNSUPPORTED AND SUPPORTED MATERIALS.

LPL: PASS _____ FAIL _____

3RD PARTY / LAB: PASS _____ FAIL _____

NOTES: _____

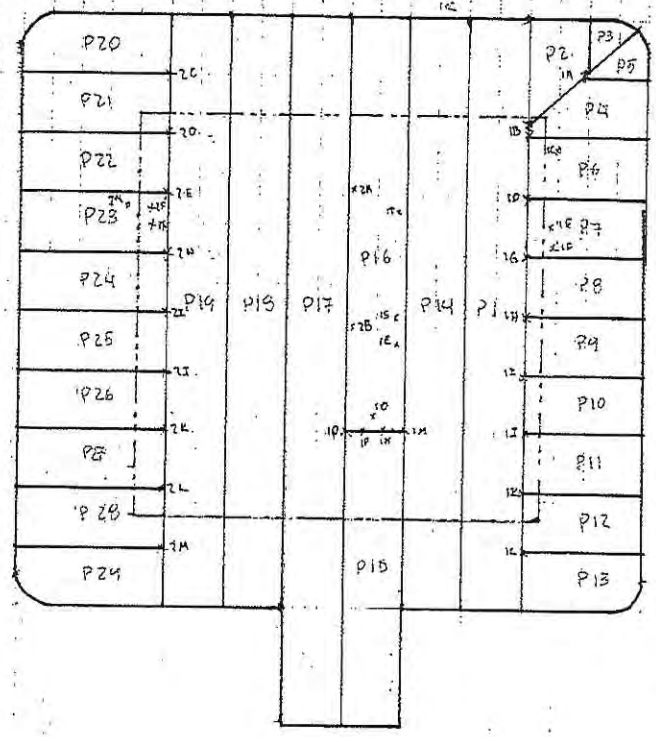
CHECKED BY: PH

DATE: 22-Jul-13

FILE NAME: X:/ENVIROMENTAL SYSTEMS/2006/

LS-04-QF-001

NO.	REVISIONS	DATE (MM/DD/YY)	BY



NOTES
EFFLUENT POND

LAYFIELD
ENVIRONMENTAL SYSTEMS LTD.

ENVIROLINER
60-60

LEGEND

— — —	EXTENT OF LINER
— · — · —	TOE OF SLOPE
———	LINER FIELD SEAM
xxx	EXTRUSION WELDING
△	PATCH
P2	PANEL NUMBER
1A	REPAIR NUMBER

Code No.	PROJECT No. 14C-091
DWG: OF	SCALE:
DWN: CHD:	APP'D:
DATE:	REVISION:

LAYFIELD

CERTIFICATE OF FINAL INSPECTION AND ACCEPTANCE

PROJECT NAME: Baffinland MRP Milne Port Fuel Upgrade Phase 2 "Effluent Pond"
PROJECT NUMBER: 146-091 **DATE:** 21-July 2013
OWNER: Nuna Logistics
LOCATION: Baffinland NU

SCOPE OF INSTALLATION(S): THE WORK
Installation of Geotextile LP 12 under lug and 60-60 EL with all testing and repairs 100% done.

2454 m².

Part 1 – LAYFIELD ENVIRONMENTAL SYSTEMS LTD.

I, Yonatan Espindola, a duly appointed representative of Layfield Environmental Systems Ltd. (LESL), have visually observed the installations (as outlined above), and have found the Work to be complete and free of defects and declare that the Work was completed in accordance with the project specifications, Layfield Environmental Systems' QC program and the terms and conditions of the contract.

Layfield Environmental Systems Representative:
Name: Yonatan Espindola
Title: Supervisor
Date: 21 July 2013 Signature: [signature]

Part 2 – OWNER (or Representative)

I, Mike Price, a duly appointed representative of Nuna East, do hereby take over and accept the installation(s) described above, and confirm that the work has been completed in accordance with the project specifications and the terms of the conditions of the contract.

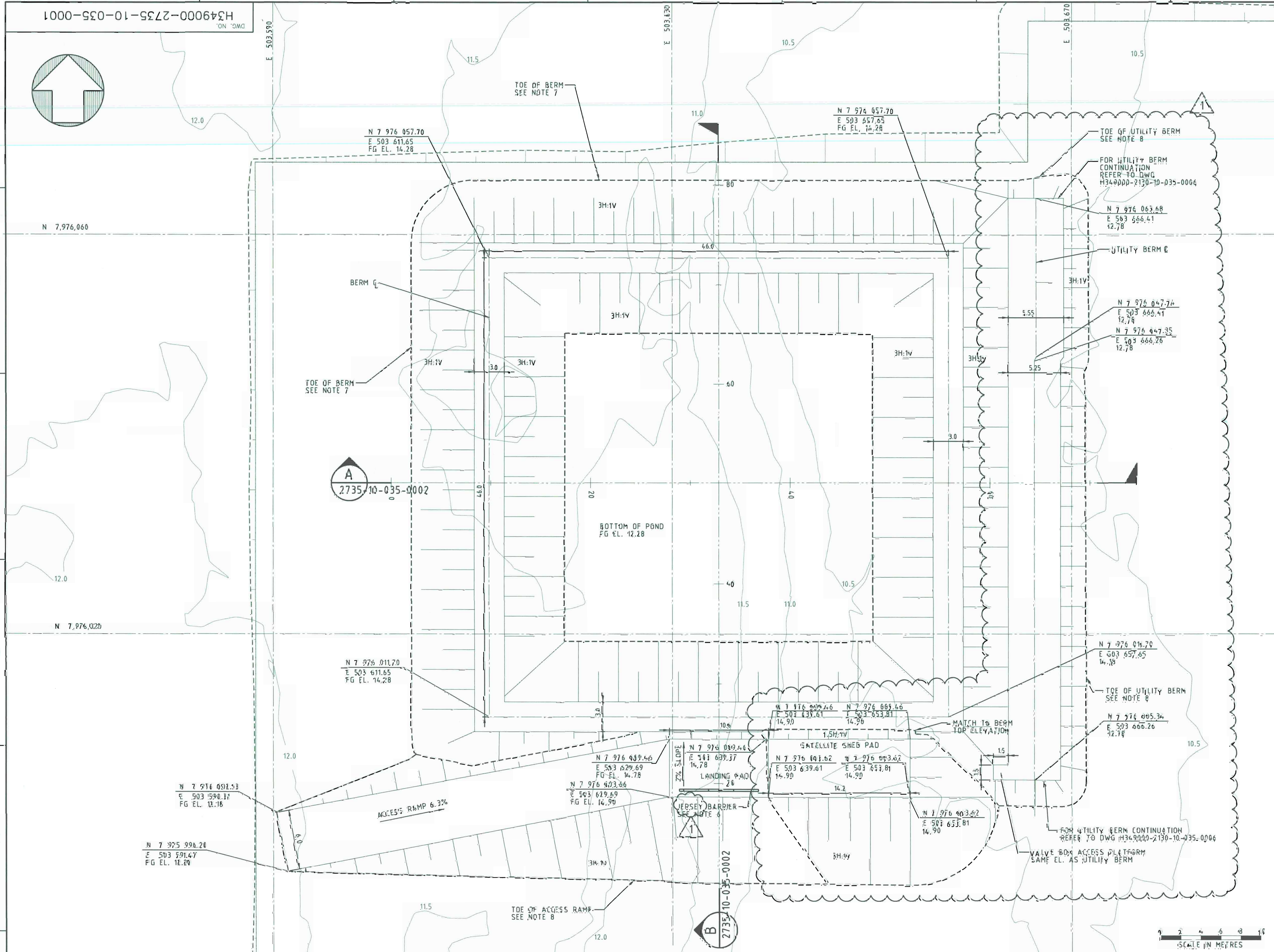
I have evaluated and measured the work together with the Layfield Environmental Systems representative, and agree that the measurements shown are both true and correct, and that the installation has met our approval.

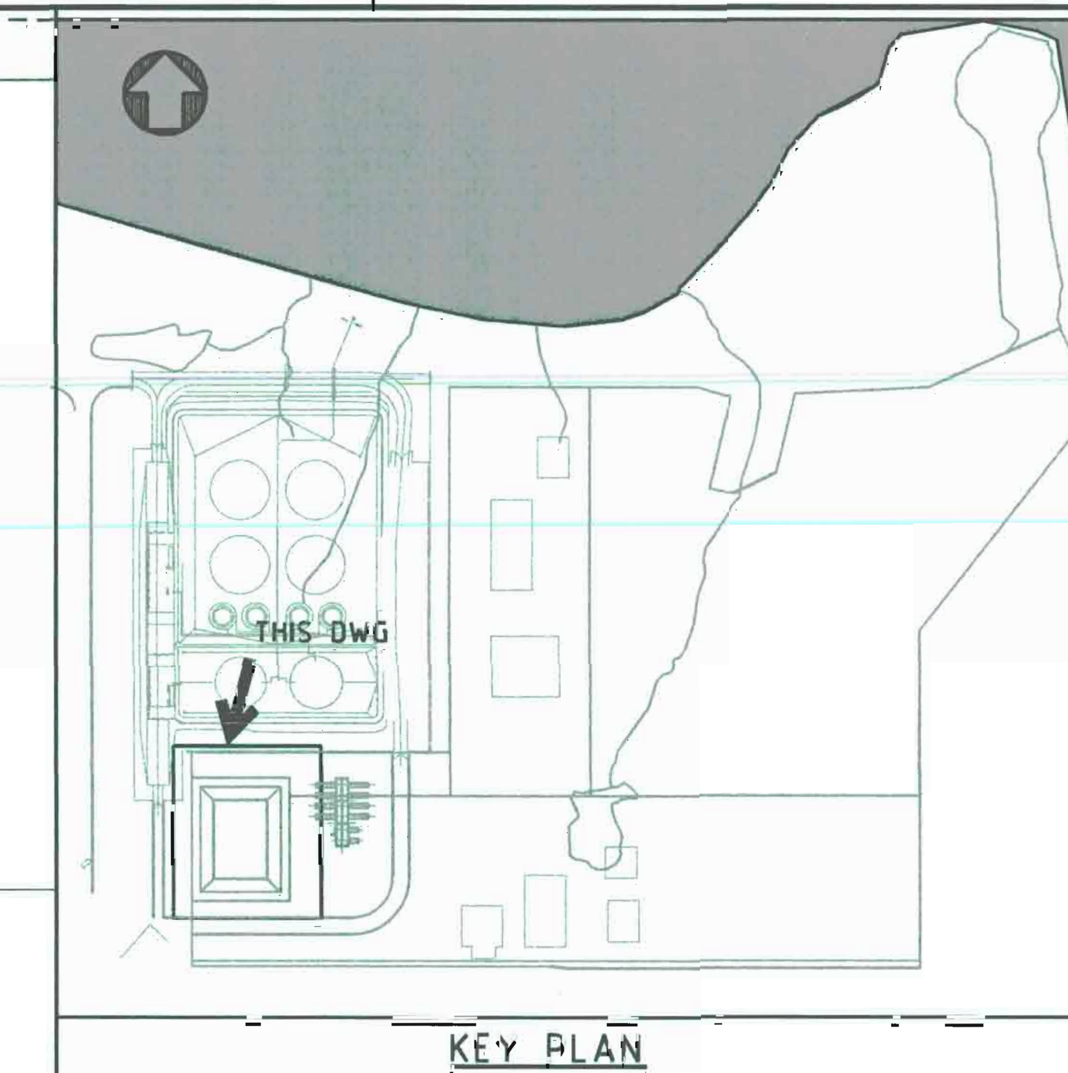
Owners Representative:
Name: Mike Price
Title: Project Coordinator
Company: Nuna East
Date: 07/22/2013 Signature: [signature]

Comments:

Appendix B
As Built Drawings

H349000-2735-10-035-0001





LEGEND

FILL SLOPE

EXISTING GROUND CONTOURS

JERSEY BARRIERS

CROSS SECTION DISTANCE

NOTE:

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 0.5 METRES.
4. FOR UTILITY BERM CIVIL WORKS DETAILS, REFER TO DRAWING H349000-1000-10-014-0006.
5. FOR UTILITY BERM MECHANICAL & ELECTRICAL REQUIREMENTS, REFER TO DRAWING H349000-2000-00-014-0005/0006.
6. JERSEY BARRIER: HY-GRADE PRECAST CONCRETE J-J HOOK CONCRETE BARRIER, LENGTH 4.0m X HEIGHT 0.9m, OR EQUIVALENT.
7. TOE OF BERM MATCH TO FINISHED GRADE EL. 12.18. REFER TO DRAWINGS H349000-2130-10-035-0001 AND H349000-2735-10-035-0002
8. TOE OF UTILITY BERM / ACCESS RAMP MATCH TO FINISHED GRADE. REFER TO DRAWINGS H349000-2130-10-035-0001 AND H349000-2735-10-035-0002

AS BUILT DRAWING

I HEREBY VERIFY THAT THIS DRAWING ACCURATELY REFLECTS THE "AS BUILT" FIELD CONDITION IN CONJUCTION WITH THE SURVEY AS-BUILT DATA.

AS BUILT BY: Bradford Watkin SIGN: [signature]

DATE: Dec 17,2013 COMPANY: Nuna East Ltd.

DRAWING NO.	DRAWING TITLE
H349000-2130-10-035-0001	MILNE PORT-LAYDOWN AREA, CAMP & SERVICES BUILDINGS-EARTHWORKS & DRAINAGE - PLAN
H349000-2735-10-035-0002	MILNE PORT - OFF-SET EFFLUENT POND (RWSP) - SECTIONS & DETAILS

REFERENCE DRAWINGS

PERMIT TO PRACTICE HATCH LTD.
Signature [signature]
Date 13 Sep 13
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
1	UTILITY BERM AND SATELLITE SHED PAD ADDED	AV	KF	SH	2013-09-13

REVISIONS

REGISTERED PROFESSIONAL ENGINEER M. M. S. HASSAN LICENSEE 13 Sep 13 NT/NU

REV.	ISSUE FOR	AUTH.	BY	DATE
1	CONSTRUCTION	SH	AV	2013-09-13
0	CONSTRUCTION	SH	AV	2013-05-22

ISSUE AUTHORIZATION

HATCH

DESIGNED BY A. SAHELI DATE 2013-03-08	DRAWN BY A. VALENCIA DATE 2013-03-08
CHECKED BY K. FALLAHI DATE 2013-05-22	DISCIP. ENGR. S. HASSAN DATE 2013-05-22
PROJ. DES. COORD. T. THERRELL DATE 2013-05-22	PROJ. ENGR. J. CLELAND DATE 2013-05-22
PROJ. MGR. S. PERRY DATE 2013-05-22	

Baffinland

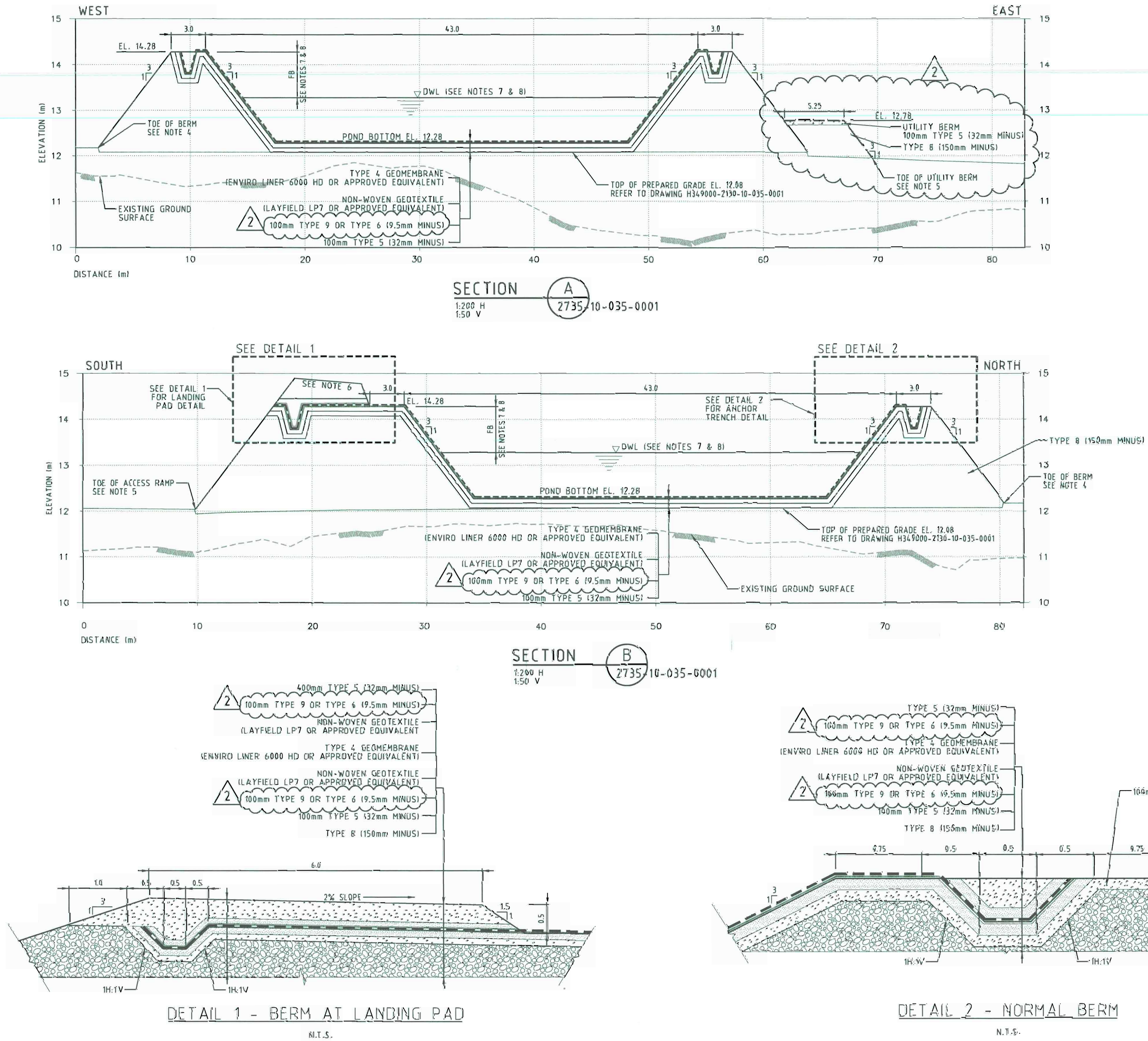
MARY RIVER PROJECT

MILNE PORT
OFF-SPEC EFFLUENT POND (PWSP)
PLAN

SCALE 1:200 OR AS NOTED | DWG. NO. H349000-2735-10-035-0001 | REV. 1

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

DWG. NO. H349000-2735-10-035-0002



LEGEND

DWL	DESIGN WATER LEVEL
FB	FREEBOARD

NOTES:

1. TOPOGRAPHY PROVIDED BY TERRAPOINT CANADA INC.
2. ALL DIMENSIONS AND ELEVATIONS SHOWN ARE IN METRES, UNLESS NOTED OTHERWISE.
3. FOR UTILITY BERM MECHANICAL & ELECTRICAL REQUIREMENTS, REFER TO DRAWING H349000-2000-00-914-0005/0006.
4. TOE OF BERM MATCH TO FINISHED GRADE EL. 12.18. REFER TO DRAWING H349000-2130-10-035-0001 AND H349000-2735-10-035-0001.
5. TOE OF UTILITY BERM / ACCESS RAMP MATCH TO FINISHED GRADE. REFER TO DRAWING H349000-2130-10-035-0001 AND H349000-2735-10-035-0001.
6. JERSEY BARRIER: HY-GRADE PRECAST CONCRETE J-J HOOK CONCRETE BARRIER, LENGTH 4.0m X HEIGHT 0.9m, OR EQUIVALENT.
7. POND DESIGN CAPACITY IS 1080M3 WITH 1.0m OF FREEBOARD AND DWL EL. 13.28m.
8. POND MAXIMUM DESIGN CAPACITY (SUMMER USE) IS 2230M3 WITH 0.3m FREEBOARD AND DWL EL. 13.98m.

AS BUILT DRAWING

I HEREBY VERIFY THAT THIS DRAWING ACCURATELY REFLECTS THE "AS BUILT" FIELD CONDITION IN CONJUCTION WITH THE SURVEY AS-BUILT DATA.

AS BUILT BY: Bradford Watkin SIGN: [signature]

DATE: Dec 17,2013 COMPANY: Nuna East Ltd.

FOR CONSTRUCTION

DRAWING NO.	DRAWING TITLE
H349000-2735-10-035-0001	MILNE PORT-OFF-SPEC EFFLUENT POND (PWSP) -PLAN

REFERENCE DRAWINGS

PERMIT TO PRACTICE HATCH LTD. Signature [signature] Date 13 Sep. 13 PERMIT NUMBER: P 512 The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
2	UTILITY BERM SECTION "A" UPDATED AND LABELS FIXED	AV	KF	SH	2013-09-13
1	NOTES 7 & 8 AND DWL & FB ADDED, WCD DELETED FROM LEGEND	MM	KF	SH	2013-06-18

REVISIONS

PROFESSIONAL ENGINEER M. M. S. HASSAN LICENSEE 13 Sep 13 NT/NU

REV.	ISSUE FOR	AUTH. BY		DATE
2	CONSTRUCTION	SH	AV	2013-09-13
1	CONSTRUCTION	SH	MM	2013-06-18
0	CONSTRUCTION	SH	MM	2013-05-22

ISSUE AUTHORIZATION

HATCH

DESIGNED BY A. SAHELI DATE 2013-05-07	DRAWN BY M. MCDOUGALD DATE 2013-05-07
CHECKED BY K. FALLAHI DATE 2013-05-22	DISCIP. ENGR. S. HASSAN DATE 2013-05-22
PROJ. DES. COORD. T. THERTELL DATE 2013-05-22	PROJ. ENGR. J. CLELAND DATE 2013-05-22
PROJ. MGR. S. PERRY DATE 2013-05-22	

Baffinland

MARY RIVER PROJECT

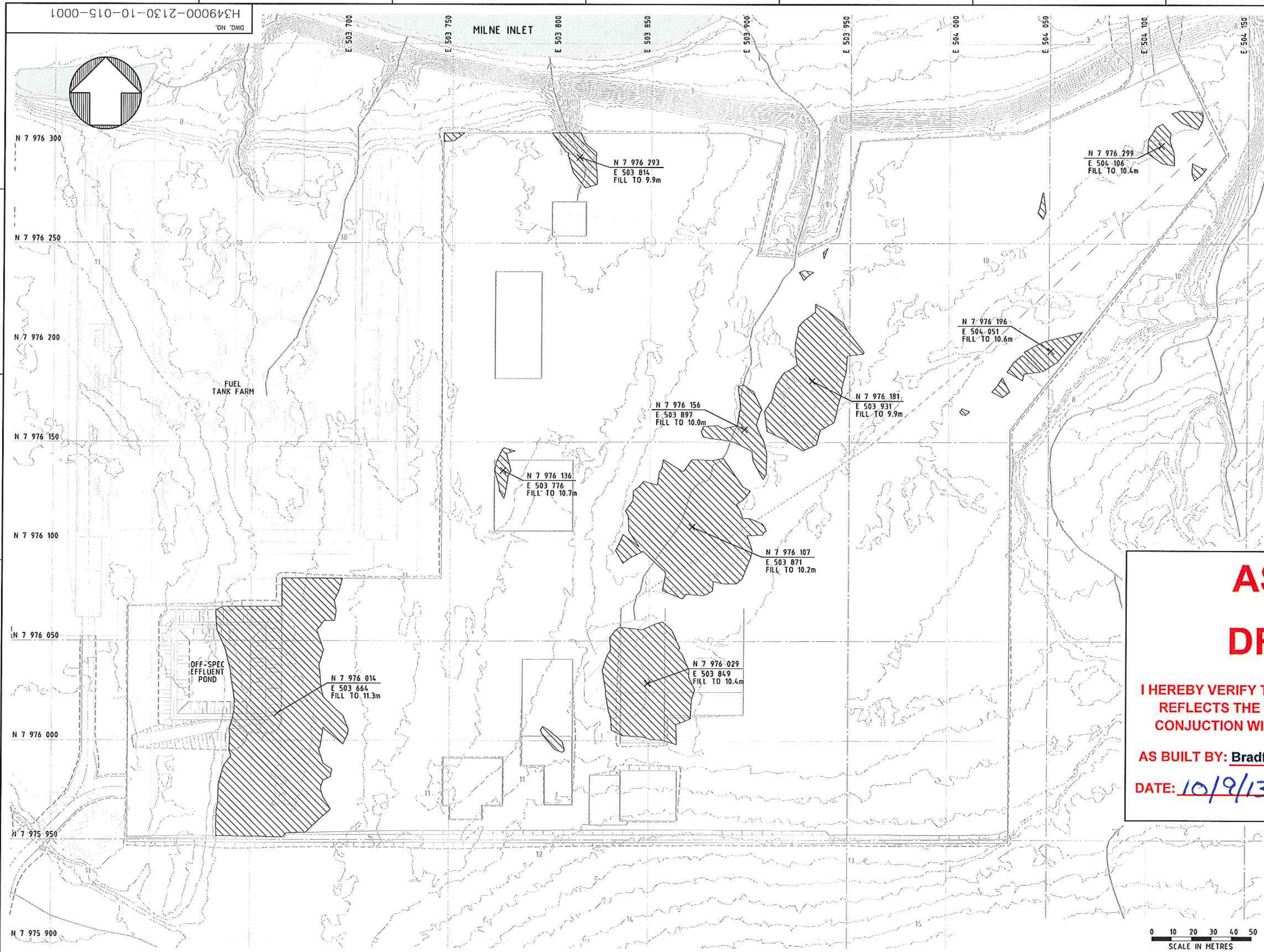
MILNE PORT
OFF-SPEC EFFLUENT POND (PWSP)
SECTIONS & DETAILS

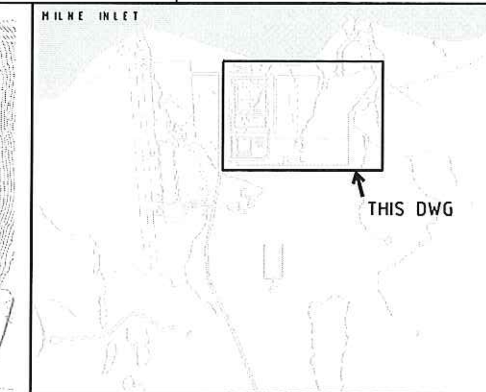
SCALE 1:200 OR AS NOTED | DWG. NO. H349000-2735-10-035-0002 | REV. 2

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

vale69806 13/09/2013 9:59:06 AM c:\pw_projectwise\vale69806\dms74793\H349000-2735-10-035-0002.dgn

DWG. NO. H349000-2130-10-015-0001





KEY PLAN

LEGEND:

- EXISTING GROUND CONTOURS
- EXISTING WATERBODY
- EXISTING DEPRESSION TO BE DEWATERED
- EXISTING STREAM
- RUN OF QUARRY FILL AREAS (APPROXIMATE)

AS BUILT DRAWING

I HEREBY VERIFY THAT THIS DRAWING ACCURATELY REFLECTS THE "AS BUILT" FIELD CONDITION IN CONJUCTION WITH THE SURVEY AS-BUILT DATA.

AS BUILT BY: Bradford Watkin SIGN: [signature]

DATE: 10/9/13 COMPANY: Nuna East Ltd.

NOTES:

1. TOPOGRAPHY PROVIDED BY TERRAPOINT CANADA INC.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 0.5 METRES.

DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS	

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
REVISIONS					

REV.	ISSUE FOR	AUTH. BY	DATE
0	APPROVED FOR USE	SH MM	2013-05-17
ISSUE AUTHORIZATION			

HATCH

DESIGNED BY M. MCDOUGALD DATE 2013-05-16	DRAWN BY M. MCDOUGALD DATE 2013-05-16
CHECKED BY A. VALENCIA DATE 2013-05-17	DISCIP. ENGR. S. HASSAN DATE 2013-05-17
PROJ. DES. COORD. T. THERTELL DATE 2013-05-17	PROJ. ENGR. J. CLELAND DATE 2013-05-17
PROJ. MGR. S. PERRY DATE 2013-05-17	

Baffinland

MARY RIVER PROJECT

MILNE PORT
LAYDOWN AREA, CAMP & SERVICES BUILDINGS
RUN OF QUARRY FILL AREAS

SCALE	DWG. NO.	REV.
1:1000 OR AS NOTED	H349000-2130-10-015-0001	0

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

c:\pw\projectwise\vole69806\dms47794\H349000-2130-10-015-0001.dgn 17/05/2013 1:08:22 PM Vole69806

Appendix C
Field Instruction NE-RFI-008

NUNA
NUNA EAST LTD

REQUEST FOR INFORMATION

RFI NUMBER	NE-RFI-008
ISSUE DATE (YY/MM/DD)	June 2nd, 2013
PRIORITY	H X M L
REQ'D RESPONSE DATE	June 4th, 2013

Baffinland Iron Mines

Subject:	Off-Spec Effluent Pond	Project Zone/Area:	South of Existing Tank Farm
Company:	Nuna East	Station/Location:	Milne
Attention:	James Cleland	Discipline:	Civil - Earthworks

AFE:		Specification Number:	
Related Drawings:	H349000-2735-10-035-0002	Related Documents:	

Related WBS Code		WBS Code Description:	

Information Request/Description of Issue/Approval Required:
The Effluent Pond calls for the base fill material and berms to be constructed of 150mm minus. The ROQ material that is being produced from the blasting consists of material ranging from 100mm – 300mm.
Proposed Corrective Action:
To allow the berms and base fill to be completed with the ROQ produced. The material would be selected specifically and approved by the client representative before being placed.
Originator: Nuna
Print: Kyle Kuntz *Sign:* *Date: June 2nd, 2013*

Cost Impact:	☒ No ☐ Yes	$		Summary Estimate
Detailed Estimate attached:	☒ No ☐ Yes			
Schedule Impact:	☒ No ☐ Yes	#		Number of Days
Source for Communication:	☐ Owner Change	☒ Clarification/Info		☐ Constructor Change
	☐ Vendor Change	☐ Designer Change		☐ Other

Note: RFI's are not authorized change documents and cannot be used to direct a change in contract requirements. If Hatch response on the RFI has cost and/or schedule effect, it is the contractor's responsibility to immediately advise Hatch Work undertaken without Hatch written authorization is at the contractor's risk and expense

Response

☒ Corrective Action Approved ☐ Correct as Follows:

NUNA
NUNA EAST LTD

REQUEST FOR INFORMATION

RFI NUMBER	NE-RFI-008
ISSUE DATE (YY/MM/DD)	June 2nd, 2013
PRIORITY	H X M L
REQ'D RESPONSE DATE	June 4th, 2013

Baffinland Iron Mines

Responsible Engineer:	J Cleland	4 July 2013
	Print:	*Sign:* *Date:*

Appendix D
Annual Geotechnical Information

ANNUAL GEOTECHNICAL INSPECTION
Baffinland Iron Mines Corporation
Mary River Project

Prepared for:

Mr. Dave McCann
Baffinland Iron Mines Corporation
2275 Upper Middle Road East, Suite 300
Oakville, Ontario L6H 0C3

Prepared by:

Mr. Barry H. Martin, P. Eng., MRAIC
Consulting Engineer and Architect
1499 Kraft Creek Road
Timmins, Ontario P4N 7C3

Reference 13-053
August 2013

Barry H. Martin, P. Eng., MRAIC
Consulting Engineer and Architect
1499 Kraft Creek Road
Timmins, Ontario P4N 7C3
705-268-5621 (tel)
705-360-3106 (cell)
barrymartin1499@gmail.com (e-mail)

August 31, 2013

Baffinland Iron Mines Corporation
2275 Upper Middle Road East, Suite 300
Oakville, Ontario L6H 0C3

Attention: Dave McCann
david.maccann@baffinland.com

RE: ANNUAL GEOTECHNICAL INSPECTION 2013-08-31
BAFFINLAND IRON MINES CORPORATION
OUR REFERENCE NO. 13-053

1.0 INTRODUCTION

Barry H. Martin Consulting Engineer and Architect completed the 6th annual water licence geotechnical inspection of the on-site containment structures at Baffinland Iron Mines Corporation Mary River Project.

The earthwork structures designed to carry water or waste were inspected in accordance with Dam Safety Guidelines 2007 and the solid waste disposal site, was inspected using similar guidelines set out.

The previous 5 annual water license geotechnical inspections were completed by Mr. Martin working on behalf of B. H. Martin Consultants Ltd and GENIVAR Inc. Mr. Martin was the design Engineer on all original structures.

The containment structures for the operation are located at two main campsites comprising the Mary River project being the Mary River site itself and the Milne Inlet site at the sea coast.

The soil structures reviewed are the following:

Mary River Mine Site

1. Bulk Fuel Storage Facility Containment
2. Generator Fuel Storage Facility Containment
3. Polishing Waste Stabilization Pond No. 1
4. Polishing Waste Stabilization Pond No.2 and No. 3 (Constructed as a 2 cell structure)
5. Helicopter Fuel Cell Containment.
6. Barrel Fuel Containment (Constructed as a 2 cell structure).
7. Stove Oil Storage
8. Enviro-Tank Storage (Constructed contiguous with hazardous waste storage and stove oil storage)
9. Hazardous Waste Storage
10. Jet Fuel Tank and Pump Containment
11. Solid Waste Disposal Site
12. Waste Oil Storage Containment

A site plan for the Mary River site showing most containment structures is attached.

Milne Inlet Site

1. Bulk Fuel Containment Facility
2. Polishing/Waste Stabilization Pond
3. Barrel Fuel Storage (Constructed as a 2 cell structure)
4. Hazardous Waste Storage (Constructed as a 2 cell structure)
5. Oil and Antifreeze Containment
6. Jet "A" Pump Containment
7. 5 M Litre Steel Fuel Storage Tank Containment which has now been expanded to contain 48.25m litres

8. New Effluent Pond to accommodate the new camp

This report presents the findings.

2.0 METHODOLOGY FOR INSPECTION

The geotechnical inspector was Mr. Barry H. Martin, P. Eng., who reviewed the sites on August 29, 30 and 31, 2013. The inspections were focused principally on the following aspects:

1. The structures were inspected for conformance with the design basis as presented in as-constructed and as-built drawings (provided in the first annual report).

2. The structures were specifically inspected for settlement, cracking and seepage through the berms.

3. The areas around the sites were examined for evidence of seepage.

   Construction drawings are attached for new structures.

   Photographs were taken to document observations made during the inspection and are attached.

3.01 MARY RIVER CAMP

3.01 General

There had not been a particularly large amount of rainfall in the month immediately preceding the inspection, although there had been a large amount of precipitation at the end of July.

Hence, it was expected that there would be some water in the containment dykes.

The weather at the time of the inspection was at freezing and minor snow flurries had occurred in the week preceding the inspection as well as during the inspection.

A monitoring surveillance program is in place to test storm water that does accumulate within the dykes. As required, water that does not meet water license effluent requirements is treated on site prior to release.

At the Bulk Fuel Storage Facility Containment , the water that collects within the dyke is treated at the end of the containment structure.

We report on the Waste Oil Storage Containment for the first time.

3.02 Bulk Fuel Storage Facility

General Conditions

The containment structure has not varied from its use as noted in the2009 report. Some bladders are empty and some bladders are currently full.

Stability

At the time of our review, the water had not been removed for a period from within the containment and water was ponding just above the level of the gravel within the bottom of the containment. There was still considerable factor of safety against failure of oil holding bladders within the dykes with the water level as it exists.

The structure was visually inspected for any signs of cracking or subsidence. There was no indication of any settlement seepage or cracking in the soil structures that formed the dykes. As well, there was no indication of seepage at the base of the structure around the exterior. The soil structure is considered to be stable in the present condition and is in conformance with the design basis for the facility.

There had been a considerable amount of precipitation prior to our inspection. The presence of the water in the gravel to just above the level of the top of the gravel is an indication of the integrity of the liner.

Capacity

There was a minor concern at the load-out end of the facility where the gravel ramps over the berm have worn down and some gravel from the ramps had migrated into the loading area at the end of the dyke.

Some grave was removed while we were on site to return this area to its design intent.

Recommendations

With the gravel removed, we have no further recommendations with respect to this structure.

3.03 Generator Fuel Storage Containment

General Conditions

The containment structure has not varied from its use since our 2010 annual inspection. At that time our recommendation was to limit the fuel contained in this containment facility to 77,376 litres.

There is currently one bladder in this containment facility that has a capacity when full of 120,000 litres. This bladder contains 77,376 litres when the bladder is 32" high. The guideline for Baffinland Iron Mines is to fill this bladder to no more than 76 cm (30") which represents 70,097 litres.

There is a sign posted to limit the bladder height at 30".

At the time of our visit on August 29, 2013, the bladder height was measured at 20". There was a small amount of water ponding in the bottom of the containment at the time of our review.

Stability

The structure was visually inspected for any signs of subsidence or cracking and no such indications were noted. There was no sign of seepage at the base of the structure noted. The soil structure is considered to be stable in its present condition and is in conformance with our design principles.

Recommendation

We recommended that the small amount of water ponding above the bottom of the containment be removed by creating a sump in the gravel and pumping out the water to below the gravel surface. This was done while we were on site.

We recommend that Baffinland Iron Mines continue to control the fuel in the bladder at a height of 30".

3.04 Polishing/Waste Stabilization Pond No. 1

General Conditions

PWSP No. 1 continues to be utilized as a holding facility for sewage plant effluent that does not meet water effluent quality criteria.

Currently the pond is be used primarily as a repository for sewage sludge that is periodically removed from the RBC.
The supernatant from PWSP No. 1 is periodically decanted to PWSPs Nos. 2 and 3 where it is tested and treated as required to meet Water Licence effluent requirements.

At the time of our visit there was considerable freeboard to accommodate further sewage and the structure readily conforms to its design intent.

Stability

Our review of the area around the pond at the base of the slopes showed no sign of seepage and hence we conclude that the liner has been effective in containing sewage and there are no tears or ruptures in the membrane, excepting some minor tears from past activity at the top of the dyke well above the allowable effluent level in the structure in the horizontal portion of the membrane.

A review of the top of the dyke showed no indication of cracking or settlement which would indicate stresses within the structure.

Most tears that had occurred in the liner on the top of the dyke have been patched during the period between reviews in 2008 and 2009 and are holding well. As well, there are no signs of weather related deterioration of the liner where it is exposed.

Monitoring points have been set up on the top of the dyke and have been monitored since 2009. Settlements of approximately 26 cm have occurred since that time. These settlements have not led to any stress cracks in the structure. These settlements are an indication of consolidation in the berm structure and the active layer beneath the dyke and are not considered to be of any concern.

There appears to be no sign of erosion of the dykes, even with the large amount of precipitation that occurred this current summer season.

Recommendations

We recommend that monitoring of the top of the berm continue on an annual basis through 2014. With the excellent condition of the dyke construction, we see no reason to complete this function other than annually prior to the next inspection.

3.05 Polishing Ponds/Waste Stabilization Ponds #2 and #3

General Conditions

This structure was designed and constructed as a 2 cell structure.

Treated sewage effluent from the RBC is currently discharged to PWSPs Nos. 2 and 3. The treated effluent is tested for Water Licence effluent requirements, treated if necessary, and discharged to the environment.

At the time of our visit there was considerable freeboard to accommodate further sewage and the structure readily conforms to its design intent.

Stability

Our review of the area around the pond at the base of the slopes showed no sign of seepage and hence we conclude that the liner has been effective in containing the sewage and there are no tears or ruptures in the membrane.

Longitudinal cracking which appeared in the dykes of PWSP#3 due to the melt of permafrost wedges in 2009 has not reoccurred and we consider this structure to be stable in its present condition.

Monitoring points have been set upon the top of the dyke and have been monitored since 2009. Settlements in the order of up to 26 cm have occurred since that time. These settlements have not led to any stress cracks in the structure.

There appears to be no sign of erosion of the dykes and plants are continuing to seed themselves on the dykes. This growth is minimal however.

Recommendations

We recommend that monitoring of the top of the berm continue on an annual basis through 2014. With the excellent condition of the dyke construction, we see no reason to complete this function other than annually prior to the next inspection.

3.06 Helicopter Fuel Tank Containment

General Conditions

The structure was designed and constructed as a single cell structure that contains a 1000 gal fuel storage tank.

The structure currently conforms to its design intent,

In the past, a liner clad wood curb had been added to the top of the berm to prevent the erosion of gravel off the berm, caused by pulling the fuel hose from within the dyke out to the helicopters to provide them with fuel.

Stability

Our review of the area around the pond at the base of the slopes showed no sign of seepage. There is a minor amount of water ponding in the bottom of the containment indicating the integrity of the liner.

A review of the exterior and the top of the berms showed no sign of cracking or settlement which would indicate stress within the structure.

The structure is considered to be stable in its present condition.

Recommendation

We have no recommendations with respect to this structure.

3.07 Barrel Fuel Containment

General Conditions

This particular structure which we called "Barrel Fuel Containment" in our previous inspection reports is a two cell structure which is currently used to accommodate cubes of lubricant in one cell and a number of stove fuel barrels on skids and a number of fuel dispensing tanks in the other cell.

Stability

Our review of the area around this containment structure showed no sign of seepage. This shows that there is reasonably little chance of tearing or rupture of the membrane having taken place.

A review of the exterior and top of the dyke showed no sign of cracking or settlement which would indicate stresses within the structure.

The structure is considered to be stable in its present condition.

Recommendations

We have no recommendations with respect to this structure.

3.08 Hazardous Waste Storage

General Conditions

This particular cell was constructed contiguous with an existing cell, which is referred to on site as the "Enviro Tank Storage", from drawings by our office in 2010 and conforms to our drawings. It is also contiguous with the Stove Oil Storage cell.

This structure contains barrels and containers of hazardous waste.

Stability

Our review of the area around this cell at the base of the slopes, showed no sign of seepage.

The structure appears stable in its present condition.

Recommendation

There are no recommendations at this time.

3.09 Enviro Tank Storage

General Conditions

This particular structure is constructed contiguous with the Hazardous Waste Storage constructed in 2010 and the Stove Oil Storage cell. It is now empty.

Our review of the area around this cell at the base of the slopes showed no sign of seepage.

The structure is stable in its present condition.

Recommendations

There are no recommendations at this time.

3.10 Stove Oil Storage

General Conditions

This particular structure had been used to store barrels of stove fuel in 2011

The structure is currently empty.

This structure was constructed in accordance with a standardized drawing provided by this office utilizing a one piece liner.

Stability

Our review of the area around the containment structure shows no sign of seepage. This shows that there is reasonably little chance of tearing or rupture of the membrane having taken place.

A review of the exterior and the top of the dyke showed no sign of cracking or settlement which would indicate stresses with the structure.

The structure is considered to be stable in its present condition.

3.11 Jet Fuel Tank and Pump Containment

This particular structure was reconstructed based on our recommendation of the 2012 Geotechnical Inspection.

The construction was completed in accordance with our recommendations for such structures and the liner was constructed as a one piece liner with geotextile protection on both sides and gravel over the geotextile as protection.

The construction appears proper and the structure is in excellent condition.

Minor water ponding confirms the integrity of the liner.

Stability

Our review of the area around this cell at the base of the slopes showed no sign of seepage.

The structure is stable in its present condition.

Recommendations.

There are no recommendations at this time.

3.12 Solid Waste Disposal Site

Berms appear stable and no erosion appears to have taken place.

Solid waste is being placed at the edge of the site and progressively covered.

The disposal is being done in exact conformity with plans prepared and guidelines set out for disposal of solid waste.

3.12 Waste oil Storage Containment

This particular structure has been used to store small amounts of waste oil.

The structure was constructed in accordance with standardized drawings designed by myself and utilized a one piece liner.

Stability

Our review of the area around the containment structure showed no sign of seepage.

There was water ponding in the bottom of the containment structure proving the integrity of the liner.

A review of the exterior and top of the dyke showed no sign of cracking or settlement which would indicate stresses within the structure.

The structure is considered to be stable in its present condition.

Recommendations

We have no recommendations with respect to this structure.

3.13 Overview

This report is the 6th annual Geotechnical Inspection at the Mary River and Milne Inlet sites on behalf of Baffinland Iron Mines Corporation.

Over this five year period between the first and sixth inspections we have noted the following:

1. The weather conditions are such that little or no erosion takes place from wind or rain and the dykes constructed of the sand/gravel soil remain stable at slopes of 3:1 and 4:1.

2. The dykes, after a 5 year period still have only minor vegetation growing on the horizontal surfaces and it shall most certainly take decades for the dykes to naturally vegetate to form a stabilized surface.

   Nonetheless, there has been no erosion to the surface over the last 5 year period.

3. With the construction of the new camp and facilities in process much of what has been reported on is due for demolition in the immediate future.

4.0 MILNE INLET

4.01 General

As with Mary River, the containment facilities over the 5 years that we have been doing Annual Geotechnical Inspections for, have changed in function from their initial use.

In order to maintain continuity, we have maintained the same names as with previous reports.

For example, the Hazardous Waste Containment structure is still a containment structure that is in excellent condition, but it is no longer being used to contain hazardous waste. Instead, this structure is now used to contain cubes of lubricant and barrel fuel. In this report, it still referred to as Hazardous Waste Containment as was its first use for continuity in the reports.

As well, there are new geotechnical structures that have been added to the list of geotechnical structures. These new geotechnical structures are the pads upon which the very large 12M litre and smaller fuel tanks sit upon, the containment dykes around this very large tank farm and the new effluent pond for the new sewage plant.

These structures have been reviewed.

4.2 Bulk Fuel Containment Facility

General Conditions.

This particular containment has been in place for in excess of five years. It is currently being decommissioned and the last of the fuel is being removed from a small number of remaining bladders.

As well, the last of the oil impacted water contained in this containment area is being treated.

The dykes around this containment areas have remained stable and the ponding of water confirms the integrity of the liner.

It is intended that the oil impacted sand in the containment facility be landfarmed in the next season being 2014. We understand that this oil impacted sand shall remain in the containment area until the landfarm treatment area is constructed.

The structure around the fuel bladdders and the area formerly occupied by fuel bladders conforms to the original design.

A review of the interior of the containment showed minor ponding of water. The ponding of water, although minor, confirms the integrity of the structure.

The treatment system used to treat the water which collects in the structure, is in place and operational and we understand shall remain so until the structure is decommissioned.

Stability

Our review of the area around the pond at the base of the slopes, showed no sign of oil, water, or oil/water mixture and hence we conclude that the integrity of the liner, has been maintained. There were no tears or ruptures in the liner observed.

There was no sign of any settlements or seepage, at the base of the soil structures forming the dykes.

The structure is considered to be stable in its present condition.

Recommendations

The performance of the structure has been tested since 2009 with the ponding of water. The observations noted during past inspections have supported the conservative design of the structure. We have no recommendations at this time.

4.03 Existing Polishing/Waste Stabilization Pond

General Conditions

This particular pond is the original PWSP that was constructed prior to 2008, is associated with the original sewage plant, and is servicing the man camp that is still in place.

The PWSP was designed as storage and polishing of effluent from the man camp that could not be immediately released to the environment.

The camp was occupied with a large construction crew and the sewage plant was operating as designed. The PWSP was not being utilized to contain additional effluent at the time of our review.

There was considerable capacity remaining in the PWSP at the time of our inspection.

Currently the PWSP conforms to the design basis for the facility.

Stability

With the PWSP constructed as it is, the structure is considered stable for long term use.

There was no sign of seepage at the bottom of the dyke. There were no signs of settlement or cracking, which are signs of stress in the structure.

Recommendations

Currently, the Milne Inlet PWSP conforms to the design intent and we have no recommendations.

4.04 Barrel Fuel Storage

General Conditions

This particular structure is constructed as a two cell structure.

This structure was originally intended for use as barrel fuel storage. However with time, this structure's use changed to that of storing lubricant cubes as well as barrel storage.

For continuity, we continue to refer to this storage/containment structure as Barrel Fuel Storage.

The structure around these two cells conforms to standardized drawings, prepared by our office for such a structure.

At the time of our inspection, there were two cells in use with minor water ponding in the bottom of the two cells.

Stability

Our review of the area around the ponds, at the base of the slopes, showed no signs of seepage.

The structures are considered stable in their present conditions.

Recommendations

We have no recommendations with respect to this structure at this time.

4.05 Hazardous Waste Storage

General Conditions

This particular structure is constructed as a 2 cell structure.

The structure conforms to the design basis for the facility.

At the time of our last inspection, this structure was utilized to store hazardous waste contained in barrels.

Since last year, the waste has been tested and hazardous materials have been removed and are in the process of being shipped out off site. Materials that have proven to be non-hazardous are currently in barrels adjacent to the structure awaiting disposal.

This containment structure, is now used as containment for barrel fuel and lubricant cubes.

The minor ponding of water in the bottom of the cells confirms the integrity of the liner.

Stability

Our review of the area around the dykes, at the base of the slopes, showed no sign of seepage.

There were no signs of stress noted in the structure. The structure is considered stable in its present condition.

Recommendations

Currently, this containment structure conforms to the design intent and we have no recommendations.

4.06 Oil and Antifreeze Containment

General Conditions

This particular structure is located between the air strip and the Bulk Fuel Storage.

The structure around this containment area conforms to standardized drawings prepared under my direction in the past.

Stability

Our review of the area around the structure at the base of the slopes, showed no signs of seepage.

There was no signs of stress in the dykes and the structure is considered stable.

Recommendations

We have no recommendations with respect to this structure.

4.07 Jet "A" Pump Containment

General Conditions

This small cell on the north side and adjacent to the Bulk Fuel Storage Containment is to control spillage during refuelling.

There was water ponding above the sand cover which confirms the integrity of the liner.

Stability

Our review of the area around the base of the dykes, showed no sign of seepage.

There was no cracking or settlement observed in the dyke structures.

Recommendations

We have no recommendations at this time with respect to this structure.

4.08 Fuel Tank Farm

General Conditions

This particular structure was discussed in the 2012 Annual Geotechnical Report as "5M litre Steel Fuel Storage Tank Containment".

The fuel storage facility has been considerably expanded since 2012.

There has been a second 5m litre tank constructed and two 12M litre tanks are under construction.

Pads have been constructed for one more 12 M litre tank and 3 more 0.75 M litre tanks which were being delivered as the report was being written.

We noted the following:

1. The containment structure was put in place prior to the construction of the tanks and the pads for the tanks were constructed with the containment dykes.

2. The dykes that had been constructed as containment for the initial 5 M litre tank, were incorporated into the overall dyke construction for the entire tank farm.

3. The drainage of the tank farm structure now utilizes the sump constructed for the initial tank.

4. The dykes incorporate rip-rap on the exterior of the dyke.

5 We would classify the quality of the work in the construction of the dykes and pads, including the base of the structure as exceptionally good and of a quality that should last for decades.

Stability

We noted no sign of weakness in any of the construction.

Design

We attach a copy of the design drawings of the fuel storage site being the following Hatch drawings:

2613-10-35-001
2613-10-035-002
2613-10-035-004

These drawings set out the plan, section, and details of the containment structure. The construction conforms to these drawings.

4.09 New Effluent Pond

General Conditions

This New Effluent Pond was constructed in 2013 to accommodate the new sewage plant and serve as a PWSP for this new plant which had yet to be put into operation at the time of our inspection.

We noted the following;

1. The pond has a design capacity of 1080 m^3 with 1.0 m freeboard.

2. The dyke is constructed of 150 mm crushed mine rock material that is not subject to erosion.

3. The dyke has a summer design capacity of 2230 m^3 with 0.3 m freeboard.

4. The quality of construction is such that this structure should last for many decades.

Stability

We noted no sign of weakness in any of the construction.

Design

We attach a copy of the following Hatch drawing:

2735-10-035-0001
2735-10-035-0002

These drawings set out the plan, section, and details of the Effluent Pond construction.

4.10 Overview

The permanent facilities for Milne Inlet are currently under construction and many of the facilities reported on are scheduled for decommissioning over the next 12 months as the new facilities are constructed.

Design drawings and photos of new facilities have been included with this report.

Respectfully submitted

Barry H. Martin, P. Eng., MRAIC
BHM/jw

REGISTERED PROFESSIONAL ENGINEER
B.H. MARTIN
LICENSEE
27/10/13
NWT/NU

Appendix E
Milne Sampling Log - Construction

Sample Station	Date	Time	Internal Turbidity (NTU)	External Turbidity (NTU)	External TSS (mg/L)	Internal Sp. Conductance (uS/cm)	External Sp. Conductance (uS/cm)	Internal pH	External pH	External Total Oil & Grease (mg/L)	External Ammonia (mg/L)	External Nitrate (mg/L)	Field Notes
MP-C-A	12-Jun-13	9:55	6.13	4.7	4	N/A	N/A	N/A	7.55	N/A	N/A	N/A	Milne PWSP was not being pumped during sampling.
MP-C-D	12-Jun-13	10:00	1.08	2.8	10	N/A	N/A	N/A	7.77	N/A	N/A	N/A	
MP-C-F	12-Jun-13	10:20	0.2	0.8	<2	N/A	N/A	N/A	7.97	N/A	N/A	N/A	
MP-C-Z	12-Jun-13	10:30	0.37	1.5	<2	N/A	N/A	N/A	7.93	N/A	N/A	N/A	
MP-C-A	14-Jun-13	11:10	13.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Warm weather is causing stream flows to increase significantly.
MP-C-D	14-Jun-13	11:00	3.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Warm weather is causing stream flows to increase significantly.
MP-C-F	14-Jun-13	10:55	0.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Warm weather is causing stream flows to increase significantly.
MP-C-Z	14-Jun-13	10:40	1.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Warm weather is causing stream flows to increase significantly.
MP-C-A	16-Jun-13	10:50	10.19	N/A	N/A	N/A	N/A	7.83	N/A	N/A	N/A	N/A	
MP-C-D	16-Jun-13	11:00	60.4	N/A	N/A	N/A	N/A	8.26	N/A	N/A	N/A	N/A	Flow has accelerated significantly due to melt.
MP-C-F	16-Jun-13	11:10	1.25	N/A	N/A	N/A	N/A	8.4	N/A	N/A	N/A	N/A	
MP-C-Z	16-Jun-13	11:30	94.3	N/A	N/A	N/A	N/A	8.23	N/A	N/A	N/A	N/A	Silt fences were installed upstream and downstream of sampling station.
MP-C-D	17-Jun-13	8:30	33.9	N/A	N/A	N/A	N/A	8.41	N/A	N/A	N/A	N/A	Pre-pumping sample
MP-C-Z	17-Jun-13	11:20	10.93	N/A	N/A	N/A	N/A	8.3	N/A	N/A	N/A	N/A	Follow-up sample to ensure silt fences are being effective in lowering turbidity readings.
MP-C-D	17-Jun-13	12:20	123	N/A	N/A	N/A	N/A	8.52	N/A	N/A	N/A	N/A	During test run - only pumped for 15 minutes
MP-C-D	17-Jun-13	15:30	121	N/A	N/A	N/A	N/A	8.48	N/A	N/A	N/A	N/A	During pumping - Pumped from 13:20 - 17:00 HRS
MP-C-A	18-Jun-13	8:30	2.71	N/A	N/A	N/A	N/A	7.33	N/A	N/A	N/A	N/A	Before water flows through new culvert at North end of bladder farm
MP-C-A	18-Jun-13	11:00	21.6	N/A	N/A	N/A	N/A	7.65	N/A	N/A	N/A	N/A	During flow - started flow at 10:00 HRS
MP-C-D	18-Jun-13	11:15	4.19	N/A	N/A	N/A	N/A	8.16	N/A	N/A	N/A	N/A	
MP-C-F	18-Jun-13	11:20	1.79	N/A	N/A	N/A	N/A	8.17	N/A	N/A	N/A	N/A	
MP-C-Z	18-Jun-13	11:30	9.63	N/A	N/A	N/A	N/A	8.07	N/A	N/A	N/A	N/A	
MP-C-A	20-Jun-13	9:30	14.3	N/A	N/A	N/A	N/A	7.37	N/A	N/A	N/A	N/A	Construction deepens ditch to drain area West of crusher
MP-C-D	20-Jun-13	9:40	10.3	N/A	N/A	N/A	N/A	7.64	N/A	N/A	N/A	N/A	Construction begins tank farm expansion
MP-C-F	20-Jun-13	9:50	1.72	N/A	N/A	N/A	N/A	7.89	N/A	N/A	N/A	N/A	
MP-C-Z	20-Jun-13	10:00	7.12	N/A	N/A	N/A	N/A	7.63	N/A	N/A	N/A	N/A	
MP-C-A	22-Jun-13	11:05	10.82	N/A	N/A	N/A	N/A	7.98	N/A	N/A	N/A	N/A	
MP-C-D	22-Jun-13	11:15	6.09	N/A	N/A	N/A	N/A	8	N/A	N/A	N/A	N/A	Tank farm expansion underway
MP-C-F	22-Jun-13	11:25	2.82	N/A	N/A	N/A	N/A	8.1	N/A	N/A	N/A	N/A	
MP-C-Z	22-Jun-13	11:30	5.01	N/A	N/A	N/A	N/A	8.08	N/A	N/A	N/A	N/A	
MP-C-A	24-Jun-13	14:20	14.5	N/A	N/A	N/A	N/A	7.55	N/A	N/A	N/A	N/A	
MP-C-D	24-Jun-13	14:30	11.3	N/A	N/A	N/A	N/A	7.81	N/A	N/A	N/A	N/A	
MP-C-F	24-Jun-13	14:35	2.92	N/A	N/A	N/A	N/A	7.69	N/A	N/A	N/A	N/A	
MP-C-Z	24-Jun-13	14:40	6.92	N/A	N/A	N/A	N/A	7.93	N/A	N/A	N/A	N/A	
MP-C-A	26-Jun-13	13:10	29.2	N/A	N/A	N/A	N/A	7.71	N/A	N/A	N/A	N/A	Significant rainfall during the previous night. External samples taken.
MP-C-D	26-Jun-13	13:25	6.1	N/A	N/A	N/A	N/A	8.18	N/A	N/A	N/A	N/A	Significant rainfall during the previous night. External samples taken.
MP-C-F	26-Jun-13	13:30	1.49	N/A	N/A	N/A	N/A	8.16	N/A	N/A	N/A	N/A	Significant rainfall during the previous night. External samples taken.
MP-C-Z	26-Jun-13	13:40	8.51	N/A	N/A	N/A	N/A	8.35	N/A	N/A	N/A	N/A	Significant rainfall during the previous night. External samples taken.
MP-C-A	28-Jun-13	13:50	8.08	N/A	N/A	N/A	N/A	8.08	N/A	N/A	N/A	N/A	
MP-C-D	28-Jun-13	13:55	3.46	N/A	N/A	N/A	N/A	8.18	N/A	N/A	N/A	N/A	
MP-C-F	28-Jun-13	14:05	70	N/A	N/A	N/A	N/A	8.33	N/A	N/A	N/A	N/A	
MP-C-Z	28-Jun-13	14:10	208	N/A	N/A	N/A	N/A	8.12	N/A	N/A	N/A	N/A	Water stagnant.
MP-C-A	30-Jun-13	14:00	2.75	N/A	N/A	N/A	N/A	8.13	N/A	N/A	N/A	N/A	
MP-C-D	30-Jun-13	14:07	2.92	N/A	N/A	N/A	N/A	8.26	N/A	N/A	N/A	N/A	
MP-C-F	30-Jun-13	14:15	5.17	N/A	N/A	N/A	N/A	8.2	N/A	N/A	N/A	N/A	
MP-C-Z	30-Jun-13	14:20	22.8	N/A	N/A	N/A	N/A	8.3	N/A	N/A	N/A	N/A	Water not flowing
MP-C-A	2-Jul-13	11:30	8.15	N/A	<2	N/A	N/A	8.03	8.05	N/A	N/A	N/A	
MP-C-D	2-Jul-13	N/A	N/A	N/A	<2	N/A	N/A	N/A	8.17	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled
MP-C-F	2-Jul-13	11:50	0.99	N/A	N/A	N/A	N/A	8.29	N/A	N/A	N/A	N/A	
MP-C-Z	2-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This water was still and not draining anywhere so it was not sampled
MP-C-A	6-Jul-13	14:00	1.48	N/A	N/A	N/A	N/A	8.15	N/A	N/A	N/A	N/A	
MP-C-D	6-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled
MP-C-F	6-Jul-13	14:20	2.28	N/A	N/A	N/A	N/A	7.65	N/A	N/A	N/A	N/A	
MP-C-Z	6-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This water was still and not draining anywhere so it was not sampled
MP-C-A	8-Jul-13	14:00	1.38	N/A	N/A	N/A	N/A	7.96	N/A	N/A	N/A	N/A	
MP-C-D	8-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled
MP-C-F	8-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled
MP-C-Z	8-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This water was still and not draining anywhere so it was not sampled
MP-C-A	8-Jul-13	7:30	1.38	N/A	N/A	N/A	N/A	7.96	N/A	N/A	N/A	N/A	
MP-C-D	8-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled
MP-C-F	8-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled
MP-C-Z	8-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This water was still and not draining anywhere so it was not sampled
MP-C-A	10-Jul-13	11:30	0.77	0.5	<2	N/A	612	8.36	8.13	N/A	N/A	N/A	Rainfall during the previous night. External samples taken.
MP-C-D	10-Jul-13	11:30	27.9	1.1	96	N/A	506	8.32	8.2	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled
MP-C-F	10-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This outfall was completely dry upon inspection so was not sampled

MP-C-Z	10-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	This water was still and not draining anywhere so it was not sampled
MP-C-A	12-Jul-13	19:00	19.6	6.7	26	N/A	1570	8.19	8.09	N/A	N/A	N/A		Rainfall during the previous night and during the day. External samples taken.
MP-C-D	12-Jul-13	19:00	1.64	0.9	47	N/A	461	8.2	8.17	N/A	N/A	N/A		Rainfall during the previous night and during the day. External samples taken.
MP-C-F	12-Jul-13	19:00	17.65	1.7	188	N/A	352	8.16	8.02	N/A	N/A	N/A		Rainfall during the previous night and during the day. External samples taken.
MP-C-Z	12-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
MP-C-A	14-Jul-13	11:00	1.97	N/A	N/A	N/A	N/A	8.45	N/A	N/A	N/A	N/A		
MP-C-D	14-Jul-13	11:05	1.69	N/A	N/A	N/A	N/A	8.3	N/A	N/A	N/A	N/A		
MP-C-F	14-Jul-13	11:20	1.68	N/A	N/A	N/A	N/A	8.44	N/A	N/A	N/A	N/A		
MP-C-Z	14-Jul-13	N\A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		No flow. Pooled water. No sample taken.
MP-C-A	16-Jul-13	17:10	10.86	N/A	N/A	N/A	N/A	8.36	N/A	N/A	N/A	N/A		
MP-C-D	16-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Stream bed dry. No sample taken.
MP-C-F	16-Jul-13	17:20	3.18	N/A	N/A	N/A	N/A	8.44	N/A	N/A	N/A	N/A		
MP-C-Z	16-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		No flow. Pooled water. No sample taken.
MP-C-A	18-Jul-13	13:55	2.19	N/A	N/A	N/A	N/A	8.26	N/A	N/A	N/A	N/A		
MP-C-D	18-Jul-13	14:10	1.41	N/A	N/A	N/A	N/A	8.23	N/A	N/A	N/A	N/A		
MP-C-F	18-Jul-13	14:20	0.9	N/A	N/A	N/A	N/A	8.29	N/A	N/A	N/A	N/A		
MP-C-Z	18-Jul-13	14:25	7.65	N/A	N/A	N/A	N/A	8.17	N/A	N/A	N/A	N/A		Construction of permanent camp pad 20 meters away from sampling site.
MP-C-D	19-Jul-13	16:55	0.94	1.1	3	N/A	409	8.46	8.06	N/A	N/A	N/A		Internal and external sample taken due to high TSS reading from Exova.
MP-C-A	20-Jul-13	9:35	2.67	N/A	N/A	746	N/A	8.26	N/A	N/A	N/A	N/A		Laydown area construction on the west side of the airstrip may affect turbidity levels in the next couple days
MP-C-D	20-Jul-13	9:45	2.29	N/A	N/A	449	N/A	8.28	N/A	N/A	N/A	N/A		
MP-C-F	20-Jul-13	9:50	0.12	N/A	N/A	754	N/A	8.18	N/A	N/A	N/A	N/A		
MP-C-Z	20-Jul-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Sample station covered by permanent camp pad construction.
MP-C-A	22-Jul-13	11:35	1.13	0.6	2	794	824	8.2	8.21	N/A	N/A	N/A		Internal and external samples taken
MP-C-D	22-Jul-13	11:50	0.71	0.2	4	635	685	8.19	8.14	N/A	N/A	N/A		Internal and external samples taken
MP-C-F	22-Jul-13	11:55	0.44	0.2	<2	753	773	8.25	8.22	N/A	N/A	N/A		Internal and external samples taken
MP-C-A	24-Jul-13	14:10	**61.5**	N/A	N/A	1068	N/A	8.24	N/A	N/A	N/A	N/A		Work on the laydown area around the ore piles and west of airstrip is causing an increase in turbidity. Silt fences are in place. Will assess daily.
MP-C-D	24-Jul-13	14:15	1.67	N/A	N/A	573	N/A	8.33	N/A	N/A	N/A	N/A		
MP-C-F	24-Jul-13	14:20	0.41	N/A	N/A	790	N/A	8.31	N/A	N/A	N/A	N/A		
MP-C-A	26-Jul-13	8:30	6.75	N/A	N/A	1015	N/A	8.19	N/A	N/A	N/A	N/A		
MP-C-D	26-Jul-13	9:45	12.4	N/A	N/A	611	N/A	8.18	N/A	N/A	N/A	N/A		
MP-C-F	26-Jul-13	9:50	0.99	N/A	N/A	864	N/A	8.38	N/A	N/A	N/A	N/A		
MP-C-A	28-Jul-13	14:10	13.2	N/A	N/A	1061	N/A	8.03	N/A	N/A	N/A	N/A		
MP-C-D	28-Jul-13	14:15	1.56	N/A	N/A	709	N/A	8.21	N/A	N/A	N/A	N/A		
MP-C-F	28-Jul-13	14:20	1.97	N/A	N/A	1104	N/A	8.15	N/A	N/A	N/A	N/A		
MP-C-A	30-Jul-13	11:45	1.26	N/A	N/A	8.14	N/A	1060	N/A	N/A	N/A	N/A		
MP-C-D	30-Jul-13	11:50	2.2	N/A	N/A	8.14	N/A	790	N/A	N/A	N/A	N/A		
MP-C-F	30-Jul-13	13:45	2.6	N/A	N/A	8.28	N/A	990	N/A	N/A	N/A	N/A		
MP-C-A	1-Aug-13	11:50	2.26	N/A	N/A	1024	N/A	8.2	N/A	N/A	N/A	N/A		
MP-C-D	1-Aug-13	11:20	0.83	N/A	N/A	737	N/A	8.18	N/A	N/A	N/A	N/A		
MP-C-F	1-Aug-13	11:25	10.11	N/A	N/A	1011	N/A	8.16	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	3-Aug-13	8:20	0.7	N/A	N/A	1079	N/A	8.24	N/A	N/A	N/A	N/A		
MP-C-D	3-Aug-13	8:10	0.93	N/A	N/A	672	N/A	8.13	N/A	N/A	N/A	N/A		
MP-C-F	3-Aug-13	8:05	0.55	N/A	N/A	956	N/A	8.23	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	5-Aug-13	9:05	3.93	N/A	N/A	1101	N/A	8.17	N/A	N/A	N/A	N/A		
MP-C-D	5-Aug-13	8:35	0.08	N/A	N/A	781	N/A	8.12	N/A	N/A	N/A	N/A		
MP-C-F	5-Aug-13	8:30	6.33	N/A	N/A	978	N/A	8.33	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	7-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-D	7-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-F	7-Aug-13	16:10	2.43	N/A	N/A	1061	N/A	8.3	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	9-Aug-13	17:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-D	9-Aug-13	17:05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-F	9-Aug-13	17:10	3.08	N/A	N/A	989	N/A	8.33	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	11-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-D	11-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-F	11-Aug-13	17:40	0.51	N/A	N/A	985	N/A	7.86	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	13-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-D	13-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-F	13-Aug-13	7:10	0.34	N/A	N/A	1119	N/A	8.06	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	15-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-D	15-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-F	15-Aug-13	8:30	0.4	N/A	N/A	1047	N/A	7.97	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F
MP-C-A	19-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-D	19-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Groundwater drainage - no water flowing at outfall
MP-C-F	19-Aug-13	18:30	1.27	N/A	N/A	1018	N/A	8.16	N/A	N/A	N/A	N/A		Construction of permanent camp pad occuring around pond drained by MP-C-F.

MP-C-A	20-Aug-13	N/A	182	1.5	2	843	1050	8.41	8.2	<1	0.06	2.37	Samples were taken after a heavy rain event. Values are high due high traffic around the area (heavy equipment transporting materials from the beach area to different layouts.) Also, this is the lowest point and all run-off goes to this area. Water stagnant.
MP-C-D	20-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-F	20-Aug-13	14:00	54.9	67	190	1037	1070	8.34	8.2	<1	1.6	2.78	Construction of permanent camp pad occuring around pond drained by MP-C-F.
MP-C-A	21-Aug-13	14:00	9.28	N/A	N/A	985	N/A	8	N/A	N/A	N/A	N/A	External samples taken 24 h after rain layouts.
MP-C-D	21-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall`
MP-C-F	21-Aug-13	14:00	7.38	2.3	8	950	1010	8.13	8.15	<1	3.77	11.8	External samples taken 24 h after rain layouts. Due high levels of turbidity
MP-C-A	23-Aug-13	10:00	1.5	N/A	N/A	1126	N/A	8.18	N/A	N/A	N/A	N/A	
MP-C-D	23-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall`
MP-C-F	23-Aug-13	10:00	1.32	N/A	N/A	927	N/A	8.13	N/A	N/A	N/A	N/A	Construction of permanent camp pad occuring around pond drained by MP-C-F. Silt fence were instaled the day before. Turbidity leves went down
MP-C-A	24-Aug-13	10:00	109	74.8	98	770	792	8.19	8.12	<1	0.23	1.06	External Samples Taken. Samples taken after rain
MP-C-D	24-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-F	24-Aug-13	10:00	4.8	2.4	3	995	1030	8.05	8.1	<1	2.34	9.16	Construction of permanent camp pad occuring around pond drained by MP-C-F. Silt fence installed. External samples taken
MP-C-A	24-Aug-13	14:00	20	8.3	7	808	813	8.23	8.19	<1	0.14	1.32	External Samples Taken. Samples several hours after rain stop
MP-C-D	24-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No sample re-taken
MP-C-F	24-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No sample re-taken
MP-C-A	26-Aug-13	12:30	3.5	N/A	N/A	1030	N/A	8.26	N/A	N/A	N/A	N/A	
MP-C-D	26-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-F	26-Aug-13	18:00	0.21	N/A	N/A	1113	N/A	8.05	N/A	N/A	N/A	N/A	
MP-C-A	30-Aug-13	14:30	2.23	N/A	N/A	1054	N/A	8.18	N/A	N/A	N/A	N/A	
MP-C-D	30-Aug-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-F	30-Aug-13	14:45	0.43	N/A	N/A	1136	N/A	8.11	N/A	N/A	N/A	N/A	
MP-C-A	2-Sep-13	14:00	3.56	N/A	N/A	1078	N/A	8	N/A	N/A	N/A	N/A	
MP-C-D	2-Sep-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-F	2-Sep-13	14:10	1.18	N/A	N/A	1301	N/A	8.02	N/A	N/A	N/A	N/A	
MP-C-A	6-Sep-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-D	6-Sep-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-F	6-Sep-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Groundwater drainage - no water flowing at outfall
MP-C-A	9-Sep-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Outfall frozen - no sample taken
MP-C-D	9-Sep-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Outfall frozen - no sample taken
MP-C-F	9-Sep-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Outfall frozen - no sample taken

Appendix F
Survey Data

NUNA EAST LTD

Section 4

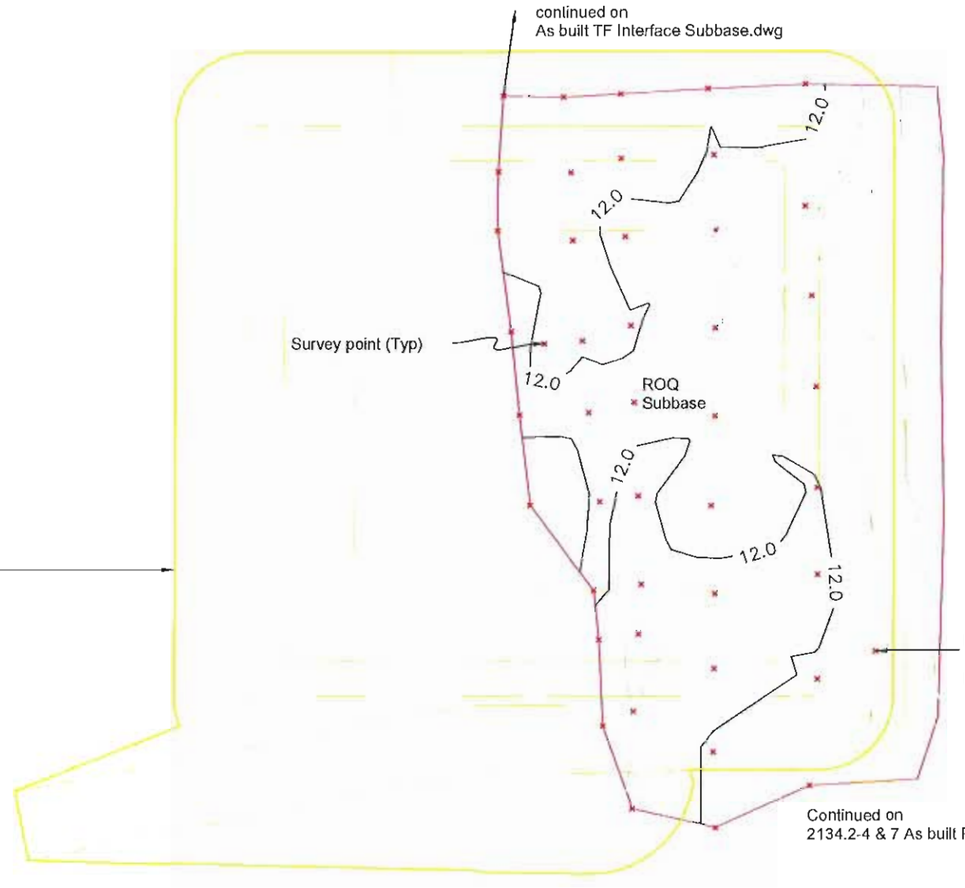
Survey Data

Job # 2999

Activity # 04 & 06

Point #	Northing	Easting	Elevation	Description
1	7976014.014	503664	0	Subbase
1310	7976061.934	503642.033	12.079	pt
1311	7976056.382	503642.091	12.055	pt
1312	7976049.664	503642.449	11.949	pt
1313	7976042.015	503642.972	12.01	pt
1314	7976035.406	503643.252	11.983	pt
1315	7976027.385	503643.643	12.019	pt
1316	7976019.804	503643.902	12.045	pt
1317	7976015.533	503643.708	12.123	pt
1318	7976008.884	503643.24	12.097	pt
1319	7976000.512	503643.196	12.105	pt
1320	7975998.858	503650.338	11.978	pt
1321	7976005.397	503650.105	11.984	pt
1322	7976012.531	503650.15	12.052	pt
1323	7976018.977	503650.223	12.038	pt
1324	7976026.543	503649.888	11.94	pt
1325	7976034.251	503650.204	11.991	pt
1326	7976041.804	503650.193	11.912	pt
1327	7976050.205	503650.197	11.965	pt
1328	7976056.684	503650.043	11.995	pt
1329	7976062.374	503649.512	12.007	pt
1330	7976062.756	503657.874	12.053	pt
1331	7976052.282	503657.887	11.938	pt
1332	7976044.573	503658.467	11.751	pt
1333	7976036.73	503658.877	11.936	pt
1334	7976028.085	503659.003	12.007	pt
1335	7976020.621	503659.027	12.037	pt
1336	7976011.632	503659.032	11.987	pt
1337	7976002.496	503658.351	11.865	pt
1338	7976007.629	503640.648	12.081	pt
1339	7976015.042	503640.264	12.052	pt
1340	7976019.264	503639.793	11.975	pt
1341	7976026.882	503640.313	11.985	pt
1342	7976034.544	503639.327	11.962	pt
1343	7976040.7	503638.784	12.011	pt
1344	7976049.342	503637.943	12.058	pt
1345	7976055.176	503637.763	12.064	pt
1346	7976061.658	503637.094	12.085	pt
1347	7976061.762	503631.924	12.109	pt
1348	7976055.242	503631.498	12.001	pt
1349	7976050.175	503631.444	12.036	pt
1350	7976041.504	503632.633	11.949	pt

1351	7976040.463	503635.503	12.035	pt
1352	7976034.343	503633.342	11.969	pt
1353	7976026.601	503634.299	12.092	pt



Note. For Detail location of ROQ fill sections for PADS B1,B2,B3 and Effluent Pond. Refer to pdf H349000-2130-10-015-0001_0 _V2.pdf

0 m 10 m 20 m 30 m

NOTES:

Effluent Pond Job No:2999 BIM 2.3.1.12
Run of Quarry fill Area: Activity # 4

Reference drawing H349000-2130-10-015-0001 Rev 0

CLIENT: Baffinland Iron Mines Corporation

PROJECT: Mary River Project, Baffin Island, Nunavut

PREPARED BY:
Nuna East Ltd.
9839 - 31 Avenue
Edmonton, AB
T6N 1C5

DRAWN BY: mc

SCALE: 1:500

DATE: Sept. 26, 2013

DRAWING TITLE:
Milne Port-Effluent Pond ROQ Subbase

DRAWING NAME (YYMMDD): 2999-4 Asbuilt EP ROQ Subbase 130706.dwg

Job # 2999
Activity # 6

Point #	Northing	Easting	Elevation	Description
1000	7976049.508	503613.161	13.931	roqc
1001	7976040.43	503613.137	13.998	roqc
1002	7976053.357	503613.489	13.977	roqc
1003	7976042.611	503613.198	13.97	roqc
1004	7976033.384	503613.448	13.971	roqc
1005	7976023.215	503613.701	13.847	roqc
1006	7976017.601	503613.767	13.877	roqc
1007	7976015	503615.017	13.917	roqc
1008	7976013.792	503616.362	14.008	roqc
1009	7976013.732	503621.253	13.984	roqc
1010	7976013.959	503627.743	13.813	roqc
1011	7976013.916	503639.115	13.86	roqc
1012	7976013.667	503647.982	13.865	roqc
1013	7976014.041	503654.002	13.918	roqc
1014	7976015.685	503654.869	13.863	roqc
1015	7976022.396	503654.962	13.822	roqc
1016	7976029.146	503655.549	13.849	roqc
1017	7976041.457	503655.725	13.891	roqc
1018	7976050.067	503655.757	13.967	roqc
1019	7976055.544	503655.712	13.976	roqc
1020	7976056.113	503654.012	14.043	roqc
1021	7976055.923	503647.604	13.968	roqc
1022	7976055.926	503647.593	13.967	roqc
1023	7976055.752	503638.849	14.016	roqc
1024	7976056.001	503630.612	14.076	roqc
1025	7976056.268	503621.81	14.107	roqc
1026	7976056.282	503616.091	14.036	roqc
1027	7976055.59	503614.368	13.987	roqc
1028	7976050.268	503619.296	12.019	roqt
1029	7976048.882	503619.185	12.063	roqt
1030	7976037.664	503619.102	12.044	roqt
1031	7976027.038	503619.099	12.08	roqt
1033	7976018.97	503628.548	12.092	roqt
1034	7976019.123	503636.823	12.022	roqt
1035	7976019.103	503640.216	11.998	roqt
1036	7976019.136	503645.282	12.011	roqt
1038	7976028.445	503650.143	12.012	roqt
1039	7976035.849	503650.22	12.001	roqt
1040	7976041.673	503650.26	11.934	roqt
1042	7976050.231	503642.643	11.999	roqt
1043	7976050.231	503635.166	12.085	roqt
1044	7976050.205	503627.13	12.087	roqt

1045	7976051.009	503611.818	13.928	roqx
1046	7976057.363	503612.688	13.965	roqx
1047	7976057.937	503620.659	14.033	roqx
1048	7976058.162	503628.736	14.007	roqx
1049	7976058.183	503637.992	13.984	roqx
1050	7976058.292	503646.127	13.903	roqx
1051	7976058.396	503653.746	13.941	roqx
1052	7976058.35	503657.446	13.964	roqx
1053	7976051.648	503657.936	13.907	roqx
1054	7976045.141	503657.84	13.921	roqx
1055	7976036.016	503657.431	13.892	roqx
1056	7976025.389	503657.717	13.874	roqx
1057	7976015.689	503657.07	13.923	roqx
1058	7976012.877	503656.118	13.892	roqx
1059	7976011.568	503646.153	13.818	roqx
1060	7976011.497	503636.995	13.827	roqx
1061	7976011.383	503627.639	13.911	roqx
1062	7976011.063	503618.47	13.958	roqx
1063	7976011.741	503612.099	13.902	roqx
1064	7976021.213	503611.562	13.782	roqx
1065	7976030.75	503611.771	13.916	roqx
1066	7976040.271	503612.014	13.964	roqx
1067	7976047.7	503612.055	13.924	roqx
1068	7976053.641	503611.798	13.896	roqx
1312	7976049.664	503642.449	11.949	pt
1313	7976042.015	503642.972	12.01	pt
1314	7976035.406	503643.252	11.983	pt
1315	7976027.385	503643.643	12.019	pt
1324	7976026.543	503649.888	11.94	pt
1326	7976041.804	503650.193	11.912	pt
1340	7976019.264	503639.793	11.975	pt
1341	7976026.882	503640.313	11.985	pt
1342	7976034.544	503639.327	11.962	pt
1343	7976040.7	503638.784	12.011	pt
1344	7976049.342	503637.943	12.058	pt
1349	7976050.175	503631.444	12.036	pt
1350	7976041.504	503632.633	11.949	pt
1351	7976040.463	503635.503	12.035	pt
1352	7976034.343	503633.342	11.969	pt
4193100	7976019.152	503619.117	12.196	ROQ
4193101	7976013.143	503613.119	13.939	ROQ
4193103	7976019.19	503650.162	12.284	ROQ
4193104	7976050.22	503650.174	12.065	ROQ
4193105	7976056.201	503656.175	13.823	ROQ
4193106	7976013.165	503656.168	13.819	ROQ
5224015	7976058.072	503603.132	11.852	TOE ROQ
5224016	7976044.14	503603.184	11.881	TOE ROQ

5224017	7976028.178	503603.118	11.726	TOE ROQ
5224018	7976014.829	503602.85	11.822	TOE ROQ
5224019	7976009.165	503602.273	11.818	TOE ROQ
5224020	7976006.833	503601.254	11.897	TOE ROQ
5224021	7976004.805	503597.194	11.88	TOE ROQ
5224022	7975996.446	503597.625	12.098	TOE ROQ
5224023	7975995.557	503607.488	12.056	TOE ROQ
5224024	7975994.694	503623.113	12.082	TOE ROQ
5224025	7975995.548	503639.387	12.009	TOE ROQ
5224050	7976008.332	503660.814	13.745	BRK ROQ
5224051	7976010.152	503659.349	14.186	BRK ROQ
7199100	7976010.973	503629.416	14.137	ROQ C
7199101	7976011.043	503624.918	14.096	ROQ C
7199102	7976011.034	503619.903	14.105	ROQ C
7199103	7976010.693	503614.841	14.197	ROQ C
7199104	7976011.109	503611.211	14.076	ROQ C
7199105	7976015.49	503610.756	14.107	ROQ C
7199106	7976021.271	503610.876	14.089	ROQ C
7199107	7976030.167	503610.806	14.129	ROQ C
7199108	7976036.476	503610.881	14.137	ROQ C
7199109	7976042.969	503610.713	14.164	ROQ C
7199110	7976050.337	503610.831	14.153	ROQ C
7199111	7976055.165	503610.779	14.103	ROQ C
7199112	7976057.771	503610.908	14.177	ROQ C
7199113	7976058.283	503611.599	14.181	ROQ C
7199114	7976058.526	503617.414	14.125	ROQ C
7199115	7976058.641	503625.901	14.165	ROQ C
7199116	7976058.655	503634.577	14.197	ROQ C
7199117	7976058.607	503643.522	14.091	ROQ C
7199118	7976058.627	503651.687	14.134	ROQ C
7199119	7976058.55	503657.186	14.22	ROQ C
7199120	7976058.057	503658.551	14.126	ROQ C
7199121	7976052.575	503658.724	14.079	ROQ C
7199122	7976044.525	503658.611	14.169	ROQ C
7199123	7976036.91	503658.489	14.154	ROQ C
7199124	7976025.38	503658.583	14.177	ROQ C
7199125	7976018.095	503658.494	14.14	ROQ C
7199126	7976016.322	503658.519	14.056	ROQ C
7199127	7976010.471	503655.168	14.04	ROQ C
7199128	7976010.726	503648.554	14.063	ROQ C
7199129	7976010.832	503643.858	14.072	ROQ C
7199130	7976011.055	503640.809	14.111	ROQ C
7199131	7976008.819	503639.764	14.096	ROQ C
7199132	7976005.895	503640.487	14.147	ROQ C
7199134	7976001.017	503640.82	14.335	ROQ C
7199135	7976000.32	503639.839	14.328	ROQ C
7199136	7976000.003	503635.819	14.363	ROQ C

7199137	7975999.868	503631.243	14.282	ROQ C
7199138	7976000.337	503628.98	14.34	ROQ C
7199139	7976001.253	503628.393	14.349	ROQ C
7199140	7976002.279	503628.309	14.164	ROQ C
7199141	7976002.605	503627.881	13.91	ROQ C
7199168	7976004.895	503627.482	13.952	ROQ X
7199169	7976002.219	503630.1	14.351	ROQ X
7199170	7976001.114	503632.796	14.262	ROQ X
7199171	7976001.578	503637.172	14.245	ROQ X
7199172	7976002.603	503639.93	14.233	ROQ X
7257001	7976097.147	503593.55	12.944	ROQ T
7257002	7976097.17	503598.725	12.909	ROQ T
7257003	7976096.955	503606.43	12.841	ROQ T
7257004	7976096.665	503612.097	12.705	ROQ T
7257005	7976096.048	503616.631	12.667	ROQ T
7257006	7976095.588	503622.851	12.564	ROQ T
7257007	7976095.477	503628.389	12.401	ROQ T
7257008	7976095.525	503633.74	12.365	ROQ T
7257009	7976094.975	503641.027	12.204	ROQ T
7257010	7976094.87	503646.853	12.219	ROQ T
7257011	7976094.658	503653.765	12.007	ROQ T
7257012	7976094.467	503658.186	11.904	ROQ T
7257013	7976094.5	503661.433	11.927	ROQ T
7257014	7976093.771	503661.349	11.905	ROQ X
7257015	7976088.133	503661.387	11.901	ROQ X
7257016	7976082.128	503661.607	11.717	ROQ X
7257017	7976076.852	503661.482	11.725	ROQ X
7257018	7976074.532	503661.236	11.728	ROQ X
7257019	7976074.641	503658.138	11.804	ROQ X
7257020	7976078.648	503657.01	11.708	ROQ X
7257021	7976082.952	503656.467	11.867	ROQ X
7257022	7976087.915	503656.142	11.964	ROQ X
7257023	7976092.32	503656.564	11.888	ROQ X
7257024	7976092.407	503653.669	11.928	ROQ X
7257025	7976085.276	503653.574	11.949	ROQ X
7257026	7976080.868	503654.493	11.994	ROQ X
7257027	7976076.598	503655.822	11.949	ROQ X
7257028	7976073.256	503657.504	11.885	ROQ X
7257029	7976071.309	503656.998	12.108	ROQ X
7257030	7976072.143	503651.509	12.148	ROQ X
7257031	7976078.459	503651.087	12.108	ROQ X
7257032	7976084.524	503651.423	12.111	ROQ X
7257033	7976090.542	503651.122	12.04	ROQ X
7257034	7976091.313	503643.382	12.262	ROQ X
7257035	7976084.647	503643.309	12.23	ROQ X
7257036	7976079.209	503643.652	12.246	ROQ X
7257037	7976072.399	503643.563	12.205	ROQ X

7257038	7976071.534	503633.448	12.352	ROQ X
7257039	7976079.37	503633.177	12.374	ROQ X
7257040	7976085.924	503633.118	12.39	ROQ X
7257041	7976092.248	503633.15	12.43	ROQ X
7257042	7976092.079	503624.363	12.536	ROQ X
7257043	7976085.685	503624.407	12.476	ROQ X
7257044	7976078.459	503624.914	12.447	ROQ X
7257045	7976073.185	503625.096	12.463	ROQ X
7257046	7976072.912	503615.781	12.604	ROQ X
7257047	7976079.025	503615.792	12.669	ROQ X
7257048	7976086.473	503616.246	12.636	ROQ X
7257049	7976092.477	503616.665	12.67	ROQ X
7257050	7976092.996	503608.242	12.787	ROQ X
7257051	7976093.013	503601.605	12.93	ROQ X
7257052	7976093.322	503595.371	12.942	ROQ X
7257053	7976086.387	503597.231	12.853	ROQ X
7257054	7976086.412	503605.031	12.885	ROQ X
7257055	7976085.832	503611.789	12.717	ROQ X
7257056	7976081.131	503611.597	12.746	ROQ X
7257057	7976080.45	503605.195	12.754	ROQ X
7257058	7976080.034	503599.89	12.713	ROQ X
7257059	7976081.053	503595.104	12.462	ROQ X
7257060	7976076.413	503596.202	12.339	ROQ X
7257061	7976072.462	503598.409	12.246	ROQ X
7257062	7976068.846	503599.349	11.951	ROQ X
7257063	7976071.443	503601.99	12.494	ROQ X
7257064	7976075.876	503603.802	12.72	ROQ X
7257065	7976072.054	503608.195	12.638	ROQ X
7257066	7976077.061	503613.017	12.662	ROQ X
7257067	7976066.524	503619.321	12.596	ROQ X
7257068	7976066.609	503626.485	12.541	ROQ X
7257069	7976066.506	503633.232	12.515	ROQ X
7257070	7976066.516	503641.228	12.498	ROQ X
7257071	7976066.21	503649.986	12.526	ROQ X
7257072	7976066.855	503656.142	12.584	ROQ X
7257073	7976066.864	503660.988	12.472	ROQ X
7257074	7976063.914	503662.454	12.484	ROQ T
7257075	7976064.675	503658.375	12.529	ROQ T
7257076	7976064.503	503652.176	12.491	ROQ T
7257077	7976064.667	503645.596	12.491	ROQ T
7257078	7976064.706	503639.947	12.561	ROQ T
7257079	7976064.7	503634.01	12.548	ROQ T
7257080	7976064.677	503627.766	12.597	ROQ T
7257081	7976064.275	503622.262	12.649	ROQ T
7257082	7976063.944	503616.195	12.702	ROQ T
7257083	7976063.566	503610.467	12.643	ROQ T
7257084	7976063.324	503605.722	12.693	ROQ T

7257085	7976063.32	503605.458	12.655	ROQ C
7257086	7976066.095	503605.113	12.436	ROQ C
7257087	7976068.667	503603.448	12.359	ROQ C
7257088	7976069.664	503608.09	12.511	ROQ X
7257089	7976069.445	503612.115	12.561	ROQ X
7257090	7976069.786	503619.437	12.526	ROQ T
7257091	7976069.983	503625.524	12.476	ROQ T
7257092	7976069.874	503631.315	12.334	ROQ T
7257093	7976069.537	503636.697	12.222	ROQ T
7257094	7976069.567	503642.437	12.284	ROQ T
7257095	7976070.143	503648.079	12.219	ROQ T
7257096	7976070.766	503653.397	12.065	ROQ T
7257097	7976071.425	503657.07	12.098	ROQ T
7257098	7976073.15	503658.415	11.929	ROQ T
7257099	7976069.682	503658.912	12.582	ROQ C
7257100	7976068.725	503652.854	12.52	ROQ C
7257101	7976068.394	503644.265	12.484	ROQ C
7257102	7976068.529	503637.176	12.528	ROQ C
7257103	7976068.797	503629.248	12.537	ROQ C
7257104	7976068.832	503622.479	12.593	ROQ C
7257105	7976067.739	503613.344	12.543	ROQ X
7257106	7976066.942	503609.527	12.351	ROQ X
7257107	7976063.465	503602.555	11.684	ROQ T
7257108	7976067.53	503601.931	11.6	ROQ T
7257109	7976066.849	503598.739	11.694	ROQ T
7257110	7976068.077	503596.806	11.799	ROQ T
7257111	7976070.397	503595.26	11.948	ROQ T
7257112	7976076.542	503592.356	12.024	ROQ T
7257113	7976079.398	503592.311	12.083	ROQ T
7257114	7976082.795	503593.607	12.059	ROQ T
7257115	7976086.279	503592.136	12.278	ROQ T
7257116	7976090.841	503591.161	12.193	ROQ T
7258001	7976073.597	503664.605	12.009	ROQ X
7258003	7976070.93	503661.761	11.885	ROQ X
7258004	7976070.939	503659.284	11.893	ROQ X
7258005	7976071.751	503661.084	11.817	ROQ X
7258006	7976072.203	503662.185	11.867	ROQ X
7258007	7976068.683	503661.278	12.553	ROQ C
7258008	7976068.771	503664.294	12.496	ROQ C
7258009	7976068.745	503665.523	12.537	ROQ C
7258018	7976069.43	503668.854	12.501	ROQ C
7258019	7976063.413	503668.922	12.565	ROQ C
7258020	7976057.656	503668.831	12.593	ROQ C
7258021	7976051.124	503668.936	12.575	ROQ C
7258022	7976044.131	503668.985	12.561	ROQ C
7258023	7976036.882	503668.858	12.568	ROQ C
7258024	7976028.772	503668.882	12.644	ROQ C

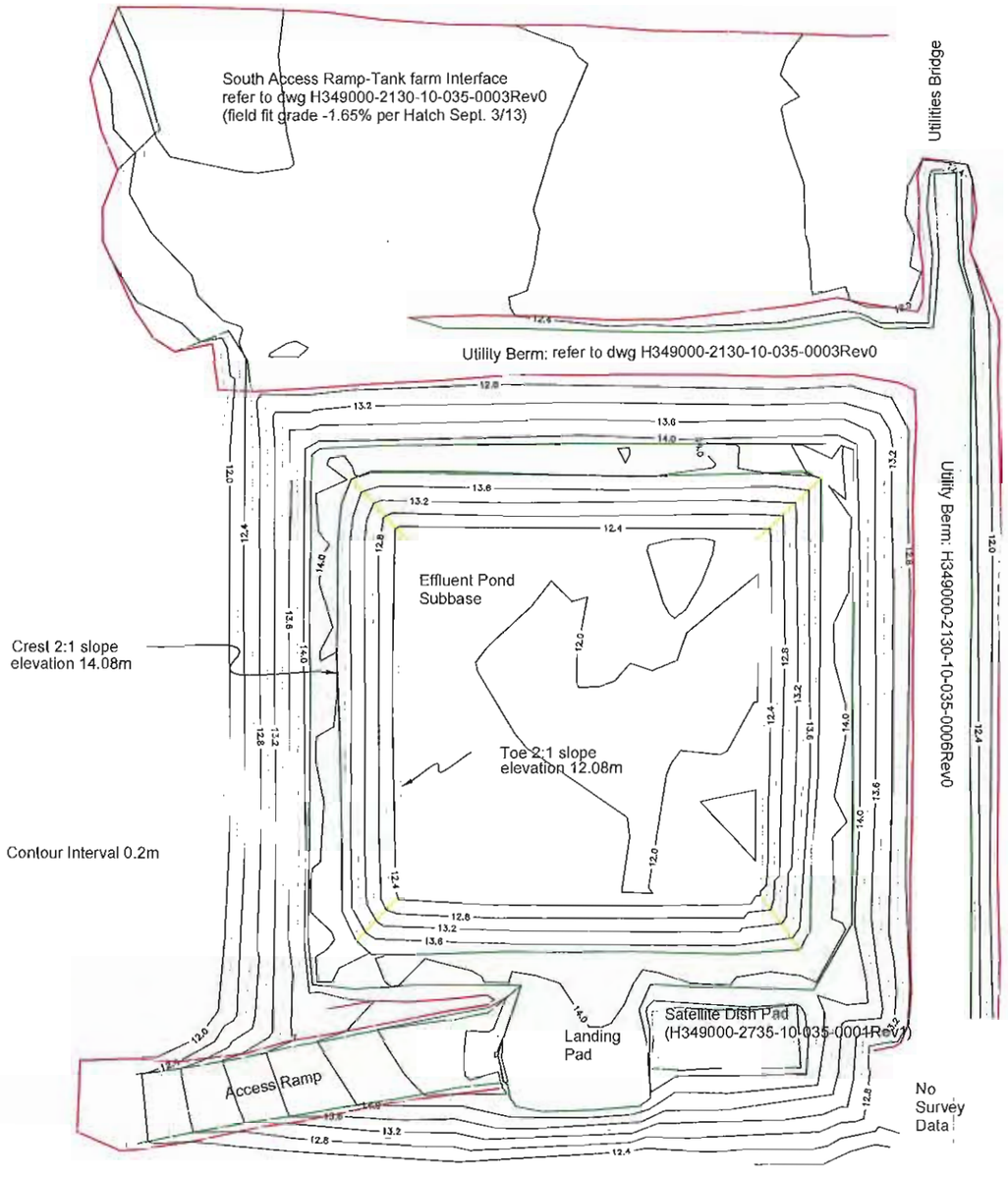
7258025	7976021.903	503668.979	12.615	ROQ C
7258026	7976017.027	503668.979	12.698	ROQ C
7258027	7976011.562	503668.959	12.704	ROQ C
7258028	7976008.033	503668.953	12.675	ROQ C
7258029	7976008.035	503671.367	11.823	ROQ T
7258030	7976012.795	503671.502	11.758	ROQ T
7258031	7976020.97	503671.261	11.688	ROQ T
7258032	7976028.663	503671.344	11.724	ROQ T
7258033	7976036.676	503671.363	11.738	ROQ T
7258034	7976043.564	503671.374	11.772	ROQ T
7258035	7976049.903	503671.506	11.797	ROQ T
7258036	7976057.13	503671.455	11.733	ROQ T
7258037	7976063.281	503671.237	11.756	ROQ T
7258038	7976067.223	503671.355	11.686	ROQ T
7258039	7976069.441	503671.3	11.716	ROQ T
7258040	7976063.294	503663.94	12.533	ROQ T
7258041	7976059.893	503664.065	12.627	ROQ T
7258042	7976052.766	503663.754	12.672	ROQ T
7258043	7976045.123	503663.876	12.712	ROQ T
7258044	7976037.987	503663.798	12.713	ROQ T
7258045	7976030.689	503663.82	12.695	ROQ T
7258046	7976024.39	503663.757	12.708	ROQ T
7258047	7976019.772	503663.594	12.681	ROQ T
7258048	7976014.297	503663.599	12.716	ROQ T
7258049	7976010.081	503663.709	12.776	ROQ T
7258050	7976007.511	503663.502	12.79	ROQ T
7258051	7976007.641	503666.403	12.735	ROQ X
7258052	7976014.93	503666.243	12.708	ROQ X
7258053	7976024.179	503666.309	12.712	ROQ X
7258054	7976030.85	503666.379	12.674	ROQ X
7258055	7976037.369	503666.428	12.63	ROQ X
7258056	7976045.167	503666.331	12.636	ROQ X
7258057	7976052.369	503666.501	12.606	ROQ X
7258058	7976058.816	503666.632	12.63	ROQ X
7258059	7976063.292	503666.643	12.494	ROQ X
7258060	7976066.622	503664.124	12.499	ROQ X
7258061	7976067.672	503667.033	12.476	ROQ X
7259101	7975995.23	503641.518	12.025	ROQ T
7259102	7975995.047	503646.274	12.012	ROQ T
7259103	7975995.244	503648.49	12.028	ROQ T
7259104	7975995.022	503652.681	11.954	ROQ T
7259105	7975994.923	503656.165	11.939	ROQ T
7259109	7976001.242	503660.594	12.597	ROQ T
7259110	7976003.842	503660.564	12.613	ROQ T
7259111	7976005.4	503660.204	12.741	ROQ T
7259112	7976006.846	503658.706	13.327	ROQ T
7259113	7976008.47	503656.798	13.855	ROQ T

7259114	7976009.726	503654.901	14.172	ROQ T
7259115	7976009.553	503650.899	14.189	ROQ T
7259116	7976009.736	503647.37	14.148	ROQ T
7259117	7976009.824	503643.285	14.194	ROQ T
7259118	7976009.743	503640.813	14.352	ROQ T
7259119	7976008.674	503640.869	14.633	ROQ C
7259120	7976006.084	503641.022	14.607	ROQ C
7259121	7976003.646	503640.811	14.639	ROQ C
7259122	7976003.485	503643.343	14.528	ROQ C
7259123	7976003.645	503646.617	14.591	ROQ C
7259124	7976003.605	503649.316	14.633	ROQ C
7259125	7976003.605	503651.965	14.636	ROQ C
7259126	7976003.647	503654.054	14.53	ROQ C
7259127	7976005.78	503653.932	14.626	ROQ C
7259128	7976008.243	503653.792	14.559	ROQ C
7259129	7976009.215	503653.749	14.412	ROQ C
7259130	7976008.789	503650.02	14.493	ROQ C
7259131	7976008.784	503646.463	14.57	ROQ C
7259132	7976009.026	503643.254	14.608	ROQ C
7259133	7976006.759	503644.106	14.611	ROQ X
7259134	7976006.27	503647.563	14.609	ROQ X
7259135	7976006.357	503650.488	14.614	ROQ X
7259136	7976006.354	503652.802	14.541	ROQ X
7259137	7976003.055	503654.534	14.404	ROQ X
7259138	7976001.574	503656.242	13.75	ROQ X
7259139	7976000.584	503651.68	13.659	ROQ X
7259140	7975999.987	503647.65	13.603	ROQ X
7259141	7975999.715	503642.177	13.521	ROQ X
7259142	7975995.656	503657.914	11.862	ROQ T
7259143	7975996.005	503660.71	11.729	ROQ T
7259144	7975996.171	503661.571	11.845	ROQ T
7259145	7975998.919	503660.738	12.513	ROQ T
7259146	7976001.356	503660.678	12.622	ROQ T
7259147	7976003.359	503660.646	12.656	ROQ T
7259148	7976005.097	503660.456	12.738	ROQ T
7259149	7976004.245	503662.867	12.615	ROQ X
7259150	7976001.088	503662.938	12.583	ROQ X
7259151	7975998.321	503662.949	12.549	ROQ X
7259152	7976005.151	503660.765	12.719	ROQ T
7259153	7976005.456	503662.199	12.714	ROQ T
7259154	7976005.852	503662.797	12.718	ROQ T
7259155	7976006.191	503657.839	13.515	ROQ X
7259156	7976003.213	503657.717	13.497	ROQ X
7259157	7976001.193	503657.426	13.499	ROQ X
7259158	7975999.502	503658.952	12.986	ROQ X
7259159	7975998.607	503660.388	12.558	ROQ X
7259160	7975997.717	503661.8	12.353	ROQ X

7261001	7976081.99	503670.96	11.807	6INCH X
7261002	7976086.044	503670.74	11.796	6INCH X
7261003	7976091.547	503670.032	11.816	6INCH X
7261004	7976094.757	503669.945	11.929	6INCH X
7261005	7976093.743	503676.36	11.786	6INCH X
7261006	7976090.646	503675.974	11.737	6INCH X
7261007	7976081.727	503700.724	11.581	6INCH X
7261008	7976085.544	503700.587	11.547	6INCH X
7261009	7976090.101	503700.498	11.541	6INCH X
7261010	7976093.775	503700.143	11.583	6INCH X
7261011	7976093.467	503695.539	11.622	6INCH X
7261012	7976089.919	503695.766	11.516	6INCH X
7261013	7976085.485	503695.711	11.521	6INCH X
7261014	7976081.119	503695.909	11.641	6INCH X
7261015	7976080.719	503689.256	11.676	6INCH X
7261016	7976084.771	503688.493	11.566	6INCH X
7261017	7976089.015	503688.259	11.523	6INCH X
7261018	7976092.872	503687.936	11.561	6INCH X
7261019	7976093.259	503683.298	11.556	6INCH X
7261020	7976088.962	503683.055	11.521	6INCH X
7261021	7976084.133	503682.886	11.586	6INCH X
7261022	7976081.1	503682.983	11.63	6INCH X
7261023	7976081.49	503677.034	11.683	6INCH X
7261024	7976085.606	503676.952	11.63	6INCH X
7261025	7976090.606	503676.81	11.64	6INCH X
7261026	7976092.98	503676.904	11.668	6INCH X
7261027	7976089.067	503674.856	11.751	6INCH X
7261028	7976084.806	503673.692	11.719	6INCH X
7261029	7976079.683	503672.747	11.665	6INCH X
7261030	7976080.006	503677.318	11.668	6INCH X
7261031	7976079.951	503683.835	11.645	6INCH X
7261032	7976079.648	503691.575	11.659	6INCH X
7261033	7976079.761	503697.705	11.658	6INCH X
7266704	7975987.427	503660.662	11.734	ROQ T
7266705	7975985.552	503658.475	11.791	ROQ T
7266706	7975984.286	503656.97	11.803	ROQ T
7266707	7975980.792	503656.076	11.79	ROQ T
7266708	7975977.727	503656.189	11.807	ROQ T
7266709	7975977.168	503658.189	11.783	ROQ T
7266710	7975977.01	503661.408	11.788	ROQ T
7266711	7975975.412	503662.014	11.876	ROQ T
7266712	7975971.872	503661.908	11.837	ROQ T
7266713	7975970.061	503662.315	11.834	ROQ T
7266714	7975969.071	503664.977	11.869	ROQ T
7266715	7975969.191	503669.374	11.861	ROQ T
7266716	7975969.97	503670.203	11.821	ROQ T
7266717	7975972.029	503670.331	11.75	ROQ T

7266718	7975976.725	503671.185	11.781	ROQ T
7266719	7975977.106	503672.822	11.789	ROQ T
7266720	7975977.136	503675.856	11.765	ROQ T
7266721	7975979.149	503677.587	11.667	ROQ T
7266722	7975984.206	503678.908	11.618	ROQ T
7266723	7975988.162	503678.601	11.547	ROQ T
7266724	7975989.819	503675.772	11.599	ROQ T
7266725	7975989.822	503672.931	11.638	ROQ T
7266726	7975989.486	503670.805	11.748	ROQ T
7266727	7975988.055	503670.569	12.285	ROQ X
7266728	7975987.512	503673.818	12.004	ROQ X
7266729	7975982.954	503673.928	12.015	ROQ X
7266730	7975977.831	503673.251	12.025	ROQ X
7266731	7975977.859	503670.228	12.348	ROQ X
7266732	7975981.358	503670.458	12.34	ROQ X
7266733	7975984.861	503670.709	12.32	ROQ X
7266734	7975988.059	503670.126	12.266	ROQ X
7266735	7975987.286	503662.369	12.324	ROQ X
7266736	7975984.526	503659.302	12.15	ROQ X
7266737	7975982.361	503659.484	12.181	ROQ X
7266738	7975977.834	503657.426	12.007	ROQ X
7266739	7975978.24	503660.157	12.248	ROQ X
7266740	7975977.821	503662.131	12.39	ROQ X
7266741	7975981.607	503662.896	12.327	ROQ X
7266742	7975980.957	503663.622	12.38	ROQ X
7266743	7975975.579	503663.657	12.411	ROQ X
7266744	7975970.96	503663.491	12.318	ROQ X
7266745	7975970.521	503666.076	12.349	ROQ X
7266746	7975970.518	503668.691	12.363	ROQ X
7266747	7975972.682	503666.339	12.435	ROQ X
7266748	7975974.153	503668.808	12.423	ROQ X
7266749	7975977.46	503669.188	12.435	ROQ X
7266750	7975977.789	503666.313	12.455	ROQ X
7266751	7975982.479	503666.067	12.433	ROQ X
7266752	7975987.574	503666.54	12.431	ROQ X
7266753	7975982.611	503669.423	12.406	ROQ X
7266754	7975979.784	503669.12	12.382	ROQ X
7266755	7975980.146	503664.705	12.403	ROQ X
7266756	7975983.984	503664.415	12.371	ROQ X
7266757	7976070.685	503665.734	12.542	ROQ C
7266758	7976074.802	503666.034	12.573	ROQ C
7266759	7976079.084	503665.741	12.622	ROQ C
7266760	7976082.284	503665.582	12.521	ROQ C
7266761	7976082.435	503667.544	12.558	ROQ C
7266762	7976078.689	503667.585	12.585	ROQ C
7266763	7976074.604	503667.8	12.53	ROQ C
7266764	7976070.88	503668.95	12.481	ROQ C

7266765	7976075.485	503668.761	12.052	ROQ T
7266766	7976078.941	503669.287	11.924	ROQ T
7266767	7976081.755	503668.959	11.997	ROQ T
7266768	7976083.143	503668.527	12.002	ROQ T
7266769	7976083.39	503666.888	11.961	ROQ T
7266770	7976083.669	503664.6	11.97	ROQ T
7266771	7976082.091	503664.141	12.066	ROQ T
7266772	7976079.535	503664.327	12.218	ROQ T
7266773	7976076.945	503664.237	12.039	ROQ T
7266774	7976074.107	503664.602	12.142	ROQ T
7266775	7976071.266	503664.666	12.116	ROQ T
7266776	7976070.175	503664.191	12.077	ROQ T



Note. For Detail location of ROQ fill sections for PADS B1,B2,B3 and Effluent Pond. Refer to pdf H349000-2130-10-015-0001_0 _V2.pdf

NOTES:

Effluent Pond Job No:2999 BIM 2.3.1.12
Pond slopes, utility berms & access ramp: Activity # 6

Primary Reference drawing H349000-2735-10-035-0001 Rev 0 (IFC) & H349000-2735-10-035-0002 Rev0(IFC)

CLIENT: Baffinland Iron Mines Corporation

PROJECT: Mary River Project, Baffin Island, Nunavut

PREPARED BY:
Nuna East Ltd.
9839 - 31 Avenue
Edmonton, AB
T6N 1C5

DRAWN BY: mc

SCALE: 1:500

DATE: Sept. 30, 2013

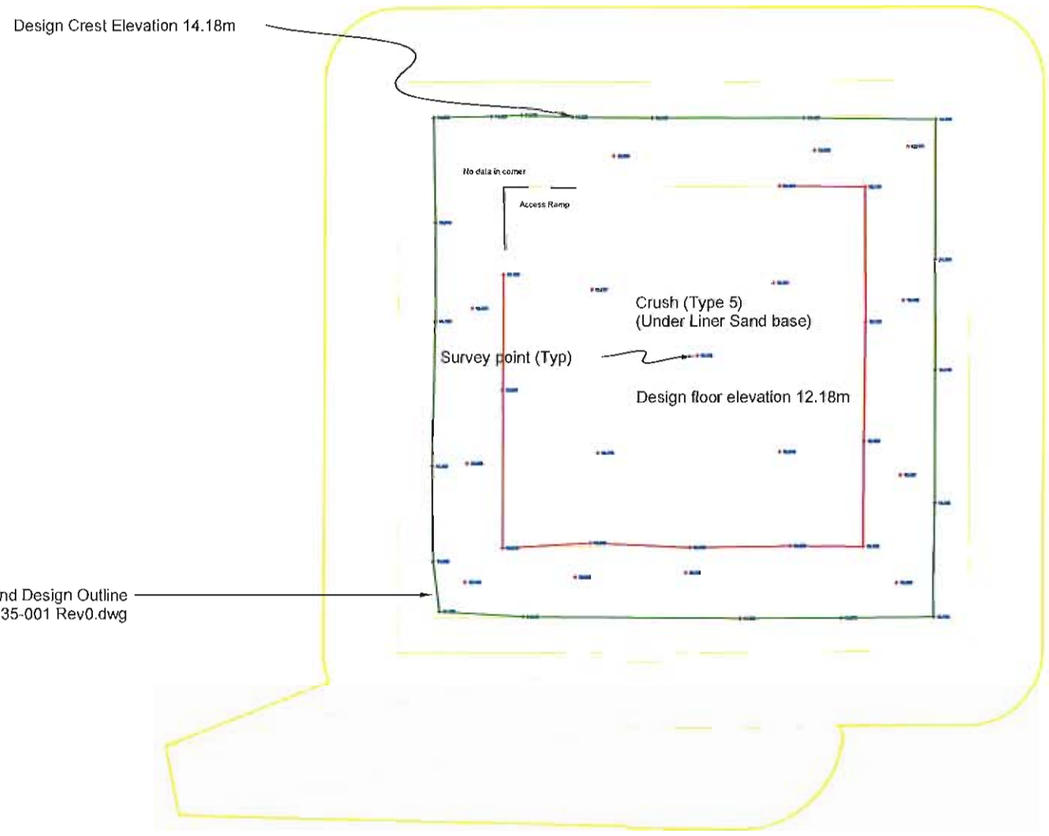
Milne Port-Effluent Pond Slopes & Utility Berms Subbase

DRAWING NAME (YYMMDD): 2999-6 Asbuilt EP & Util berms Subbase 130923.dwg

Job # 2999
Activity # 08

Point#	Northing	Easting	Elevation	Description
4196101	7976013.205	503656.122	14.144	crush crest
4196102	7976013.129	503648.193	14.076	crush crest
4196103	7976013.104	503639.517	14.122	crush crest
4196104	7976013.281	503620.908	14.146	crush crest
4196105	7976013.738	503613.757	14.168	crush crest
4196106	7976016.146	503652.94	13.009	crush slope
4196107	7976017.027	503634.829	12.78	crush slope
4196108	7976016.67	503625.362	13.028	crush slope
4196109	7976016.254	503615.948	13.142	crush slope
4196110	7976019.185	503619.137	12.216	crush toe
4196111	7976019.609	503626.655	12.202	crush toe
4196112	7976019.199	503635.171	12.163	crush toe
4196113	7976019.315	503643.831	12.223	crush toe
4196114	7976019.27	503650.068	12.192	crush toe
4196115	7976022.956	503656.217	14.161	crush crest
4196116	7976034.384	503656.22	14.148	crush crest
4196117	7976043.839	503656.212	14.179	crush crest
4196118	7976055.885	503656.204	14.19	crush crest
4196119	7976056.04	503644.925	14.167	crush crest
4196120	7976056.056	503631.83	14.145	crush crest
4196121	7976056.142	503624.964	14.181	crush crest
4196122	7976056.218	503618.024	14.189	crush crest
4196123	7976047.105	503613.286	13.944	crush crest
4196124	7976038.649	503613.331	14.124	crush crest
4196125	7976026.196	503613.093	14.154	crush crest
4196126	7976018.04	503613.216	14.15	crush crest
4196127	7976026.439	503616.068	13.05	crush crest
4196128	7976039.744	503616.479	12.981	crush slope
4196129	7976052.795	503628.555	12.939	crush slope
4196130	7976053.249	503645.814	13.098	crush slope
4196131	7976053.586	503653.856	13.241	crush slope
4196132	7976040.373	503653.46	13.182	crush slope
4196133	7976025.374	503653.251	13.127	crush slope
4196134	7976028.287	503650.12	12.126	crush toe
4196135	7976038.534	503650.236	12.121	crush toe
4196136	7976050.103	503650.153	12.11	crush toe
4196137	7976050.188	503642.83	12.164	crush toe
4196138	7976042.644	503619.122	12.186	crush toe
4196139	7976032.731	503619.05	12.207	crush toe
4196140	7976027.311	503627.267	12.178	crush spot
4196141	7976035.665	503635.757	12.182	crush spot
4196142	7976041.878	503642.317	12.191	crush spot

4196143	7976027.382	503642.906	12.218	crush spot
4196144	7976041.339	503626.711	12.227	crush spot
4197005	7976056.128	503613.111	14.034	crush crest
4197006	7976056.315	503620.583	14.118	crush crest



NOTES:

Effluent Pond Job No:2999 BIM 2.3.1.12
Pond floor & slopes Crush cover (type 5): Activity # 8

CLIENT: Baffinland Iron Mines Corporation

PROJECT: Mary River Project, Baffin Island, Nunavut

PREPARED BY:
Nuna East Ltd.
9839 - 31 Avenue
Edmonton, AB
T6N 1C5

DRAWN BY: mc

SCALE: 1:500

DATE: Sept. 30, 2013

DRAWING TITLE: **Milne Port-Effluent Pond Crush Surface below Liner Sand**

DRAWING NAME (YYMMDD): 2999-8 AsbuiltEP Crush UL 130716.dwg

Job # 2999

Activity # 10

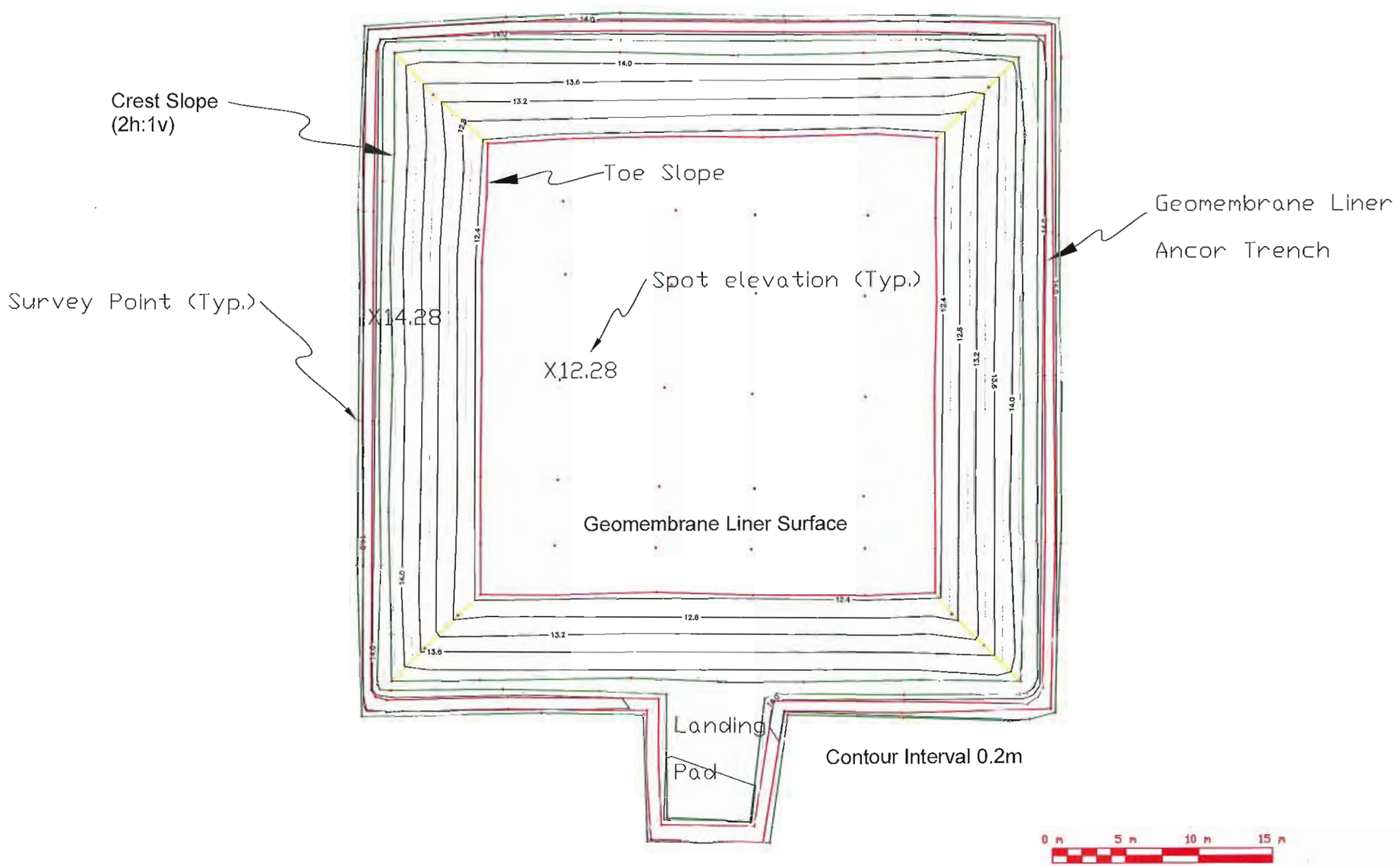
Point #	Northing	Easting	Elevation	Description
4200113	7976056.399	503612.266	14.278	Sand Crest
4200114	7976047.451	503612.31	14.253	Sand Crest
4200115	7976040.398	503612.263	14.273	Sand Crest
4200116	7976031.012	503612.19	14.293	Sand Crest
4200117	7976021.21	503612.35	14.213	Sand Crest
4200118	7976013.189	503612.165	14.281	Sand Crest
4200119	7976012.669	503612.307	14.3	Sand Crest
4200120	7976012.626	503613.079	14.303	Sand Crest
4200121	7976012.681	503620.64	14.278	Sand Crest
4200122	7976012.526	503627.201	14.199	Sand Crest
4200123	7976012.306	503631.804	14.258	Sand Crest
4200124	7976007.555	503631.852	14.413	Sand Crest
4200125	7976003.853	503631.916	14.511	Sand Crest
4200126	7976003.588	503637.531	14.474	Sand Crest
4200127	7976011.958	503638.511	14.232	Sand Crest
4200128	7976012.301	503639.304	14.192	Sand Crest
4200129	7976012.236	503648.019	14.168	Sand Crest
4200130	7976012.232	503655.942	14.215	Sand Crest
4200131	7976012.317	503656.391	14.22	Sand Crest
4200132	7976012.694	503656.845	14.269	Sand Crest
4200133	7976013.337	503657.145	14.261	Sand Crest
4200134	7976022.641	503657.088	14.255	Sand Crest
4200135	7976034.092	503657.119	14.28	Sand Crest
4200136	7976043.813	503657.093	14.246	Sand Crest
4200137	7976056.824	503657.15	14.162	Sand Crest
4200138	7976056.986	503648.774	14.206	Sand Crest
4200139	7976056.933	503639.748	14.258	Sand Crest
4200140	7976057.023	503628.539	14.234	Sand Crest
4200141	7976057.108	503620.675	14.239	Sand Crest
4200142	7976056.959	503613.172	14.282	Sand Crest
4200143	7976056.977	503612.457	14.286	Sand Crest
4200144	7976057.128	503612.097	13.983	Sand Toe
4200145	7976056.315	503611.842	13.968	Sand Toe
4200146	7976056.126	503611.113	13.918	Sand Toe
4200147	7976045.356	503611.711	13.91	Sand Toe
4200148	7976045.363	503611.026	13.916	Sand Toe
4200149	7976040.407	503611.715	13.934	Sand Toe
4200150	7976040.528	503611.108	13.907	Sand Toe
4200151	7976031.048	503611.742	13.965	Sand Toe
4200152	7976031.086	503611.025	13.93	Sand Toe
4200153	7976021.158	503611.747	13.886	Sand Toe
4200154	7976021.169	503611.168	13.906	Sand Toe

4200155	7976012.665	503611.749	13.947	Sand Toe
4200156	7976012.562	503611.139	13.937	Sand Toe
4200157	7976012.183	503612.042	13.917	Sand Toe
4200158	7976011.287	503611.43	13.946	Sand Toe
4200159	7976011.178	503612.774	13.93	Sand Toe
4200160	7976011.968	503612.804	13.913	Sand Toe
4200161	7976012.151	503620.98	13.906	Sand Toe
4200162	7976011.333	503620.99	13.863	Sand Toe
4200163	7976012.076	503627.195	13.957	Sand Toe
4200164	7976011.238	503627.131	13.946	Sand Toe
4200165	7976011.214	503630.458	14.03	Sand Toe
4200166	7976011.994	503631.259	14.066	Sand Toe
4200167	7976007.559	503631.29	14.083	Sand Toe
4200168	7976007.625	503630.414	14.031	Sand Toe
4200169	7976003.365	503631.503	14.228	Sand Toe
4200170	7976002.363	503630.78	14.22	Sand Toe
4200171	7976002.133	503638.411	14.149	Sand Toe
4200172	7976003.252	503637.793	14.151	Sand Toe
4200173	7976011.803	503639.111	13.956	Sand Toe
4200174	7976011.118	503639.824	13.95	Sand Toe
4200175	7976011.778	503648.01	13.866	Sand Toe
4200176	7976010.989	503647.941	13.892	Sand Toe
4200177	7976011.571	503656.448	13.78	Sand Toe
4200178	7976012.048	503657.119	13.787	Sand Toe
4200179	7976012.707	503657.526	13.781	Sand Toe
4200180	7976011.23	503658.057	13.736	Sand Toe
4200181	7976022.616	503657.657	13.854	Sand Toe
4200182	7976022.516	503658.346	13.885	Sand Toe
4200183	7976034.009	503657.622	13.887	Sand Toe
4200184	7976033.98	503658.235	13.873	Sand Toe
4200185	7976043.787	503657.671	13.834	Sand Toe
4200186	7976043.718	503658.152	13.837	Sand Toe
4200187	7976057.169	503657.609	13.811	Sand Toe
4200188	7976057.934	503658.051	13.895	Sand Toe
4200189	7976057.492	503648.868	13.885	Sand Toe
4200190	7976058.248	503648.928	13.885	Sand Toe
4200191	7976057.507	503639.649	13.837	Sand Toe
4200192	7976058.198	503639.785	13.83	Sand Toe
4200193	7976057.637	503628.541	13.915	Sand Toe
4200194	7976058.297	503628.576	13.847	Sand Toe
4200195	7976057.6	503620.325	13.9	Sand Toe
4200196	7976058.31	503620.445	13.913	Sand Toe
4200197	7976057.8	503611.284	13.998	Sand Toe
4200198	7976058.016	503611.006	14.26	Sand Crest
4200199	7976045.433	503610.651	14.199	Sand Crest
4200200	7976040.465	503610.812	14.157	Sand Crest
4200201	7976031.1	503610.773	14.196	Sand Crest

4200202	7976021.2	503610.748	14.107	Sand Crest
4200203	7976010.851	503611.117	14.26	Sand Crest
4200204	7976011.052	503623.29	14.151	Sand Crest
4200205	7976010.901	503630.242	14.22	Sand Crest
4200206	7976002.23	503630.525	14.485	Sand Crest
4200207	7976002.11	503638.872	14.361	Sand Crest
4200208	7976010.847	503640.071	14.167	Sand Crest
4200209	7976010.677	503647.989	14.084	Sand Crest
4200210	7976010.435	503655.22	14.109	Sand Crest
4200211	7976010.52	503656.61	13.935	Sand Crest
4200212	7976010.977	503658.355	13.836	Sand Crest
4200213	7976016.633	503658.479	14.066	Sand Crest
4200214	7976022.508	503658.718	14.18	Sand Crest
4200215	7976034.207	503658.72	14.201	Sand Crest
4200216	7976043.59	503658.564	14.221	Sand Crest
4200217	7976055.687	503658.7	14.188	Sand Crest
4200218	7976058.327	503658.557	14.206	Sand Crest
4200219	7976058.651	503648.734	14.239	Sand Crest
4200220	7976058.62	503639.649	14.238	Sand Crest
4200221	7976058.864	503628.481	14.245	Sand Crest
4200222	7976058.619	503620.641	14.152	Sand Crest
4200223	7976057.963	503611.031	14.247	Sand Crest
7197100	7976019.185	503650.15	12.284	Sand Toe
7197101	7976019.012	503645.329	12.289	Sand Toe
7197102	7976019.058	503637.654	12.267	Sand Toe
7197103	7976019.272	503631.145	12.276	Sand Toe
7197104	7976019.137	503624.232	12.292	Sand Toe
7197105	7976019.192	503619.149	12.291	Sand Toe
7197106	7976022.661	503619.11	12.279	Sand Toe
7197107	7976027.267	503619.088	12.316	Sand Toe
7197108	7976033.861	503619.113	12.273	Sand Toe
7197109	7976041.866	503619.092	12.246	Sand Toe
7197110	7976046.297	503619.412	12.278	Sand Toe
7197111	7976049.986	503619.471	12.308	Sand Toe
7197112	7976050.281	503624.581	12.287	Sand Toe
7197113	7976050.408	503632.738	12.272	Sand Toe
7197114	7976050.333	503638.242	12.248	Sand Toe
7197115	7976050.519	503646.016	12.253	Sand Toe
7197116	7976050.22	503650.229	12.256	Sand Toe
7197117	7976044.76	503650.137	12.243	Sand Toe
7197118	7976039	503650.245	12.294	Sand Toe
7197119	7976032.557	503650.098	12.285	Sand Toe
7197120	7976025.973	503650.124	12.28	Sand Toe
7197121	7976022.186	503650.164	12.279	Sand Toe
7197122	7976022.235	503645.336	12.241	Sand Spot
7197123	7976025.796	503645.228	12.246	Sand Spot
7197124	7976032.579	503645.343	12.251	Sand Spot

7197125	7976039.472	503645.299	12.236	Sand Spot
7197126	7976044.966	503645.48	12.268	Sand Spot
7197127	7976045.014	503637.762	12.338	Sand Spot
7197128	7976039.701	503637.832	12.297	Sand Spot
7197129	7976032.796	503637.601	12.288	Sand Spot
7197130	7976026.326	503637.744	12.288	Sand Spot
7197131	7976022.195	503637.549	12.279	Sand Spot
7197132	7976022.309	503631.073	12.305	Sand Spot
7197133	7976026.496	503631.3	12.25	Sand Spot
7197134	7976033.251	503631.647	12.261	Sand Spot
7197135	7976040.269	503632.1	12.324	Sand Spot
7197136	7976045.35	503632.391	12.319	Sand Spot
7197137	7976046.023	503624.61	12.266	Sand Spot
7197138	7976041.026	503624.778	12.308	Sand Spot
7197139	7976033.848	503624.427	12.284	Sand Spot
7197140	7976027.002	503624.336	12.255	Sand Spot
7197141	7976022.518	503624.136	12.292	Sand Spot
7197142	7976017.77	503617.62	12.689	Sand Spot
7197143	7976015.518	503615.383	13.503	Sand Spot
7197144	7976017.724	503651.3	12.656	Sand Spot
7197145	7976015.554	503653.512	13.363	Sand Spot
7197146	7976051.902	503651.917	12.721	Sand Spot
7197147	7976053.655	503653.76	13.309	Sand Spot
7197148	7976051.401	503617.91	12.742	Sand Spot
7197149	7976053.331	503615.723	13.359	Sand Spot
7197600	7976056.193	503613.071	14.271	Sand Crest
7197601	7976049.305	503613.11	14.301	Sand Crest
7197602	7976041.808	503612.853	14.281	Sand Crest
7197603	7976034.166	503613.093	14.284	Sand Crest
7197604	7976024.836	503612.873	14.284	Sand Crest
7197605	7976016.503	503613.104	14.263	Sand Crest
7197606	7976013.253	503613.136	14.362	Sand Crest
7197607	7976013.31	503619.086	14.275	Sand Crest
7197608	7976013.418	503629.37	14.24	Sand Crest
7197609	7976013.162	503635.302	14.28	Sand Crest
7197610	7976013.103	503641.161	14.271	Sand Crest
7197611	7976013.234	503649.141	14.242	Sand Crest
7197612	7976013.131	503655.987	14.232	Sand Crest
7197613	7976019.931	503656.208	14.307	Sand Crest
7197614	7976024.347	503656.142	14.308	Sand Crest
7197615	7976032.016	503656.178	14.283	Sand Crest
7197616	7976043.16	503656.024	14.22	Sand Crest
7197617	7976050.404	503656.214	14.259	Sand Crest
7197618	7976055.705	503655.8	14.143	Sand Crest
7197619	7976056.21	503650.452	14.279	Sand Crest
7197620	7976056.057	503645.184	14.284	Sand Crest
7197621	7976055.931	503636.597	14.237	Sand Crest

7197622	7976056.175	503628.495	14.298	Sand Crest
7197623	7976056.305	503620.626	14.289	Sand Crest
7197624	7976056.361	503614.783	14.234	Sand Crest



NOTES:

Job No:2999 Bim Ref # 2.3.1.12
Pond floor & berms-Type 9: Activity #10

CLIENT: Baffinland Iron Mines Corporation

PROJECT: Mary River Project, Baffin Island, Nunavut

PREPARED BY:
Nuna East Ltd.
9839 - 31 Avenue
Edmonton, AB
T6N 1C5

DRAWN BY: mc

SCALE: 1:300

DATE: Sept. 30, 2013

DRAWING TITLE:
Milne Port-Effluent Pond Under Liner Surface

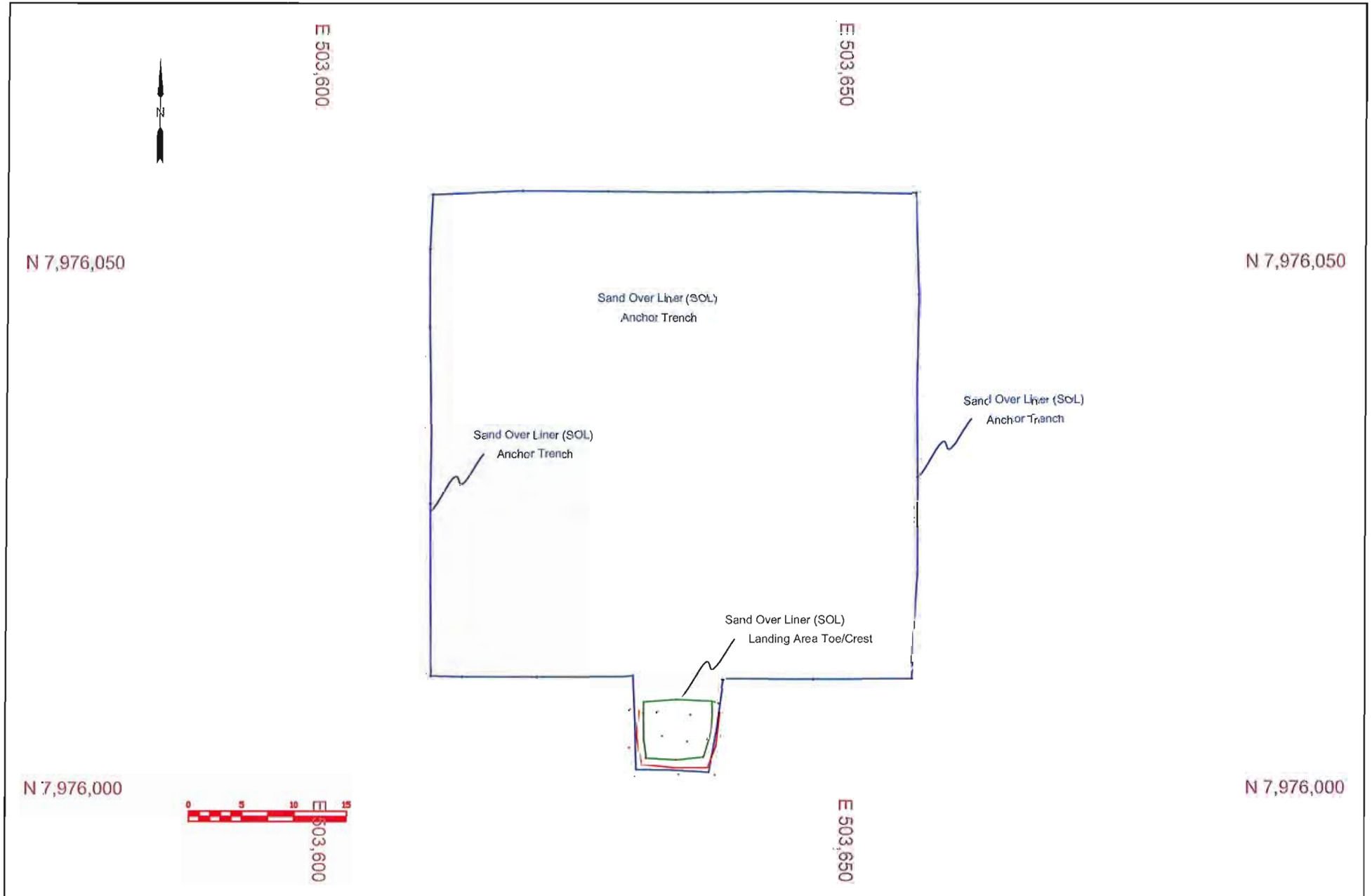
DRAWING NAME (YYMMDD): 2999-10 EP Sand UL 130719.dwg

Job # 2999

Activity # 15

Point #	Northing	Easting	Elevation	Description
1204210	7976008.53	503630.561	14.129	Sand Spot
1204211	7976004.896	503630.466	14.212	Sand Spot
1204212	7976002.318	503631.11	14.201	Sand Spot
1204213	7976002.339	503635.131	14.211	Sand Spot
1204214	7976002.304	503638.587	14.228	Sand Spot
1204215	7976005.976	503639.08	14.037	Sand Spot
1204216	7976008.175	503639.331	13.981	Sand Spot
1204217	7976008.182	503639.045	14.061	SAND Toe
1204218	7976005.042	503638.694	14.113	SAND Toe
1204219	7976003.015	503637.922	14.202	SAND Toe
1204220	7976002.986	503634.626	14.197	5AND Toe
1204221	7976003.32	503631.634	14.258	SAND Toe
1204222	7976005.944	503631.165	14.215	SAND Toe
1204223	7976008.354	503631.391	14.185	SAND Toe
1204224	7976008.176	503631.766	14.482	SAND Crest
1204225	7976005.706	503631.823	14.561	SAND Crest
1204226	7976003.889	503632.05	14.608	SAND Crest
1204227	7976003.734	503634.936	14.559	SAND Crest
1204228	7976004.006	503637.487	14.565	SAND Crest
1204229	7976006.538	503638.242	14.545	SAND Crest
1204230	7976008.284	503638.302	14.449	SAND Crest
1204231	7976008.007	503636.259	14.354	Sand Spot
1204232	7976005.469	503635.975	14.482	Sand Spot
1204233	7976005.978	503633.574	14.504	Sand Spot
1204234	7976008.319	503633.167	14.455	Sand Spot
1205002	7976009.231	503631.806	14.558	SAND Crest
1205003	7976009.45	503634.88	14.405	SAND Crest
1205004	7976009.289	503638.269	14.427	SAND Crest
1205005	7976009.083	503638.911	14.344	SAND Crest
4204004	7976011.638	503629.996	14.093	SAND TRENCH
4204005	7976011.616	503621.762	14.066	SAND TRENCH
4204006	7976011.646	503614.613	14.023	SAND TRENCH
4204007	7976011.727	503611.656	14.066	SAND TRENCH
4204008	7976020.289	503611.582	14.019	SAND TRENCH
4204009	7976028.065	503611.529	13.992	SAND TRENCH
4204010	7976036.496	503611.602	14.086	SAND TRENCH
4204011	7976044.883	503611.454	14.088	SAND TRENCH
4204012	7976052.305	503611.435	14.014	SAND TRENCH
4204013	7976057.49	503611.655	14.117	SAND TRENCH
4204014	7976057.861	503620.195	14.072	SAND TRENCH
4204015	7976057.798	503628.345	14.045	SAND TRENCH
4204016	7976057.722	503637.843	14.044	SAND TRENCH

4204017	7976057.817	503645.629	14.044	SAND TRENCH
4204018	7976057.572	503657.661	14.049	SAND TRENCH
4204019	7976047.831	503657.97	14.049	SAND TRENCH
4204020	7976038.699	503657.826	14.126	SAND TRENCH
4204021	7976030.568	503657.894	14.09	SAND TRENCH
4204022	7976021.339	503657.9	14.053	SAND TRENCH
4204023	7976011.442	503657.278	14.011	SAND TRENCH
4204024	7976011.401	503647.956	14.02	SAND TRENCH
4204025	7976011.438	503639.376	14.082	SAND TRENCH
4204026	7976006.569	503638.721	14.188	SAND TRENCH
4204027	7976002.57	503638.006	14.265	SAND TRENCH
4204028	7976002.785	503634.043	14.261	SAND TRENCH
4204029	7976002.826	503631.122	14.332	SAND TRENCH
4204030	7976007.275	503631.003	14.2	SAND TRENCH
4204031	7976011.739	503630.796	14.138	SAND TRENCH



NOTES:	CLIENT: Baffinland Iron Mines Corporation	PREPARED BY: Nuna East Ltd. 9839 - 31 Avenue Edmonton, AB T6N 1C5	NUNA		DRAWING TITLE: **Effluent Pond Sand Over Liner**
	PROJECT: Mary River Project, Baffin Island, Nunavut Job#2999 Activity#15	DRAWN BY: GM	SCALE: 1 : 500 (metric)	DATE: Sept 2,2013	DRAWING NAME (YYMMDD): 2999-15 EP Sand OL.dwg

Job # 2999

Activity # 17

Point #	Northing	Easting	Elevation	Description
7197100	7976019.185	503650.15	12.284	Sand Toe
7197101	7976019.012	503645.329	12.289	Sand Toe
7197102	7976019.058	503637.654	12.267	Sand Toe
7197103	7976019.272	503631.145	12.276	Sand Toe
7197104	7976019.137	503624.232	12.292	Sand Toe
7197105	7976019.192	503619.149	12.291	Sand Toe
7197106	7976022.661	503619.11	12.279	Sand Toe
7197107	7976027.267	503619.088	12.316	Sand Toe
7197108	7976033.861	503619.113	12.273	Sand Toe
7197109	7976041.866	503619.092	12.246	Sand Toe
7197110	7976046.297	503619.412	12.278	Sand Toe
7197111	7976049.986	503619.471	12.308	Sand Toe
7197112	7976050.281	503624.581	12.287	Sand Toe
7197113	7976050.408	503632.738	12.272	Sand Toe
7197114	7976050.333	503638.242	12.248	Sand Toe
7197115	7976050.519	503646.016	12.253	Sand Toe
7197116	7976050.22	503650.229	12.256	Sand Toe
7197117	7976044.76	503650.137	12.243	Sand Toe
7197118	7976039	503650.245	12.294	Sand Toe
7197119	7976032.557	503650.098	12.285	Sand Toe
7197120	7976025.973	503650.124	12.28	Sand Toe
7197121	7976022.186	503650.164	12.279	Sand Toe
7197122	7976022.235	503645.336	12.241	Sand Spot
7197123	7976025.796	503645.228	12.246	Sand Spot
7197124	7976032.579	503645.343	12.251	Sand Spot
7197125	7976039.472	503645.299	12.236	Sand Spot
7197126	7976044.966	503645.48	12.268	Sand Spot
7197127	7976045.014	503637.762	12.338	Sand Spot
7197128	7976039.701	503637.832	12.297	Sand Spot
7197129	7976032.796	503637.601	12.288	Sand Spot
7197130	7976026.326	503637.744	12.288	Sand Spot
7197131	7976022.195	503637.549	12.279	Sand Spot
7197132	7976022.309	503631.073	12.305	Sand Spot
7197133	7976026.496	503631.3	12.25	Sand Spot
7197134	7976033.251	503631.647	12.261	Sand Spot
7197135	7976040.269	503632.1	12.324	Sand Spot
7197136	7976045.35	503632.391	12.319	Sand Spot
7197137	7976046.023	503624.61	12.266	Sand Spot
7197138	7976041.026	503624.778	12.308	Sand Spot
7197139	7976033.848	503624.427	12.284	Sand Spot
7197140	7976027.002	503624.336	12.255	Sand Spot
7197141	7976022.518	503624.136	12.292	Sand Spot

7197142	7976017.77	503617.62	12.689	Sand Spot
7197143	7976015.518	503615.383	13.503	Sand Spot
7197144	7976017.724	503651.3	12.656	Sand Spot
7197145	7976015.554	503653.512	13.363	Sand Spot
7197146	7976051.902	503651.917	12.721	Sand Spot
7197147	7976053.655	503653.76	13.309	Sand Spot
7197148	7976051.401	503617.91	12.742	Sand Spot
7197149	7976053.331	503615.723	13.359	Sand Spot
8229101	7975996.445	503596.781	12.078	ROQT
8229102	7975995.713	503602.668	11.943	ROQT
8229103	7975995.276	503609.262	12.072	ROQT
8229104	7975994.527	503615.796	12.045	ROQT
8229105	7975994.673	503623.827	12.077	ROQT
8229106	7975994.947	503632.559	12.019	ROQT
8229107	7975995.551	503639.751	12.002	ROQT
8229108	7975996.614	503643.963	11.942	ROQT
8229109	7975999.071	503645.889	11.928	ROQT
8229110	7976001.114	503647.549	11.802	ROQT
8229111	7976002.395	503651.994	11.784	ROQT
8229112	7976002.796	503656.059	11.873	ROQT
8229113	7976003.105	503661.087	11.819	ROQT
8229114	7976003.135	503665.115	11.778	ROQT
8229115	7976003.578	503668.416	11.833	ROQT
8229116	7976010.376	503669.039	11.799	ROQT
8229117	7976019.139	503669.268	11.803	ROQT
8229118	7976029.36	503669.745	11.794	ROQT
8229120	7976040.08	503668.781	11.735	ROQT
8229121	7976047.136	503668.99	11.783	ROQT
8229122	7976055.962	503669.006	11.755	ROQT
8229123	7976061.949	503669.104	11.744	ROQT
8229124	7976066.217	503665.876	11.713	ROQT
8229125	7976067.641	503660.259	11.366	ROQT
8229126	7976069.323	503653.807	11.153	ROQT
8229127	7976069.178	503645.709	11.164	ROQT
8229128	7976068.654	503637.035	11.245	ROQT
8229129	7976068.759	503628.657	11.347	ROQT
8229130	7976068.511	503619.733	11.408	ROQT
8229131	7976067.379	503611.731	11.482	ROQT
8229132	7976066.317	503604.941	11.615	ROQT
8229133	7976065.387	503602.626	11.69	ROQT
8229134	7976057.223	503602.79	11.559	ROQT
8229135	7976049.579	503602.514	11.645	ROQT
8229136	7976041.506	503602.727	11.613	ROQT
8229137	7976033.06	503602.753	11.602	ROQT
8229138	7976025.58	503602.758	11.607	ROQT
8229139	7976017.493	503602.881	11.706	ROQT
8229140	7976010.861	503602.304	11.752	ROQT

8229141	7976007.882	503601.853	11.816	ROQT
8229142	7976006.831	503601.319	11.855	ROQT
8229143	7976005.328	503598.281	11.806	ROQT
8229145	7976004.382	503590.904	12.112	ROQT
8229146	7975998.102	503590.677	12.203	ROQT
8229147	7975996.461	503594.407	12.133	ROQT
8229148	7976003.097	503591.614	12.162	CRUSHX
8229149	7976000.788	503591.929	12.269	CRUSHX
8229150	7975998.105	503592.099	12.232	CRUSHX
8229151	7975995.812	503592.168	12.087	CRUSHX
8229152	7975996.55	503596.036	12.139	CRUSHT
8229153	7975997.095	503596.033	12.311	CRUSHC
8229154	7975998.04	503595.998	12.431	CRUSHX
8229155	7976000.502	503595.997	12.547	CRUSHX
8229156	7976003.212	503595.887	12.345	CRUSHC
8229157	7976004.555	503595.602	12.09	CRUSHT
8229158	7976004.311	503599.521	12.393	CRUSHT
8229159	7976003.664	503599.584	12.795	CRUSHC
8229160	7976002.514	503599.844	12.856	CRUSHX
8229161	7976001.325	503600.081	12.882	CRUSHX
8229162	7975999.164	503600.509	12.833	CRUSHX
8229163	7975998.055	503600.733	12.796	CRUSHC
8229164	7975997.297	503600.926	12.423	CRUSHT
8229165	7975998.46	503606.193	12.942	CRUSHT
8229166	7975999.017	503606.008	13.268	CRUSHC
8229167	7976000.027	503605.812	13.301	CRUSHX
8229168	7976001.986	503605.634	13.371	CRUSHX
8229169	7976003.932	503605.295	13.402	CRUSHX
8229170	7976004.637	503605.181	13.418	CRUSHC
8229171	7976004.974	503605.116	13.231	CRUSHT
8229172	7976006.109	503609.006	13.551	CRUSHT
8229173	7976005.561	503609.154	13.785	CRUSHC
8229174	7976004.461	503609.388	13.749	CRUSHX
8229175	7976002.877	503609.601	13.733	CRUSHX
8229176	7976000.975	503609.811	13.727	CRUSHX
8229177	7975999.614	503610.065	13.696	CRUSHC
8229178	7975999.057	503610.247	13.307	CRUSHT
8229179	7975999.797	503613.725	13.714	CRUSHT
8229180	7976000.276	503613.736	13.877	CRUSHC
8229181	7976002.032	503613.565	13.958	CRUSHX
8229182	7976004.553	503613.287	14.074	CRUSHX
8229183	7976006.301	503613.075	14.14	CRUSHC
8229184	7976006.745	503612.887	13.89	CRUSHT
8229185	7976007.585	503617.256	14.245	CRUSHT
8229186	7976007.155	503617.272	14.43	CRUSHC
8229187	7976005.983	503617.517	14.371	CRUSHX
8229188	7976003.548	503617.978	14.341	CRUSHX

8229189	7976001.984	503618.255	14.318	CRUSHX
8229190	7976000.951	503618.286	14.276	CRUSHC
8229191	7976000.725	503618.309	14.138	CRUSHT
8229192	7976001.454	503623.923	14.332	CRUSHT
8229193	7976001.996	503623.845	14.55	CRUSHC
8229194	7976003.252	503623.816	14.569	CRUSHX
8229195	7976005.414	503623.718	14.626	CRUSHX
8229196	7976007.991	503623.381	14.613	CRUSHC
8229197	7976008.759	503623.321	14.214	CRUSHT
8229198	7976009.278	503626.526	14.166	CRUSHT
8229199	7976008.584	503626.588	14.726	CRUSHC
8229200	7976007.28	503626.759	14.713	CRUSHX
8229201	7976005.091	503627.064	14.71	CRUSHX
8229202	7976002.92	503627.498	14.738	CRUSHX
8229203	7976002.401	503627.545	14.702	CRUSHC
8229204	7976001.913	503627.546	14.523	CRUSHT
8229205	7976001.288	503630.823	14.368	CRUSHT
8229206	7976002.596	503630.657	14.834	CRUSHC
8229207	7976004.057	503630.497	14.844	CRUSHX
8229208	7976007.474	503630.348	14.797	CRUSHX
8229209	7976008.854	503630.297	14.803	CRUSHX
8229210	7976009.499	503630.297	14.772	CRUSHC
8229211	7976010.694	503630.245	14.331	CRUSHT
8229212	7976010.816	503634.165	14.342	CRUSHT
8229213	7976009.361	503633.971	14.776	CRUSHC
8229214	7976007.684	503633.886	14.836	CRUSHX
8229215	7976005.101	503634.042	14.892	CRUSHX
8229216	7976003.315	503634.08	14.879	CRUSHX
8229217	7976002.822	503634.156	14.876	CRUSHC
8229218	7976000.811	503634.261	14.17	CRUSHT
8229219	7976001.041	503637.183	14.191	CRUSHT
8229220	7976003.109	503637.206	14.936	CRUSHC
8229221	7976005.482	503637.117	14.915	CRUSHX
8229222	7976008.295	503637.313	14.804	CRUSHX
8229223	7976009.458	503637.412	14.733	CRUSHC
8229224	7976010.676	503637.354	14.32	CRUSHT
8229225	7976010.384	503639.689	14.358	CRUSHT
8229226	7976009.498	503640.665	14.389	CRUSHT
8229227	7976009.376	503639.598	14.818	CRUSHC
8229228	7976008.048	503639.779	14.83	CRUSHC
8229229	7976005.578	503639.574	14.897	CRUSHC
8229230	7976005.533	503640.954	14.374	CRUSHT
8229231	7976003.607	503639.639	14.974	CRUSHC
8229232	7976003.633	503640.838	14.445	CRUSHT
8229233	7976003.519	503639.563	14.953	CRUSHC
8229234	7976002.082	503639.716	14.418	CRUSHT
8229235	7976004.716	503638.276	14.907	BARRICADE

8229236	7976004.74	503637.698	14.89	BARRICADE
8229237	7976007.756	503637.781	14.84	BARRICADE
8229238	7976007.744	503638.404	14.868	BARRICADE
8229239	7976008.379	503637.093	14.822	BARRICADE
8229240	7976009.01	503637.09	14.821	BARRICADE
8229241	7976009.051	503634.109	14.81	BARRICADE
8229242	7976008.43	503634.092	14.837	BARRICADE
8229243	7976002.991	503626.699	14.753	BARRICADE
8229244	7976002.4	503626.747	14.755	BARRICADE
8229245	7976002.643	503623.713	14.566	BARRICADE
8229246	7976002.043	503623.768	14.548	BARRICADE
8229247	7976001.95	503619.636	14.388	BARRICADE
8229248	7976001.332	503619.738	14.367	BARRICADE
8229249	7976001.541	503616.647	14.187	BARRICADE
8229250	7976000.942	503616.721	14.171	BARRICADE
8229251	7976000.912	503612.794	13.863	BARRICADE
8229252	7976000.311	503612.886	13.883	BARRICADE
8229253	7976000.481	503609.804	13.69	BARRICADE
8229254	7975999.877	503609.885	13.667	BARRICADE
8229255	7975999.462	503604.882	13.202	BARRICADE
8229256	7975998.858	503604.989	13.153	BARRICADE
8229257	7975998.928	503601.937	12.88	BARRICADE
8229258	7975998.286	503602.047	12.867	BARRICADE
8229259	7976012.297	503630.75	14.249	LINERX
8229260	7976012.459	503639.616	14.196	LINERX
8229261	7976012.455	503639.423	14.201	CRUSHT
8229262	7976012.124	503638.643	14.21	CRUSHT
8229263	7976011.164	503638.474	14.223	CRUSHT
8229264	7976011.099	503638.797	14.199	CRUSHX
8229265	7976011.858	503638.976	14.175	CRUSHX
8229266	7976011.949	503639.515	14.235	CRUSHX
8229267	7976010.838	503638.417	14.215	LINERX
8229268	7976011.948	503638.631	14.225	LINERX
8229269	7976012.379	503638.733	14.173	LINERX
8229270	7976013.302	503638.515	14.201	LINERX
8229271	7976011.042	503635.688	14.304	LINERX
8229272	7976011.931	503635.627	14.232	LINERX
8229273	7976013.413	503635.614	14.2	LINERX
8229274	7976011.106	503633.162	14.308	LINERX
8229275	7976012.199	503633.206	14.265	LINERX
8229276	7976013.057	503633.279	14.254	LINERX
8229277	7976012.303	503631.753	14.246	LINERX
8229278	7976010.845	503631.764	14.311	LINERX
8229279	7976011.1	503629.909	14.218	CRUSHX
8229280	7976012.348	503629.931	14.211	CRUSHC
8229281	7976012.454	503629.918	14.198	CRUSHT
8229282	7976012.881	503629.922	14.201	LINERX

8229283	7976013.651	503629.953	14.168	LINERC
8229284	7976009.725	503627.107	14.1	CRUSHT
8229285	7976009.847	503626.935	14.112	CRUSHT
8229286	7976010.15	503626.434	14.135	CRUSHT
8229287	7976009.926	503627.484	14.296	CRUSHC
8229288	7976010.148	503626.749	14.302	CRUSHC
8229289	7976010.486	503626.699	14.33	CRUSHC
8229290	7976011.547	503626.686	14.227	CRUSHX
8229291	7976012.358	503626.645	14.251	CRUSHC
8229292	7976012.53	503626.656	14.186	CRUSHT
8229293	7976012.958	503626.646	14.172	LINERX
8229294	7976013.442	503626.627	14.168	LINERC
8229295	7976009.26	503623.758	14.073	CRUSHX
8229296	7976009.85	503623.7	14.044	CRUSHT
8229297	7976010.465	503623.644	14.317	CRUSHC
8229298	7976011.463	503623.574	14.241	CRUSHX
8229299	7976012.336	503623.533	14.181	CRUSHC
8229300	7976012.465	503623.542	14.169	CRUSHT
8229301	7976012.882	503623.542	14.155	LINERX
8229302	7976013.46	503623.564	14.161	LINERC
8229303	7976008.838	503619.625	14.016	CRUSHX
8229304	7976009.543	503619.645	14.026	CRUSHT
8229305	7976010.439	503619.638	14.301	CRUSHC
8229306	7976011.527	503619.614	14.247	CRUSHX
8229307	7976012.398	503619.72	14.248	CRUSHC
8229308	7976012.546	503619.691	14.242	CRUSHT
8229309	7976012.964	503619.66	14.254	LINERX
8229310	7976013.439	503619.634	14.176	LINERC
8229311	7976008.667	503616.761	13.941	CRUSHX
8229312	7976009.228	503616.657	13.968	CRUSHX
8229313	7976009.653	503616.665	14.001	CRUSHT
8229314	7976010.422	503616.717	14.31	CRUSHC
8229315	7976011.411	503616.622	14.259	CRUSHX
8229316	7976012.127	503616.624	14.268	CRUSHX
8229317	7976012.384	503616.641	14.239	CRUSHC
8229318	7976012.423	503616.632	14.257	CRUSHT
8229319	7976012.977	503616.65	14.253	LINERX
8229320	7976013.391	503616.634	14.236	LINERC
8229321	7976008.151	503614.164	13.759	CRUSHX
8229322	7976008.762	503614.048	13.773	CRUSHX
8229323	7976007.692	503612.612	13.682	CRUSHX
8229324	7976008.543	503612.611	13.705	CRUSHX
8229325	7976008.98	503612.583	13.808	CRUSHT
8229326	7976010.256	503612.601	14.339	CRUSHC
8229327	7976011.353	503612.538	14.233	CRUSHX
8229328	7976012.301	503612.538	14.245	CRUSHC
8229329	7976012.399	503612.504	14.21	CRUSHT

8229330	7976012.547	503612.518	14.287	LINERX
8229331	7976012.956	503612.898	14.3	LINERX
8229332	7976013.153	503613.237	14.313	LINERC
8229333	7976013.228	503609.231	13.893	CRUSHT
8229334	7976013.418	503610.296	14.304	CRUSHC
8229335	7976013.427	503611.186	14.216	CRUSHX
8229336	7976013.639	503611.972	14.23	CRUSHX
8229337	7976013.651	503612.252	14.275	CRUSHT
8229338	7976013.65	503612.71	14.287	LINERX
8229339	7976013.785	503613.156	14.328	LINERC
8229340	7976016.751	503609.457	13.928	CRUSHT
8229341	7976016.735	503610.222	14.211	CRUSHC
8229342	7976016.799	503611.251	14.148	CRUSHX
8229343	7976016.839	503612.155	14.238	CRUSHC
8229344	7976016.821	503612.301	14.224	CRUSHT
8229345	7976016.835	503612.638	14.238	LINERX
8229346	7976016.812	503613.08	14.265	LINERC
8229347	7976021.936	503609.857	14.068	CRUSHT
8229348	7976021.875	503610.262	14.209	CRUSHC
8229349	7976021.965	503611.286	14.149	CRUSHX
8229350	7976022.022	503612.082	14.196	CRUSHC
8229351	7976021.978	503612.301	14.169	CRUSHT
8229352	7976021.991	503612.641	14.214	LINERX
8229353	7976021.958	503612.976	14.227	LINERC
8229354	7976026.519	503609.671	13.942	CRUSHT
8229355	7976026.524	503610.423	14.191	CRUSHC
8229356	7976026.508	503611.184	14.17	CRUSHX
8229357	7976026.472	503612.102	14.174	CRU5HC
8229358	7976026.559	503612.255	14.149	CRUSHT
8229359	7976026.523	503612.688	14.183	LINERX
8229360	7976026.561	503613.065	14.213	LINERC
8229361	7976031.496	503609.456	13.922	CRUSHT
8229362	7976031.536	503610.285	14.252	CRUSHC
8229363	7976031.524	503611.156	14.186	CRUSHX
8229364	7976031.438	503612.022	14.284	CRUSHC
8229365	7976031.499	503612.158	14.242	CRUSHT
8229366	7976031.458	503612.281	14.297	LINERX
8229367	7976031.414	503613.093	14.279	LINERC
8229368	7976035.65	503609.047	13.898	CRUSHT
8229369	7976035.745	503609.961	14.236	CRUSHC
8229370	7976035.768	503611.238	14.243	CRUSHX
8229371	7976035.782	503612.296	14.281	CRUSHC
8229372	7976035.791	503612.434	14.257	CRUSHT
8229373	7976035.73	503612.839	14.267	LINERX
8229374	7976035.779	503613.088	14.258	LINERC
8229375	7976041.323	503609.272	13.946	CRUSHT
8229376	7976041.266	503610.137	14.286	CRUSHC

8229377	7976041.323	503611.28	14.29	CRUSHX
8229378	7976041.417	503612.102	14.292	CRUSHC
8229379	7976041.438	503612.293	14.272	CRUSHT
8229380	7976041.422	503612.673	14.277	LINERX
8229381	7976041.349	503613.073	14.258	LINERC
8229382	7976046.266	503609.337	14.029	CRUSHT
8229383	7976046.26	503610.155	14.267	CRUSHC
8229384	7976046.292	503611.044	14.224	CRUSHX
8229385	7976046.371	503612.097	14.283	CRUSHC
8229386	7976046.381	503612.264	14.249	CRUSHT
8229387	7976046.362	503612.754	14.25	LINERX
8229388	7976046.314	503613.246	14.306	LINERC
8229389	7976050.736	503609.032	13.997	CRUSHT
8229390	7976050.844	503609.917	14.254	CRUSHC
8229391	7976050.917	503611.07	14.264	CRUSHX
8229392	7976050.995	503612.307	14.319	CRUSHC
8229393	7976051.011	503612.4	14.286	CRUSHT
8229394	7976050.991	503612.789	14.262	LINERX
8229395	7976050.919	503613.253	14.243	LINERC
8229396	7976054.517	503609.017	13.917	CRUSHT
8229397	7976054.507	503610.103	14.235	CRUSHC
8229398	7976054.597	503611.228	14.255	CRUSHX
8229399	7976054.609	503612.088	14.299	CRUSHC
8229400	7976054.628	503612.231	14.284	CRUSHT
8229401	7976054.601	503612.732	14.271	LINERX
8229402	7976054.549	503613.125	14.258	LINERC
8229403	7976057.181	503609.038	13.935	CRUSHT
8229404	7976057.177	503610.122	14.216	CRUSHC
8229405	7976057.026	503611.099	14.193	CRUSHX
8229406	7976059.705	503609.645	14.022	CRUSHT
8229407	7976059.047	503610.191	14.2	CRUSHC
8229408	7976058.342	503610.984	14.223	CRUSHX
8229409	7976057.203	503612.006	14.214	CRUSHX
8229410	7976056.625	503612.534	14.294	CRUSHC
8229411	7976056.56	503612.631	14.295	CRUSHT
8229412	7976056.22	503612.919	14.318	LINERX
8229413	7976056.017	503613.119	14.315	LINERC
8229414	7976059.818	503613.001	13.989	CRUSHT
8229415	7976059.227	503613.112	14.232	CRUSHC
8229416	7976057.934	503613.235	14.226	CRUSHX
8229417	7976057.233	503613.275	14.22	CRUSHC
8229418	7976057.135	503613.287	14.201	CRUSHT
8229419	7976056.647	503613.269	14.301	LINERX
8229420	7976059.888	503617.15	14.038	CRUSHT
8229421	7976059.354	503617.211	14.2	CRUSHC
8229422	7976058.093	503617.263	14.183	CRUSHX
8229423	7976057.043	503617.299	14.206	CRUSHC

8229424	7976056.964	503617.3	14.181	CRUSHT
8229425	7976056.653	503617.314	14.191	LINERX
8229426	7976056.292	503617.283	14.194	LINERC
8229427	7976059.854	503622.228	14.05	CRUSHT
8229428	7976059.403	503622.258	14.202	CRUSHC
8229429	7976058.171	503622.381	14.221	CRUSHX
8229430	7976057.183	503622.415	14.251	CRUSHC
8229431	7976057.085	503622.398	14.215	CRUSHT
8229432	7976056.715	503622.365	14.203	LINERX
8229433	7976056.255	503622.351	14.172	LINERC
8229434	7976059.817	503627.578	14.163	CRUSHT
8229435	7976059.358	503627.601	14.278	CRUSHC
8229436	7976058.127	503627.621	14.25	CRUSHX
8229437	7976057.286	503627.647	14.278	CRUSHC
8229438	7976057.145	503627.644	14.198	CRUSHT
8229439	7976056.758	503627.629	14.271	LINERX
8229440	7976056.039	503627.621	14.22	LINERC
8229441	7976059.867	503633.275	14.192	CRUSHT
8229442	7976059.351	503633.362	14.334	CRUSHC
8229443	7976058.191	503633.348	14.253	CRUSHX
8229444	7976057.267	503633.349	14.246	CRUSHC
8229445	7976057.182	503633.331	14.222	CRUSHT
8229446	7976056.613	503633.345	14.219	LINERX
8229447	7976055.984	503633.371	14.22	LINERC
8229448	7976059.918	503638.771	14.121	CRUSHT
8229449	7976059.295	503638.89	14.232	CRUSHC
8229450	7976058.231	503638.936	14.225	CRUSHX
8229451	7976057.304	503638.919	14.268	CRUSHC
8229452	7976057.016	503638.923	14.221	CRUSHT
8229453	7976056.548	503638.899	14.223	LINERX
8229454	7976055.928	503638.909	14.192	LINERC
8229455	7976059.614	503643.688	14.11	CRUSHT
8229456	7976059.15	503643.641	14.253	CRUSHC
8229457	7976058.264	503643.657	14.195	CRUSHX
8229458	7976057.088	503643.709	14.236	CRUSHC
8229459	7976056.843	503643.729	14.176	CRUSHT
8229460	7976056.325	503643.705	14.202	LINERX
8229461	7976055.942	503643.682	14.154	LINERC
8229462	7976059.837	503648.319	14.11	CRUSHT
8229463	7976059.12	503648.345	14.245	CRUSHC
8229464	7976058.111	503648.43	14.228	CRUSHX
8229465	7976057.049	503648.441	14.295	CRUSHC
8229466	7976056.831	503648.491	14.241	CRUSHT
8229467	7976056.446	503648.461	14.245	LINERX
8229468	7976056.086	503648.476	14.236	LINERC
8229469	7976059.988	503652.235	14.1	CRUSHT
8229470	7976059.172	503652.185	14.232	CRUSHC

8229471	7976058.112	503652.154	14.162	CRUSHX
8229472	7976057.06	503652.186	14.164	CRUSHC
8229473	7976056.982	503652.192	14.211	CRUSHT
8229474	7976056.515	503652.108	14.203	LINERX
8229475	7976055.918	503652.067	14.14	LINERC
8229476	7976059.14	503655.101	14.209	CRUSHC
8229477	7976057.964	503655.142	14.148	CRUSHX
8229478	7976057.224	503655.16	14.172	CRUSHC
8229479	7976057.057	503655.247	14.13	CRUSHT
8229480	7976056.53	503655.158	14.157	LINERX
8229481	7976056.011	503655.146	14.143	LINERC
8229482	7976059.817	503656.822	13.996	CRUSHT
8229483	7976059.148	503656.833	14.178	CRUSHC
8229484	7976057.792	503656.882	14.17	CRUSHX
8229485	7976059.463	503659.527	14.107	CRUSHT
8229486	7976059.092	503659.194	14.119	CRUSHC
8229487	7976057.769	503657.775	14.198	CRUSHX
8229488	7976057.046	503656.889	14.265	CRUSHC
8229489	7976056.929	503656.768	14.184	CRUSHT
8229490	7976056.404	503656.178	14.226	LINERX
8229491	7976055.833	503655.871	14.18	LINERC
8229492	7976056.803	503659.538	14.118	CRUSHT
8229493	7976056.793	503659.224	14.17	CRUSHC
8229494	7976056.752	503658.262	14.167	CRUSHX
8229495	7976056.664	503657.005	14.214	CRUSHC
8229496	7976056.662	503656.859	14.168	CRUSHT
8229497	7976052.056	503659.638	14.148	CRUSHT
8229498	7976052.041	503659.195	14.255	CRUSHC
8229499	7976052.01	503658.228	14.235	CRUSHX
8229500	7976051.915	503657.119	14.256	CRUSHC
8229501	7976051.927	503657.044	14.213	CRUSHT
8229502	7976051.979	503656.5	14.162	LINERX
8229503	7976052.026	503656.128	14.173	LINERC
8229504	7976047.809	503659.864	14.234	CRUSHT
8229505	7976047.759	503659.148	14.369	CRUSHC
8229506	7976047.724	503658.256	14.297	CRUSHX
8229507	7976047.69	503657.174	14.278	CRUSHC
8229508	7976047.709	503657.035	14.232	CRUSHT
8229509	7976047.753	503656.568	14.264	LINERX
8229510	7976047.738	503656.071	14.239	LINERC
8229511	7976041.777	503659.535	14.325	CRUSHT
8229512	7976041.779	503659.125	14.346	CRUSHC
8229513	7976041.742	503658.188	14.326	CRUSHX
8229514	7976041.773	503657.136	14.318	CRUSHC
8229515	7976041.772	503657.049	14.332	CRUSHT
8229516	7976041.809	503656.603	14.24	LINERX
8229517	7976041.759	503656.143	14.258	LINERC

8229518	7976035.774	503659.522	14.295	CRUSHT
8229519	7976035.79	503659.214	14.339	CRUSHC
8229520	7976035.821	503658.404	14.356	CRUSHX
8229521	7976035.728	503657.221	14.32	CRUSHC
8229522	7976035.702	503657.095	14.274	CRUSHT
8229523	7976035.738	503656.604	14.253	LINERX
8229524	7976035.774	503656.142	14.222	LINERC
8229525	7976030.353	503659.442	14.348	CRUSHT
8229526	7976030.358	503659.228	14.364	CRUSHC
8229527	7976030.369	503658.411	14.326	CRUSHX
8229528	7976030.308	503657.002	14.271	CRUSHC
8229529	7976030.35	503656.931	14.253	CRUSHT
8229530	7976030.363	503656.446	14.244	LINERX
8229531	7976030.382	503655.993	14.219	LINERC
8229532	7976024.234	503659.365	14.33	CRUSHT
8229533	7976024.2	503659.174	14.408	CRUSHC
8229534	7976024.209	503658.204	14.322	CRUSHX
8229535	7976024.09	503657.065	14.306	CRUSHC
8229536	7976024.081	503656.922	14.306	CRUSHT
8229537	7976024.152	503656.374	14.234	LINERX
8229538	7976024.164	503655.898	14.245	LINERC
8229539	7976019.191	503659.485	14.257	CRUSHT
8229540	7976019.166	503659.088	14.364	CRUSHC
8229541	7976019.097	503658.156	14.318	CRUSHX
8229542	7976019.1	503657.101	14.301	CRUSHC
8229543	7976019.035	503656.988	14.253	CRUSHT
8229544	7976019.122	503656.409	14.277	LINERX
8229545	7976019.118	503655.94	14.203	LINERC
8229546	7976015.111	503659.421	14.21	CRUSHT
8229547	7976015.085	503659.126	14.301	CRUSHC
8229548	7976015.093	503658.174	14.242	CRUSHX
8229549	7976015.049	503657.224	14.309	CRUSHC
8229550	7976014.944	503657.115	14.231	CRUSHT
8229551	7976015.027	503656.771	14.252	LINERX
8229552	7976015.008	503656.156	14.203	LINERC
8229553	7976012.697	503659.317	14.173	CRUSHT
8229554	7976012.697	503659.114	14.23	CRUSHC
8229555	7976012.763	503657.764	14.203	CRUSHX
8229556	7976012.856	503657.156	14.267	CRUSHC
8229557	7976012.897	503657.068	14.243	CRUSHT
8229558	7976010.133	503659.369	14.171	ROQC
8229559	7976010.133	503656.33	14.215	ROQC
8229560	7976012.701	503659.23	14.169	ROQC
8229561	7976013.076	503658.911	14.229	CRUSHX
8229562	7976012.266	503658.529	14.204	CRUSHX
8229563	7976011.332	503658.265	14.211	CRUSHX
8229564	7976010.506	503657.03	14.213	CRUSHX

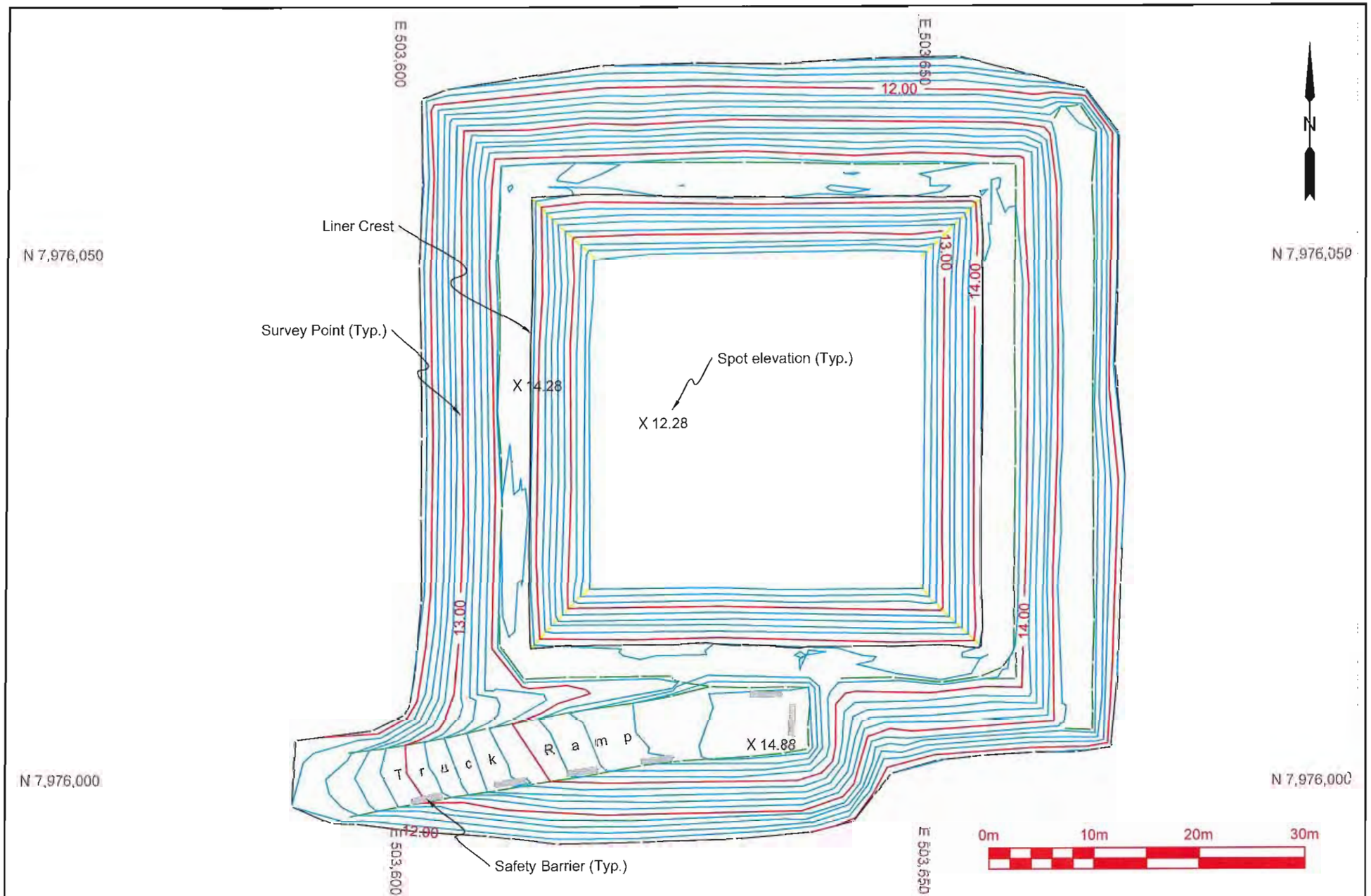
8229565	7976010.288	503655.866	14.212	CRUSHX
8229566	7976010.976	503658.106	14.197	CRUSHT
8229567	7976011.185	503658.005	14.214	CRUSHC
8229568	7976011.74	503657.326	14.213	CRUSHX
8229569	7976012.333	503656.794	14.242	CRUSHC
8229570	7976012.423	503656.7	14.2	CRUSHT
8229571	7976012.818	503656.357	14.268	LINERX
8229572	7976013.214	503656.023	14.221	LINERC
8229573	7976010.232	503655.979	14.219	CRUSHT
8229574	7976010.35	503655.972	14.214	CRUSHC
8229575	7976011.128	503655.967	14.21	CRUSHX
8229576	7976012.052	503655.875	14.197	CRUSHC
8229577	7976012.176	503655.899	14.233	CRUSHT
8229578	7976012.576	503655.879	14.228	LINERX
8229579	7976013.079	503655.826	14.209	LINERC
8229580	7976009.639	503652.237	14.212	CRUSHT
8229581	7976009.824	503652.284	14.211	CRUSHC
8229582	7976010.876	503652.156	14.157	CRUSHX
8229583	7976012.087	503652.096	14.162	CRUSHC
8229584	7976012.155	503652.131	14.159	CRUSHT
8229585	7976012.689	503652.086	14.164	LINERX
8229586	7976013.354	503652.144	14.142	LINERC
8229587	7976009.654	503647.773	14.155	CRUSHT
8229588	7976010.298	503647.689	14.23	CRUSHC
8229589	7976010.947	503647.665	14.181	CRUSHX
8229590	7976011.892	503647.595	14.092	CRUSHX
8229591	7976012.195	503647.569	14.169	CRUSHX
8229594	7976012.872	503647.432	14.148	LINERX
8229595	7976013.252	503647.429	14.123	LINERC
8229596	7976009.816	503642.49	14.196	CRUSHT
8229597	7976010.231	503642.532	14.289	CRUSHC
8229598	7976011.285	503642.38	14.257	CRUSHX
8229599	7976012.352	503642.365	14.278	CRUSHC
8229600	7976012.471	503642.345	14.219	CRUSHT
8229601	7976012.903	503642.367	14.21	LINERX
8229602	7976013.249	503642.394	14.192	LINERC
8229603	7976012.544	503639.664	14.185	LINERX
8229604	7976013.273	503639.619	14.213	LINERC
8229605	7976010.967	503631.839	14.337	LINERX
8229606	7976012.231	503631.866	14.26	LINERX
8229607	7976011.284	503633.744	14.284	LINERX
8229608	7976012.523	503633.713	14.235	LINERX
8229609	7976011.046	503635.811	14.32	LINERX
8229610	7976012.391	503635.929	14.233	LINERX
8229611	7976011.351	503637.529	14.266	LINERX
8229612	7976012.561	503637.49	14.24	LINERX
8229613	7976013.108	503638.849	14.223	LINERC

8229614	7976013.228	503637.053	14.227	LINERC
8229615	7976013.348	503635.333	14.21	LINERC
8229616	7976013.39	503632.848	14.276	LINERC
8229617	7976013.461	503631.518	14.237	LINERC
8229618	7976007.121	503611.14	13.682	ROQX
8229619	7976007.205	503612.472	13.747	6INCHX
8229620	7976008.156	503612.451	13.673	6INCHX
8229621	7976006.87	503609.968	13.575	6INCHX
8229622	7976008.285	503609.933	13.556	6INCHX
8229623	7976006.483	503607.629	13.365	6INCHX
8229624	7976008.061	503607.5	13.312	6INCHX
8229625	7976008.015	503606.053	13.055	6INCHX
8229626	7976006.134	503605.289	13.064	6INCHX
8229627	7976006.073	503603.1	12.518	6INCHX
8229628	7976008.487	503604.126	12.471	6INCHX
8229629	7976008.401	503607.171	13.306	6INCHX
8229630	7976009.023	503608.587	13.723	6INCHX
8229631	7976008.52	503609.082	13.541	6INCHX
8229632	7976010.021	503608.381	13.622	6INCHX
8229633	7976010.125	503609.279	13.942	6INCHX
8229634	7976009.478	503609.351	13.911	6INCHX
8229635	7976009.015	503610.356	13.727	6INCHX
8229636	7976013.359	503606.87	13.156	6INCHX
8229637	7976017.322	503606.67	13.037	6INCHX
8229638	7976022.213	503606.848	13.029	6INCHX
8229639	7976026.262	503606.581	12.933	6INCHX
8229640	7976031.039	503606.399	12.879	6INCHX
8229641	7976035.35	503606.473	12.909	6INCHX
8229642	7976041.852	503606.407	12.938	6INCHX
8229643	7976046.245	503606.7	13.08	6INCHX
8229644	7976050.53	503606.812	13.168	6INCHX
8229645	7976054.608	503606.864	13.177	6INCHX
8229646	7976058.479	503607.198	13.308	6INCHX
8229647	7976061.31	503607.998	13.447	6INCHX
8229648	7976062.367	503612.642	13.04	6INCHX
8229649	7976064.687	503612.274	12.279	6INCHX
8229650	7976064.633	503608.276	12.247	6INCHX
8229651	7976063.923	503604.91	12.424	6INCHX
8229652	7976060.004	503604.79	12.37	6INCHX
8229653	7976057.668	503604.87	12.44	6INCHX
8229654	7976064.043	503619.149	12.693	6INCHX
8229655	7976063.68	503622.742	12.745	6INCHX
8229656	7976063.883	503626.966	12.788	6INCHX
8229657	7976064.154	503631.898	12.748	6INCHX
8229658	7976064.269	503637.924	12.649	6INCHX
8229659	7976064.457	503642.357	12.572	6INCHX
8229660	7976064.43	503647.491	12.538	6INCHX

8229661	7976064.503	503652.672	12.517	6INCHX
8229662	7976064.531	503656.647	12.531	6INCHX
8229663	7976064.061	503660.421	12.574	6INCHX
8229664	7976061.49	503659.801	13.496	6INCHX
8229665	7976060.322	503660.972	13.739	6INCHX
8229666	7976058.428	503661.251	13.667	6INCHX
8229667	7976058.618	503662.592	13.142	6INCHX
8229668	7976061.355	503662.361	13.151	6INCHX
8229669	7976062.695	503661.904	12.976	6INCHX
8229670	7976065.17	503661.21	12.161	6INCHX
8229671	7976065.873	503662.92	12.007	6INCHX
8229672	7976063.323	503662.849	12.724	6INCHC
8229673	7976064.452	503663.535	12.627	6INCHC
8229674	7976064.656	503665.333	12.518	6INCHC
8229675	7976062.277	503666.957	12.592	6INCHC
8229676	7976062.202	503665.136	12.636	6INCHX
8229677	7976062.352	503663.099	12.71	6INCHT
8229678	7976057.234	503666.495	12.786	6INCHC
8229679	7976057.037	503664.533	12.728	6INCHX
8229680	7976056.962	503663.719	12.749	6INCHT
8229681	7976057.062	503662.07	13.411	6INCHX
8229682	7976052.285	503662.414	13.284	6INCHX
8229683	7976052.283	503663.767	12.748	6INCHT
8229684	7976052.265	503665.266	12.7	6INCHX
8229685	7976052.148	503666.696	12.696	6INCHC
8229686	7976047.547	503666.785	12.703	6INCHC
8229687	7976047.419	503665.357	12.706	6INCHX
8229688	7976047.465	503663.912	12.64	6INCHT
8229689	7976047.586	503662.162	13.404	6INCHX
8229690	7976043.005	503666.729	12.734	6INCHC
8229691	7976042.882	503665.242	12.699	6INCHX
8229692	7976042.835	503663.977	12.739	6INCHT
8229693	7976042.893	503662.483	13.322	6INCHX
8229694	7976038.398	503666.628	12.704	6INCHC
8229695	7976038.352	503665.242	12.673	6INCHX
8229696	7976038.381	503663.927	12.721	6INCHT
8229697	7976038.496	503662.416	13.355	6INCHX
8229698	7976033.392	503666.629	12.687	6INCHC
8229699	7976033.316	503665.3	12.663	6INCHX
8229700	7976033.385	503663.92	12.766	6INCHT
8229701	7976033.498	503662.162	13.429	6INCHX
8229702	7976029.197	503666.671	12.772	6INCHC
8229703	7976029.124	503665.227	12.747	6INCHX
8229704	7976029.21	503663.775	12.682	6INCHT
8229705	7976029.456	503662.062	13.436	6INCHX
8229706	7976024.402	503666.719	12.733	6INCHC
8229707	7976024.301	503665.155	12.73	6INCHX

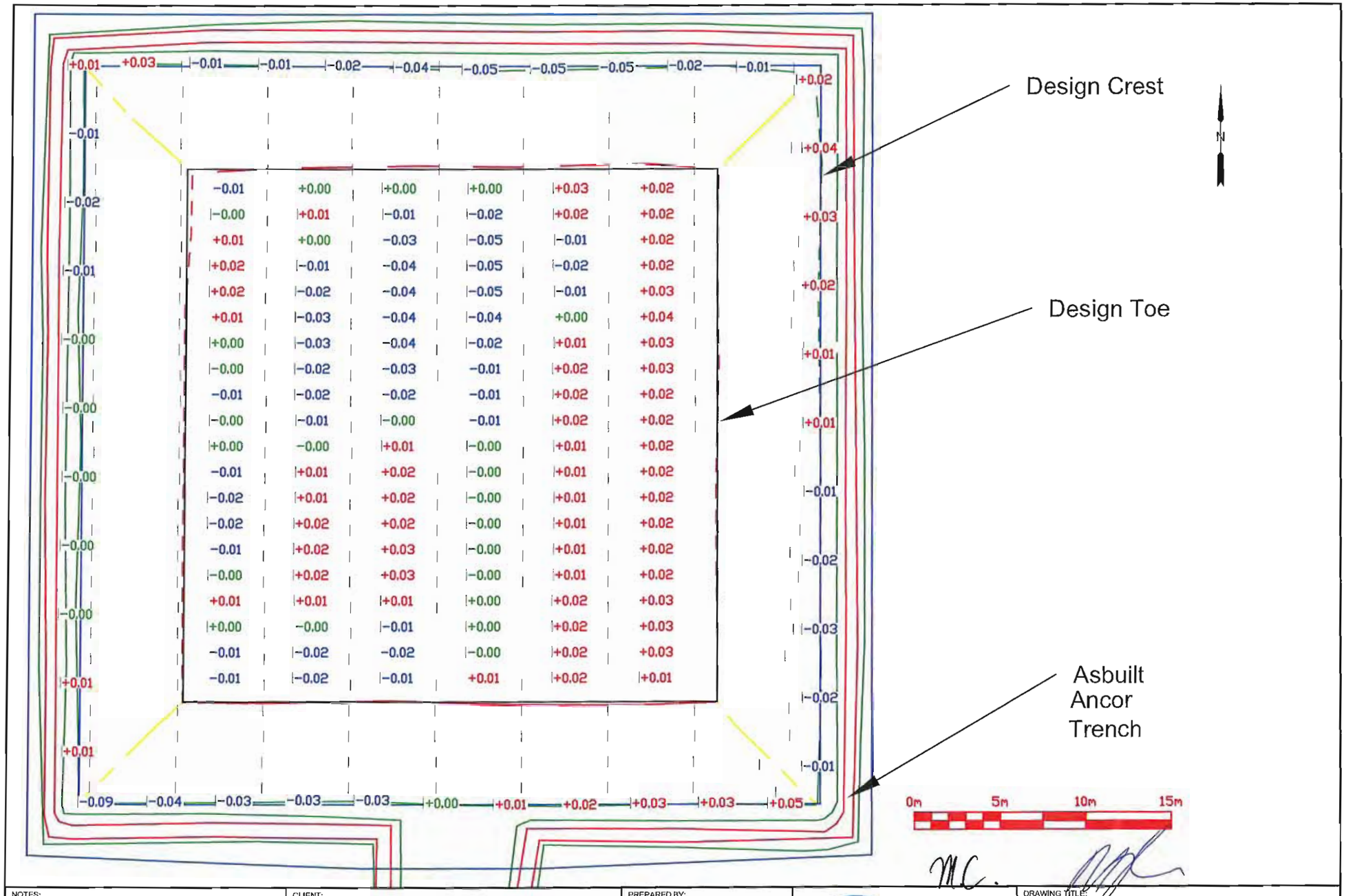
8229708	7976024.195	503663.7	12.778	6INCHT
8229709	7976024.237	503661.71	13.527	6INCHX
8229710	7976019.803	503666.696	12.748	6INCHC
8229711	7976019.667	503665.028	12.722	6INCHX
8229712	7976019.663	503663.461	12.728	6INCHT
8229713	7976019.613	503662.087	13.269	6INCHX
8229714	7976015.657	503666.827	12.724	6INCHC
8229715	7976015.516	503665.096	12.701	6INCHX
8229716	7976015.53	503663.671	12.692	6INCHT
8229717	7976015.554	503662.005	13.371	6INCHX
8229718	7976011.61	503666.677	12.711	6INCHC
8229719	7976011.381	503665.061	12.74	6INCHX
8229720	7976011.379	503663.792	12.7	6INCHT
8229721	7976011.353	503662.101	13.356	6INCHX
8229722	7976009.04	503666.611	12.775	6INCHC
8229723	7976008.858	503665.128	12.713	6INCHX
8229724	7976008.923	503663.742	12.761	6INCHT
8229725	7976009.025	503662.32	13.293	6INCHX
8229726	7976007.028	503666.661	12.765	6INCHC
8229727	7976005.236	503666.627	12.753	6INCHC
8229728	7976005.356	503663.93	12.685	6INCHC
8229729	7976005.86	503663.573	12.805	6INCHT
8229730	7976007.655	503663.655	12.807	6INCHT
8229731	7976006.049	503662.921	12.996	6INCHX
8229732	7976005.835	503660.942	12.903	6INCHX
8229733	7976007.499	503660.092	13.529	6INCHX
8229734	7976008.125	503661.064	13.714	6INCHX
8229735	7976009.38	503661.684	13.494	6INCHX
8229736	7976010.476	503660.475	13.859	6INCHX
8229737	7976009.466	503659.866	14.041	6INCHX
8229738	7976008.878	503658.366	13.904	6INCHX
8229739	7976005.837	503657.563	13.013	6INCHX
8229740	7976005.553	503653.058	13.05	6INCHX
8229741	7976007.929	503652.605	13.739	6INCHX
8229742	7976007.766	503649.223	13.728	6INCHX
8229743	7976005.173	503649.501	13.001	6INCHX
8229744	7976004.101	503647.361	12.634	6INCHX
8229745	7976003.361	503646.385	12.44	6INCHX
8229746	7976002.067	503645.558	12.662	6INCHX
8229747	7976003.572	503644.264	13.337	6INCHX
8229748	7976004.79	503645.31	13.011	6INCHX
8229749	7976005.415	503647.397	12.999	6INCHX
8229750	7976007.286	503647.252	13.6	6INCHX
8229751	7976007.144	503645.256	13.586	6INCHX
8229752	7976006.053	503644.566	13.413	6INCHX
8229753	7976004.382	503643.533	13.581	6INCHX
8229754	7976007.225	503642.747	13.873	6INCHX

8229755	7976004.053	503642.329	13.982	6INCHX
8229756	7976002.371	503641.881	14.03	6INCHX
8229757	7976001.317	503643.269	13.445	6INCHX
8229758	7976000.144	503644.314	12.907	6INCHX
8229759	7975998.598	503642.988	12.908	6INCHX
8229760	7975999.828	503641.973	13.451	6INCHX
8229761	7976001.225	503640.909	13.998	6INCHX
8229762	7976000.763	503639.164	14.066	6INCHX
8229763	7975999.044	503639.338	13.496	6INCHX
8229764	7975997.568	503639.123	12.979	6INCHX
8229765	7975997.781	503635.913	13.017	6INCHX
8229766	7976000.055	503635.706	13.889	6INCHX
8229767	7975999.234	503632.875	13.597	6INCHX
8229768	7975998.773	503627.351	13.48	6INCHX
8229769	7975998.348	503622.278	13.382	6INCHX
8229770	7975998.019	503616.421	13.242	6INCHX
8229771	7975997.842	503610.872	13.023	6INCHX
8229772	7975997.642	503606.036	12.777	6INCHX



NOTES:	CLIENT: Baffinland Iron Mines Corporation	PREPARED BY: Nuna East Ltd. 9839 - 31 Avenue Edmonton, AB T6N 1C5	NUNA	DRAWING TITLE: **Final As-built of Effluent Pond**
	PROJECT: Mary River Project, Baffin Island, Nunavut	DRAWN BY: gc	SCALE: 1 : 500 / DATE: Aug 17, 2013	DRAWING NAME (YYMMDD): CAB 130817 EP Final as-built.dwg

C:\130510\1. Projects\035 EP Effluent Pond\CAD\7. Compiled As-built\CAB 130817 EP Final as-built.dwg, 8/17/2013 5:11:59 PM, DWG To PDF.pc3



NOTES:

Asbuilt underliner Sand vs
De Effluent Pond FG surface
Fills=Red +
Cuts=Blue -
Green=Grade
*Cuts are above design grades & fills are below

Red lines=Asbuilt Toes
Green Lines=Asbuilt Crests

CLIENT: Baffinland Iron Mines Corporation

PROJECT: Mary River Project, Baffin Island, Nunavut

PREPARED BY:
Nuna East Ltd.
9839 - 31 Avenue
Edmonton, AB
T6N 1C5

DRAWN BY: mc

SCALE: 1 : 300

DATE: July 19, 2013

DRAWING TITLE:
Cut/Fill Effluent Pond Underliner Sand July 19, 2013

DRAWING NAME (YYMMDD): CAB 130719 EP Sand Final.dwg

C:\130510\1. Projects\055 EP Effluent Pond\CAD\7. Compiled As-built\CAB 130719 EP Sand Final.dwg, 7/20/2013 11:08:46 AM, Adobe PDF

Appendix G
Inspection and Test Plan

NUNA EAST LTD

Section 2

Inspection & Test Plan

QUALITY CONTROL
INSPECTION and TEST PLAN
(Aggregate Construction)

Client: Baffinland Iron Mines ERP-Hatch Engineering			**Revision:** 0
Job No.: 2999 BIM 2.3.1.12	**Contract No.:** H34900-CC001	**P.O. No.:**	**Date:** June 25, 2013
Item/Description: Off-Spec Effluent Storage Pond-Milne Port	**Drawing No.(s):** See page 5	**PID No.(s):** N/A	

Legend:
H: A mandatory hold on manufacturer until release by inspector or official waiver from client.
M: Inspection stage by inspector on a spot basis, but not a mandatory hold point.
HR: A mandatory review and acceptance/approval of specified document.
W: To be informed and invited to inspect. Fabrication to continue if inspector does not attend.
R: Review of test report/certifications.
A: Audit (Review at Random).

Activity. No.	QUALITY RELATED ACTIVITY	REFERENCE DOCUMENTS	ACCEPTANCE CRITERIA	DOCUMENT CERTIFICATION REQUIRED	NUNA			HATCH			BIM		
					Hold	Sign	Date	Hold	Sign	Date	Hold	Sign	Date
01.	Verify Engineering Aggregate Specifications.	Quarried Fill Materials Section: S31 12 13, IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	IFC Work Package.	H	ML	21/1/13		M.C	21/1/13			
02.	Sampling of Crusher produced material meets specification. • Type 12. • Type 9. • Type 8. • Type 6. • Type 5. • Type 4.	Quarried Fill Materials Section: S31 12 13, IFC Engineered Design Drawings.	As per "IFC" Specifications.	Initialed ITP, Statement of Compliance to Engineering Specification Form.	H	ML	21/1/13		ML	21/1/13			
03.	Area of works Survey complete.	IFC Engineered Design Drawings.	As per "IFC" Drawings.	Initialed ITP, Survey Report. SEE LIDAR SURVEY.	H	ML	21/1/13		ML	21/1/13			
	Run of Quarry Fill Area												
04.	Placement of ROQ in ROQ fill area completed. • Location: N 7 976 014, E 503 664. • Fill to 11.3m. • Finished Grade EL. 12.08m.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specifications.	Initialed ITP, Survey Report.	H	ML	21/1/13		ML	21/1/13			

QUALITY CONTROL
INSPECTION and TEST PLAN
(Aggregate Construction)

Client: Baffinland Iron Mines ERP-Hatch Engineering			**Revision:** 0
Job No.: 2999 BIM 2.3.1.12	**Contract No.:** H34900-CC001	**P.O. No.:**	**Date:** June 25, 2013
Item/Description: Off-Spec Effluent Storage Pond-Milne Port	**Drawing No.(s):** See page 5	**PID No.(s):** N/A	

Legend:
H: A mandatory hold on manufacturer until release by inspector or official waiver from client.
M: Inspection stage by inspector on a spot basis, but not a mandatory hold point.
HR: A mandatory review and acceptance/approval of specified document.
W: To be informed and invited to inspect. Fabrication to continue if inspector does not attend.
R: Review of test report/certifications.
A: Audit (Review at Random).

Activity. No.	QUALITY RELATED ACTIVITY	REFERENCE DOCUMENTS	ACCEPTANCE CRITERIA	DOCUMENT CERTIFICATION REQUIRED	NUNA			HATCH			BIM		
05.	Compaction of ROQ fill area completed.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP.	H	MC	21/7/13		M.C	21/7/13			
	Pond Floor, Berms & Access Ramp												
06.	Berms & Access Ramp initial installation completed. • Type 8 aggregate (Main). • Type 5 aggregate (Utility Berm, Access Ramp).	IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP, Survey Report.	H	KK	08/17/13		MC	08/17/13			
07.	Compaction of Berms & Access Ramp completed.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP.	H	KK	08/17/13		MC	08/17/13			
08.	Installation of Type 5 lift. • 100mm. • Pond Floor, Berms & Access Ramp.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP, Survey Report.	H	MC	21/7/13		MC	21/7/13			

QUALITY CONTROL
INSPECTION and TEST PLAN
(Aggregate Construction)

Client: Baffinland Iron Mines ERP-Hatch Engineering			**Revision:** 0
Job No.: 2999 BIM 2.3.1.12	**Contract No.:** H34900-CC001	**P.O. No.:**	**Date:** June 25, 2013
Item/Description: Off-Spec Effluent Storage Pond-Milne Port	**Drawing No.(s):** See page 5	**PID No.(s):** N/A	

Legend:
H: A mandatory hold on manufacturer until release by inspector or official waiver from client.
M: Inspection stage by inspector on a spot basis, but not a mandatory hold point.
HR: A mandatory review and acceptance/approval of specified document.
W: To be informed and invited to inspect. Fabrication to continue if inspector does not attend.
R: Review of test report/certifications.
A: Audit (Review at Random).

Activity. No.	QUALITY RELATED ACTIVITY	REFERENCE DOCUMENTS	ACCEPTANCE CRITERIA	DOCUMENT CERTIFICATION REQUIRED	NUNA			HATCH			BIM		
09.	Compaction of Type 5 lift completed.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP.	H	MC	21/7/13		MC	21/7/13			
10.	Installation of Type 9 or Type 6 lift completed. • 100mm. • Pond Floor & Berms.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification. liner bedding	Initialed ITP, Survey Report.	H	MC	21/7/13		MC	21/7/13			
11.	Compaction of Type 9 or Type 6 lift completed.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification. liner bedding	Initialed ITP.	H	MC	21/7/13		MC	21/7/13			
12.	Placement of Geotextile liner completed. • Non-woven. • Pond Floor & Berm.	Geotextiles Section: S31 05 19.13 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP, sub-contractor documentation.	H	MC	21/7/13		MC	21/7/13			
13.	Placement of Geomembrane liner. • Type 4 • Pond Floor & Berms.	Geomembranes Section: S31 05 19.16, IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP, sub-contractor documentation.	H	MC	21/7/13		MC	21/7/13			
14.	Placement of Geotextile liner completed. • Non-woven. • **Only installed @ Landing Pad zone.**	Geotextiles Section: S31 05 19.13 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP, sub-contractor documentation.	H	MC	23/7/13		MC	27/7/13			

QUALITY CONTROL
INSPECTION and TEST PLAN
(Aggregate Construction)

Client: Baffinland Iron Mines ERP-Hatch Engineering			**Revision:** 0
Job No.: 2999 BIM 2.3.1.12	**Contract No.:** H34900-CC001	**P.O. No.:**	**Date:** June 25, 2013
Item/Description: Off-Spec Effluent Storage Pond-Milne Port	**Drawing No.(s):** See page 5	**PID No.(s):** N/A	

Legend:
H: A mandatory hold on manufacturer until release by inspector or official waiver from client.
M: Inspection stage by inspector on a spot basis, but not a mandatory hold point.
HR: A mandatory review and acceptance/approval of specified document.
W: To be informed and invited to inspect. Fabrication to continue if inspector does not attend.
R: Review of test report/certifications.
A: Audit (Review at Random).

NUNA

Activity. No.	QUALITY RELATED ACTIVITY	REFERENCE DOCUMENTS	ACCEPTANCE CRITERIA	DOCUMENT CERTIFICATION REQUIRED	NUNA			HATCH			BIM		
15.	Installation of Type 9 or Type 6 Key lift completed. • 100mm.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP, Survey Report.	H	KK	08/17/13	MC	08/17/13				
16.	Compaction of Type 9 or Type 6 lift completed.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP.	H	KK	08/17/13	MC	08/17/13				
17.	Installation of Type 5 key lift. • 400mm @Landing Pad zone. • As required @ Normal Berm zone.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP, Survey Report.	H	KK	08/17/13	MC	08/17/13				
18.	Compaction of Type 5 lift completed.	Quarried Fill Materials Section: S31 12 13 Placement of Fill Section: S31 12 12 IFC Engineered Design Drawings.	As per "IFC" Drawings and Specification.	Initialed ITP.	H	KK	08/17/13	MC	08/17/13				
19.	Final inspection completed.	QMS	As per code and client specifications	ITP	H	KK	08/17/13	MC	09/17/13				
20.	Punchlist generated and closed.	QMS	As per code and client specifications	Punchlist Signoff	H	JG	9/20/13	(R)	09/26/13				
21.	NCR's closed.	QMS	As per code and client specifications	NCR Log signed off as closed	H			N/A.					
22.	As-built Completed.	Contract documents	As per Client	As-built drawings	H		10/25/13						

QUALITY CONTROL
INSPECTION and TEST PLAN
(Aggregate Construction)

Client: Baffinland Iron Mines ERP-Hatch Engineering			**Revision:** 0
Job No.: 2999 BIM 2.3.1.12	**Contract No.:** H34900-CC001	**P.O. No.:**	**Date:** June 25, 2013
Item/Description: Off-Spec Effluent Storage Pond-Milne Port	**Drawing No.(s):** See page 5	**PID No.(s):** N/A	

Legend:
H: A mandatory hold on manufacturer until release by inspector or official waiver from client.
M: Inspection stage by inspector on a spot basis, but not a mandatory hold point.
HR: A mandatory review and acceptance/approval of specified document.
W: To be informed and invited to inspect. Fabrication to continue if inspector does not attend.
R: Review of test report/certifications.
A: Audit (Review at Random).

Activity. No.	QUALITY RELATED ACTIVITY	REFERENCE DOCUMENTS	ACCEPTANCE CRITERIA	DOCUMENT CERTIFICATION REQUIRED	NUNA			HATCH			BIM		
23.	Inspection Acceptance and Sign-Off Form signed by Engineer of record.	Nuna QMS.	Engineer Signature.	Initialed ITP.	H		N/A						
24.	Turnover package completed and sent to client.	Nuna QMS	Code, applicable specification.	Quality Control Turnover package.	H		10/3/13						

*Note: 1. ITP Sign-Off is based on supporting documentation.

Drawing(s):

- Drawing Number: H349000-2735-10-035-0001 Rev 0 (IFC)
- Drawing Number: H349000-2735-10-035-0002 Rev 0 (IFC)
- Drawing Number: H349000-2130-10-015-0001 Rev 0 (IFC)

Customer Acceptance:

(Print)	(Sign)	(Date)

APPENDIX D.2
GEOTECHNICAL INSPECTION

October 31, 2013

Phyllis Beaulieu, Manager of Licensing
Nunavut Water Board
P.O. Box 119, Gjoa Haven NU X0B 1J0

Dear Ms. Beaulieu:

Re: Baffinland Iron Mines Corporation (BIMC) - Submission of 2013 Annual Geotechnical Inspection, Water Licences Type 'A' No. 2AM-MRY1325 and Type 'B' 2BB-MRY1114

1. INTRODUCTION

Under Part D, Item 19, of Baffinland Iron Mines Corporation (BIMC) Water Licences Type 'A' 2AM-MRY1325 and Type 'B' 2BB-MRY1114, there are requirements to conduct geotechnical inspections of specified Mary River Project (the 'Project") infrastructure. Part D, Item 19, of the Type 'A' Licence states that:

> "The Licensee shall conduct inspections of the earthwork, geological regime, and the hydrological regime of the Project Biannually during the summer or as otherwise approved by the Board in writing. The inspection shall be conducted by a Geotechnical Engineer and the inspection report shall be submitted to the Board within sixty (60) days of the inspection, with a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations."

During 2013, the geotechnical field inspection was conducted by Barry H. Martin Consulting Engineer and Architect (Barry Martin) of Timmins, Ontario. The focus of the inspection was on Water Licence related infrastructure at its two main camp sites, known as the Mary River Mine Site and Milne Port Site Camps. Mr. Barry Martin was the design engineer of record for much of the Project infrastructure at the camps. Since 2008, as part of the Type 'B' Licence requirements, BIMC had retained Mr. Martin, then with GENIVAR Consultants to complete each of its annual Water License geotechnical inspections of infrastructure. Barry Martin was on the Project site August 29, 30, and 31, 3013. The 2013 report was completed and submitted to Baffinland on October 29. During the 2012 inspection, the containment structures reviewed at the respective camps included the following:

Mary River Mine Site Camp

- Bulk Fuel Storage Facility Containment
- Generator Fuel Storage Facility Containment
- Polishing/Waste Stabilization Pond No.1
- Polishing/Waste Stabilization Ponds No.2 and No.3 (Constructed as a 2 cell structure)
- Helicopter Fuel Cell Containment
- Barrel Fuel Containment (Constructed as a 2 cell structures)
- Stove Oil Storage
- Enviro-Tank Storage (Constructed contiguous with hazardous waste storage and stove oil storage).
- Hazardous Waste Storage
- Jet fuel Tank and Pump Containment
- Solid Waste Disposal Site.

- Waste Oil Storage Containment

Milne Port Camp Site

- Bulk Fuel Storage Facility Containment
- Polishing/Waste Stabilization Pond
- Barrel Fuel Storage (Constructed as a 2 cell structure)
- Hazardous Waste Storage (Constructed as a 2 cell structure)
- Oil and Antifreeze Containment
- Jet "A" Pump Containment
- 5M Litre Steel Fuel Storage Tank Containment, now expanded to contain 48.25 m litres.
- New Effluent Pond to accommodate the new camp.

Attached, herewith, is Barry Martin's 2013 geotechnical report which presents the 2013 findings and recommendations for the aforementioned structures. Sections 2.0 and 3.0 of this letter summarize Baffinland's plan for implementing Genivar's recommendations. In some cases, corrective actions were taken while Barry Martin was on site.

The recommendations as presented in the geotechnical report for infrastructure and the implementation plan for each are presented in Sections 2.0 and 3.0, below. Where this is no mention of particular infrastructure, there were no recommendations for same.

2. MARY RIVER MINE CAMP RECOMMENDATIONS

- **Bulk Fuel Storage Facility Containment**

There was a minor concern at the load-out end of the facility where the gravel ramps over the berm had worn down and some gravel from the ramps had migrated into the loading area at the end of the dyke. Mr. Martin noted in his report that some gravel was removed while he was on site and that with the gravel removed, there are no further recommendations for this infrastructure.

- **Generator Fuel Storage Facility Containment**

There was a small amount of water ponded in the bottom of the containment at the time of the inspection. BIMC subsequently removed this water while Mr. Martin was at site and this was noted in his report.

Based on the need to contain 110 % of the bladder volume in the event of a fuel spill, the maximum volume of fuel permitted to be stored in the bladder in this facility as it is constructed, is 77,376 litres (76 cm height).

BIMC Action: BIMC will continue to control the amount of fuel to the stated volume as per current practice.

- **Polishing/Waste Stabilization Pond No. 1**

Some minor tears to the liner were noted at the top of the dyke likely originating from past activity. These tears were subsequently patched by Layfield Plastics in early September.

It was recommended that an elevation monitoring program on the top of the berm be continued during 2014.

BIMC Action: BIMC will ensure that one round of elevation monitoring measurements will be completed prior to the 2014 annual inspection.

- **Polishing/Waste Stabilization Pond Nos. 2 and 3**

It was recommended that an elevation monitoring program on the top of the berm be continued during 2014.

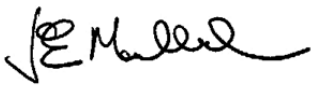
BIMC Action: BIMC will ensure that one round of elevation monitoring measurements will be completed prior to the 2014 annual inspection.

3. MILNE PORT CAMP RECOMMENDATIONS

There were no recommendations made for infrastructure located at the Milne Port Camp based on the attached geotechnical inspection report.

We trust that this submittal satisfies the requirements the geotechnical requirements as outlined in our water licence. Should you have any questions, please do not hesitate to contact Jim Millard, Environmental Manager, at 902-403-1337 or by e-mail at jim.millard@baffinland.com.

Best Regards,
Baffinland Iron Mines Corporation



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

Attach: Annual Geotechnical Inspection 2013, prepared by Barry Martin Consulting Engineer and Architect for BIMC, dated August 31, 2013.

cc. Stephen Bathory, (QIA)
Justin Hack, Erik Allain (AANDC)
Erik Madsen, Michael Anderson, Stephen Ranger (Baffinland)

ANNUAL GEOTECHNICAL INSPECTION
Baffinland Iron Mines Corporation
Mary River Project

Prepared for:

Mr. Dave McCann
Baffinland Iron Mines Corporation
2275 Upper Middle Road East, Suite 300
Oakville, Ontario L6H 0C3

Prepared by:

Mr. Barry H. Martin, P. Eng., MRAIC
Consulting Engineer and Architect
1499 Kraft Creek Road
Timmins, Ontario P4N 7C3

Reference 13-053
August 2013

Barry H. Martin, P. Eng., MRAIC
Consulting Engineer and Architect
1499 Kraft Creek Road
Timmins, Ontario P4N 7C3
705-268-5621 (tel)
705-360-3106 (cell)
barrymartin1499@gmail.com (e-mail)

August 31, 2013

Baffinland Iron Mines Corporation
2275 Upper Middle Road East, Suite 300
Oakville, Ontario L6H 0C3

Attention: Dave McCann
david.maccann@baffinland.com

RE: ANNUAL GEOTECHNICAL INSPECTION 2013-08-31
BAFFINLAND IRON MINES CORPORATION
OUR REFERENCE NO. 13-053

1.0 INTRODUCTION

Barry H. Martin Consulting Engineer and Architect completed the 6th annual water licence geotechnical inspection of the on-site containment structures at Baffinland Iron Mines Corporation Mary River Project.

The earthwork structures designed to carry water or waste were inspected in accordance with Dam Safety Guidelines 2007 and the solid waste disposal site, was inspected using similar guidelines set out.

The previous 5 annual water license geotechnical inspections were completed by Mr. Martin working on behalf of B. H. Martin Consultants Ltd and GENIVAR Inc. Mr. Martin was the design Engineer on all original structures.

The containment structures for the operation are located at two main campsites comprising the Mary River project being the Mary River site itself and the Milne Inlet site at the sea coast.

The soil structures reviewed are the following:

Mary River Mine Site

1. Bulk Fuel Storage Facility Containment
2. Generator Fuel Storage Facility Containment
3. Polishing Waste Stabilization Pond No. 1
4. Polishing Waste Stabilization Pond No.2 and No. 3 (Constructed as a 2 cell structure)
5. Helicopter Fuel Cell Containment.
6. Barrel Fuel Containment (Constructed as a 2 cell structure).
7. Stove Oil Storage
8. Enviro-Tank Storage (Constructed contiguous with hazardous waste storage and stove oil storage)
9. Hazardous Waste Storage
10. Jet Fuel Tank and Pump Containment
11. Solid Waste Disposal Site
12. Waste Oil Storage Containment

A site plan for the Mary River site showing most containment structures is attached.

Milne Inlet Site

1. Bulk Fuel Containment Facility
2. Polishing/Waste Stabilization Pond
3. Barrel Fuel Storage (Constructed as a 2 cell structure)
4. Hazardous Waste Storage (Constructed as a 2 cell structure)
5. Oil and Antifreeze Containment
6. Jet "A" Pump Containment
7. 5 M Litre Steel Fuel Storage Tank Containment which has now been expanded to contain 48.25m litres

8. New Effluent Pond to accommodate the new camp

This report presents the findings.

2.0 METHODOLOGY FOR INSPECTION

The geotechnical inspector was Mr. Barry H. Martin, P. Eng., who reviewed the sites on August 29, 30 and 31, 2013. The inspections were focused principally on the following aspects:

1. The structures were inspected for conformance with the design basis as presented in as-constructed and as-built drawings (provided in the first annual report).

2. The structures were specifically inspected for settlement, cracking and seepage through the berms.

3. The areas around the sites were examined for evidence of seepage.

   Construction drawings are attached for new structures.

   Photographs were taken to document observations made during the inspection and are attached.

3.01 MARY RIVER CAMP

3.01 General

There had not been a particularly large amount of rainfall in the month immediately preceding the inspection, although there had been a large amount of precipitation at the end of July.

Hence, it was expected that there would be some water in the containment dykes.

The weather at the time of the inspection was at freezing and minor snow flurries had occurred in the week preceding the inspection as well as during the inspection.

A monitoring surveillance program is in place to test storm water that does accumulate within the dykes. As required, water that does not meet water license effluent requirements is treated on site prior to release.

At the Bulk Fuel Storage Facility Containment , the water that collects within the dyke is treated at the end of the containment structure.

We report on the Waste Oil Storage Containment for the first time.

3.02 Bulk Fuel Storage Facility

General Conditions

The containment structure has not varied from its use as noted in the2009 report. Some bladders are empty and some bladders are currently full.

Stability

At the time of our review, the water had not been removed for a period from within the containment and water was ponding just above the level of the gravel within the bottom of the containment. There was still considerable factor of safety against failure of oil holding bladders within the dykes with the water level as it exists.

The structure was visually inspected for any signs of cracking or subsidence. There was no indication of any settlement seepage or cracking in the soil structures that formed the dykes. As well, there was no indication of seepage at the base of the structure around the exterior. The soil structure is considered to be stable in the present condition and is in conformance with the design basis for the facility.

There had been a considerable amount of precipitation prior to our inspection. The presence of the water in the gravel to just above the level of the top of the gravel is an indication of the integrity of the liner.

Capacity

There was a minor concern at the load-out end of the facility where the gravel ramps over the berm have worn down and some gravel from the ramps had migrated into the loading area at the end of the dyke.

Some grave was removed while we were on site to return this area to its design intent.

Recommendations

With the gravel removed, we have no further recommendations with respect to this structure.

3.03 Generator Fuel Storage Containment

General Conditions

The containment structure has not varied from its use since our 2010 annual inspection. At that time our recommendation was to limit the fuel contained in this containment facility to 77,376 litres.

There is currently one bladder in this containment facility that has a capacity when full of 120,000 litres. This bladder contains 77,376 litres when the bladder is 32" high. The guideline for Baffinland Iron Mines is to fill this bladder to no more than 76 cm (30") which represents 70,097 litres.

There is a sign posted to limit the bladder height at 30".

At the time of our visit on August 29, 2013, the bladder height was measured at 20". There was a small amount of water ponding in the bottom of the containment at the time of our review.

Stability

The structure was visually inspected for any signs of subsidence or cracking and no such indications were noted. There was no sign of seepage at the base of the structure noted. The soil structure is considered to be stable in its present condition and is in conformance with our design principles.

Recommendation

We recommended that the small amount of water ponding above the bottom of the containment be removed by creating a sump in the gravel and pumping out the water to below the gravel surface. This was done while we were on site.

We recommend that Baffinland Iron Mines continue to control the fuel in the bladder at a height of 30".

3.04 Polishing/Waste Stabilization Pond No. 1

General Conditions

PWSP No. 1 continues to be utilized as a holding facility for sewage plant effluent that does not meet water effluent quality criteria.

Currently the pond is be used primarily as a repository for sewage sludge that is periodically removed from the RBC.
The supernatant from PWSP No. 1 is periodically decanted to PWSPs Nos. 2 and 3 where it is tested and treated as required to meet Water Licence effluent requirements.

At the time of our visit there was considerable freeboard to accommodate further sewage and the structure readily conforms to its design intent.

Stability

Our review of the area around the pond at the base of the slopes showed no sign of seepage and hence we conclude that the liner has been effective in containing sewage and there are no tears or ruptures in the membrane, excepting some minor tears from past activity at the top of the dyke well above the allowable effluent level in the structure in the horizontal portion of the membrane.

A review of the top of the dyke showed no indication of cracking or settlement which would indicate stresses within the structure.

Most tears that had occurred in the liner on the top of the dyke have been patched during the period between reviews in 2008 and 2009 and are holding well. As well, there are no signs of weather related deterioration of the liner where it is exposed.

Monitoring points have been set up on the top of the dyke and have been monitored since 2009. Settlements of approximately 26 cm have occurred since that time. These settlements have not led to any stress cracks in the structure. These settlements are an indication of consolidation in the berm structure and the active layer beneath the dyke and are not considered to be of any concern.

There appears to be no sign of erosion of the dykes, even with the large amount of precipitation that occurred this current summer season.

Recommendations

We recommend that monitoring of the top of the berm continue on an annual basis through 2014. With the excellent condition of the dyke construction, we see no reason to complete this function other than annually prior to the next inspection.

3.05 Polishing Ponds/Waste Stabilization Ponds #2 and #3

General Conditions

This structure was designed and constructed as a 2 cell structure.

Treated sewage effluent from the RBC is currently discharged to PWSPs Nos. 2 and 3. The treated effluent is tested for Water Licence effluent requirements, treated if necessary, and discharged to the environment.

At the time of our visit there was considerable freeboard to accommodate further sewage and the structure readily conforms to its design intent.

Stability

Our review of the area around the pond at the base of the slopes showed no sign of seepage and hence we conclude that the liner has been effective in containing the sewage and there are no tears or ruptures in the membrane.

Longitudinal cracking which appeared in the dykes of PWSP#3 due to the melt of permafrost wedges in 2009 has not reoccurred and we consider this structure to be stable in its present condition.

Monitoring points have been set upon the top of the dyke and have been monitored since 2009. Settlements in the order of up to 26 cm have occurred since that time. These settlements have not led to any stress cracks in the structure.

There appears to be no sign of erosion of the dykes and plants are continuing to seed themselves on the dykes. This growth is minimal however.

Recommendations

We recommend that monitoring of the top of the berm continue on an annual basis through 2014. With the excellent condition of the dyke construction, we see no reason to complete this function other than annually prior to the next inspection.

3.06 Helicopter Fuel Tank Containment

General Conditions

The structure was designed and constructed as a single cell structure that contains a 1000 gal fuel storage tank.

The structure currently conforms to its design intent,

In the past, a liner clad wood curb had been added to the top of the berm to prevent the erosion of gravel off the berm, caused by pulling the fuel hose from within the dyke out to the helicopters to provide them with fuel.

Stability

Our review of the area around the pond at the base of the slopes showed no sign of seepage. There is a minor amount of water ponding in the bottom of the containment indicating the integrity of the liner.

A review of the exterior and the top of the berms showed no sign of cracking or settlement which would indicate stress within the structure.

The structure is considered to be stable in its present condition.

Recommendation

We have no recommendations with respect to this structure.

3.07 Barrel Fuel Containment

General Conditions

This particular structure which we called "Barrel Fuel Containment" in our previous inspection reports is a two cell structure which is currently used to accommodate cubes of lubricant in one cell and a number of stove fuel barrels on skids and a number of fuel dispensing tanks in the other cell.

Stability

Our review of the area around this containment structure showed no sign of seepage. This shows that there is reasonably little chance of tearing or rupture of the membrane having taken place.

A review of the exterior and top of the dyke showed no sign of cracking or settlement which would indicate stresses within the structure.

The structure is considered to be stable in its present condition.

Recommendations

We have no recommendations with respect to this structure.

3.08 Hazardous Waste Storage

General Conditions

This particular cell was constructed contiguous with an existing cell, which is referred to on site as the "Enviro Tank Storage", from drawings by our office in 2010 and conforms to our drawings. It is also contiguous with the Stove Oil Storage cell.

This structure contains barrels and containers of hazardous waste.

Stability

Our review of the area around this cell at the base of the slopes, showed no sign of seepage.

The structure appears stable in its present condition.

Recommendation

There are no recommendations at this time.

3.09 Enviro Tank Storage

General Conditions

This particular structure is constructed contiguous with the Hazardous Waste Storage constructed in 2010 and the Stove Oil Storage cell. It is now empty.

Our review of the area around this cell at the base of the slopes showed no sign of seepage.

The structure is stable in its present condition.

Recommendations

There are no recommendations at this time.

3.10 Stove Oil Storage

General Conditions

This particular structure had been used to store barrels of stove fuel in 2011

The structure is currently empty.

This structure was constructed in accordance with a standardized drawing provided by this office utilizing a one piece liner.

Stability

Our review of the area around the containment structure shows no sign of seepage. This shows that there is reasonably little chance of tearing or rupture of the membrane having taken place.

A review of the exterior and the top of the dyke showed no sign of cracking or settlement which would indicate stresses with the structure.

The structure is considered to be stable in its present condition.

3.11 Jet Fuel Tank and Pump Containment

This particular structure was reconstructed based on our recommendation of the 2012 Geotechnical Inspection.

The construction was completed in accordance with our recommendations for such structures and the liner was constructed as a one piece liner with geotextile protection on both sides and gravel over the geotextile as protection.

The construction appears proper and the structure is in excellent condition.

Minor water ponding confirms the integrity of the liner.

Stability

Our review of the area around this cell at the base of the slopes showed no sign of seepage.

The structure is stable in its present condition.

Recommendations.

There are no recommendations at this time.

3.12 Solid Waste Disposal Site

Berms appear stable and no erosion appears to have taken place.

Solid waste is being placed at the edge of the site and progressively covered.

The disposal is being done in exact conformity with plans prepared and guidelines set out for disposal of solid waste.

3.12 Waste oil Storage Containment

This particular structure has been used to store small amounts of waste oil.

The structure was constructed in accordance with standardized drawings designed by myself and utilized a one piece liner.

Stability

Our review of the area around the containment structure showed no sign of seepage.

There was water ponding in the bottom of the containment structure proving the integrity of the liner.

A review of the exterior and top of the dyke showed no sign of cracking or settlement which would indicate stresses within the structure.

The structure is considered to be stable in its present condition.

Recommendations

We have no recommendations with respect to this structure.

3.13 Overview

This report is the 6th annual Geotechnical Inspection at the Mary River and Milne Inlet sites on behalf of Baffinland Iron Mines Corporation.

Over this five year period between the first and sixth inspections we have noted the following:

1. The weather conditions are such that little or no erosion takes place from wind or rain and the dykes constructed of the sand/gravel soil remain stable at slopes of 3:1 and 4:1.

2. The dykes, after a 5 year period still have only minor vegetation growing on the horizontal surfaces and it shall most certainly take decades for the dykes to naturally vegetate to form a stabilized surface.

   Nonetheless, there has been no erosion to the surface over the last 5 year period.

3. With the construction of the new camp and facilities in process much of what has been reported on is due for demolition in the immediate future.

4.0 MILNE INLET

4.01 General

As with Mary River, the containment facilities over the 5 years that we have been doing Annual Geotechnical Inspections for, have changed in function from their initial use.

In order to maintain continuity, we have maintained the same names as with previous reports.

For example, the Hazardous Waste Containment structure is still a containment structure that is in excellent condition, but it is no longer being used to contain hazardous waste. Instead, this structure is now used to contain cubes of lubricant and barrel fuel. In this report, it still referred to as Hazardous Waste Containment as was its first use for continuity in the reports.

As well, there are new geotechnical structures that have been added to the list of geotechnical structures. These new geotechnical structures are the pads upon which the very large 12M litre and smaller fuel tanks sit upon, the containment dykes around this very large tank farm and the new effluent pond for the new sewage plant.

These structures have been reviewed.

4.2 Bulk Fuel Containment Facility

General Conditions.

This particular containment has been in place for in excess of five years. It is currently being decommissioned and the last of the fuel is being removed from a small number of remaining bladders.

As well, the last of the oil impacted water contained in this containment area is being treated.

The dykes around this containment areas have remained stable and the ponding of water confirms the integrity of the liner.

It is intended that the oil impacted sand in the containment facility be landfarmed in the next season being 2014. We understand that this oil impacted sand shall remain in the containment area until the landfarm treatment area is constructed.

The structure around the fuel bladdders and the area formerly occupied by fuel bladders conforms to the original design.

A review of the interior of the containment showed minor ponding of water. The ponding of water, although minor, confirms the integrity of the structure.

The treatment system used to treat the water which collects in the structure, is in place and operational and we understand shall remain so until the structure is decommissioned.

Stability

Our review of the area around the pond at the base of the slopes, showed no sign of oil, water, or oil/water mixture and hence we conclude that the integrity of the liner, has been maintained. There were no tears or ruptures in the liner observed.

There was no sign of any settlements or seepage, at the base of the soil structures forming the dykes.

The structure is considered to be stable in its present condition.

Recommendations

The performance of the structure has been tested since 2009 with the ponding of water. The observations noted during past inspections have supported the conservative design of the structure. We have no recommendations at this time.

4.03 Existing Polishing/Waste Stabilization Pond

General Conditions

This particular pond is the original PWSP that was constructed prior to 2008, is associated with the original sewage plant, and is servicing the man camp that is still in place.

The PWSP was designed as storage and polishing of effluent from the man camp that could not be immediately released to the environment.

The camp was occupied with a large construction crew and the sewage plant was operating as designed. The PWSP was not being utilized to contain additional effluent at the time of our review.

There was considerable capacity remaining in the PWSP at the time of our inspection.

Currently the PWSP conforms to the design basis for the facility.

Stability

With the PWSP constructed as it is, the structure is considered stable for long term use.

There was no sign of seepage at the bottom of the dyke. There were no signs of settlement or cracking, which are signs of stress in the structure.

Recommendations

Currently, the Milne Inlet PWSP conforms to the design intent and we have no recommendations.

4.04 Barrel Fuel Storage

General Conditions

This particular structure is constructed as a two cell structure.

This structure was originally intended for use as barrel fuel storage. However with time, this structure's use changed to that of storing lubricant cubes as well as barrel storage.

For continuity, we continue to refer to this storage/containment structure as Barrel Fuel Storage.

The structure around these two cells conforms to standardized drawings, prepared by our office for such a structure.

At the time of our inspection, there were two cells in use with minor water ponding in the bottom of the two cells.

Stability

Our review of the area around the ponds, at the base of the slopes, showed no signs of seepage.

The structures are considered stable in their present conditions.

Recommendations

We have no recommendations with respect to this structure at this time.

4.05 Hazardous Waste Storage

General Conditions

This particular structure is constructed as a 2 cell structure.

The structure conforms to the design basis for the facility.

At the time of our last inspection, this structure was utilized to store hazardous waste contained in barrels.

Since last year, the waste has been tested and hazardous materials have been removed and are in the process of being shipped out off site. Materials that have proven to be non-hazardous are currently in barrels adjacent to the structure awaiting disposal.

This containment structure, is now used as containment for barrel fuel and lubricant cubes.

The minor ponding of water in the bottom of the cells confirms the integrity of the liner.

Stability

Our review of the area around the dykes, at the base of the slopes, showed no sign of seepage.

There were no signs of stress noted in the structure. The structure is considered stable in its present condition.

Recommendations

Currently, this containment structure conforms to the design intent and we have no recommendations.

4.06 Oil and Antifreeze Containment

General Conditions

This particular structure is located between the air strip and the Bulk Fuel Storage.

The structure around this containment area conforms to standardized drawings prepared under my direction in the past.

Stability

Our review of the area around the structure at the base of the slopes, showed no signs of seepage.

There was no signs of stress in the dykes and the structure is considered stable.

Recommendations

We have no recommendations with respect to this structure.

4.07 Jet "A" Pump Containment

General Conditions

This small cell on the north side and adjacent to the Bulk Fuel Storage Containment is to control spillage during refuelling.

There was water ponding above the sand cover which confirms the integrity of the liner.

Stability

Our review of the area around the base of the dykes, showed no sign of seepage.

There was no cracking or settlement observed in the dyke structures.

Recommendations

We have no recommendations at this time with respect to this structure.

4.08 Fuel Tank Farm

General Conditions

This particular structure was discussed in the 2012 Annual Geotechnical Report as "5M litre Steel Fuel Storage Tank Containment".

The fuel storage facility has been considerably expanded since 2012.

There has been a second 5m litre tank constructed and two 12M litre tanks are under construction.

Pads have been constructed for one more 12 M litre tank and 3 more 0.75 M litre tanks which were being delivered as the report was being written.

We noted the following:

1. The containment structure was put in place prior to the construction of the tanks and the pads for the tanks were constructed with the containment dykes.

2. The dykes that had been constructed as containment for the initial 5 M litre tank, were incorporated into the overall dyke construction for the entire tank farm.

3. The drainage of the tank farm structure now utilizes the sump constructed for the initial tank.

4. The dykes incorporate rip-rap on the exterior of the dyke.

5 We would classify the quality of the work in the construction of the dykes and pads, including the base of the structure as exceptionally good and of a quality that should last for decades.

Stability

We noted no sign of weakness in any of the construction.

Design

We attach a copy of the design drawings of the fuel storage site being the following Hatch drawings:

2613-10-35-001
2613-10-035-002
2613-10-035-004

These drawings set out the plan, section, and details of the containment structure. The construction conforms to these drawings.

4.09 New Effluent Pond

General Conditions

This New Effluent Pond was constructed in 2013 to accommodate the new sewage plant and serve as a PWSP for this new plant which had yet to be put into operation at the time of our inspection.

We noted the following;

1. The pond has a design capacity of 1080 m^3 with 1.0 m freeboard.

2. The dyke is constructed of 150 mm crushed mine rock material that is not subject to erosion.

3. The dyke has a summer design capacity of 2230 m^3 with 0.3 m freeboard.

4. The quality of construction is such that this structure should last for many decades.

Stability

We noted no sign of weakness in any of the construction.

Design

We attach a copy of the following Hatch drawing:

2735-10-035-0001
2735-10-035-0002

These drawings set out the plan, section, and details of the Effluent Pond construction.

4.10 Overview

The permanent facilities for Milne Inlet are currently under construction and many of the facilities reported on are scheduled for decommissioning over the next 12 months as the new facilities are constructed.

Design drawings and photos of new facilities have been included with this report.

Respectfully submitted

Barry H. Martin, P. Eng., MRAIC
BHM/jw

REGISTERED PROFESSIONAL ENGINEER
B.H. MARTIN
LICENSEE
27/10/13
NWT/NU

APPENDIX D.3
PHOTO JOURNAL

D.3.1 Mary River Mine Site Photo Sheet
ᓄᓕᒻᒥᐅ ᐅᓴᖅᓯᓂᐊᖅᑲᓇᑕ ᐊᑦᓯᓐᓂᒍᐊᓕ ᐃᓕᓴᕐᕕᖅᓯᒪᔪᖅ

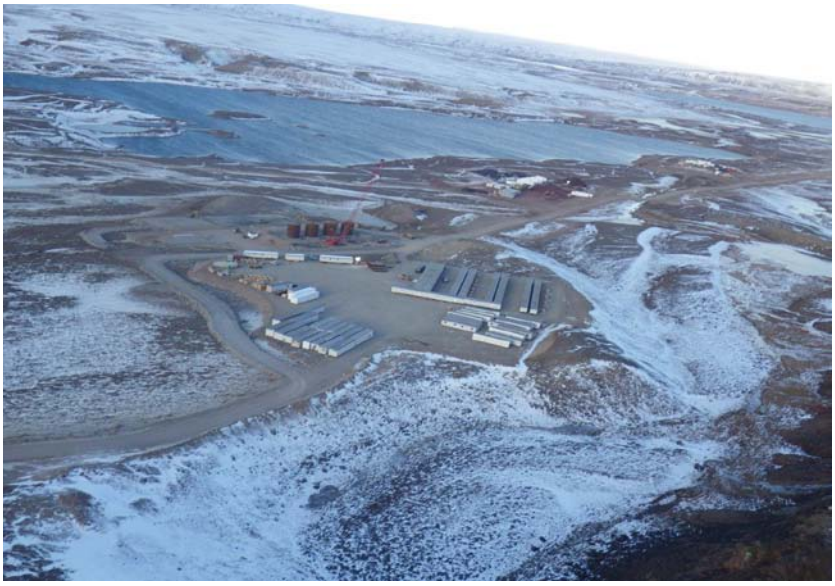


PHOTO 1 Mary River Mine Site Complex Aerial Layout #1 – During 2013 Construction Program

ᓄᓗᒍᖏᑦ ᐅᕙᖓᓄᐊᖅᑐᖅ ᐊᑲᐹᑎᐊᖅᓯᒪᔨᒪᓕᐊᓗᐊᓗᒃ ᖃᐅᖅᓯᒍᓐᓇᖅ

ᐊᖏᔪᓕᐅᖅᓯᒪᔨᖅ ᓴᓇᕗᑦ 1 – ᑕᐅᖅᓯᓂ 2013-ᖓᑎᓗᓄᑕᒍ ᐃᓕᓴᕐᓕᐅᖏᓐᓄᑦ ᐱᓕᕆᐊᒃᓴᖅ

PHOTO 2 Mary River Mine Site Complex Aerial Layout #2 – During 2013 Construction Program

ᓄᓗᒍᖏᑦ ᐅᕙᖓᓄᐊᖅᑐᖅ ᐊᑲᐹᑎᐊᖅᓯᒪᔨᒪᓕᐊᓗᐊᓗᒃ ᖃᐅᖅᓯᒍᓐᓇᖅ

ᐊᖏᔪᓕᐅᖅᓯᒪᔨᖅ ᓴᓇᕗᑦ 2 – ᑕᐅᖅᓯᓂ 2013-ᖓᑎᓗᓄᑕᒍ ᐃᓕᓴᕐᓕᐅᖏᓐᓄᑦ

ᐱᓕᕆᐊᒃᓴᖅ

PHOTO 3 Light vehicle fleet at Mary River Mine Site
ᐊᖏᑕᐊᖏᓂᖅᓴᐅᑦ ᓄᓇᒃᑯᑎᑦ ᓄᓕᐅᖅ ᐅᓴᕐᓂᐊᕐᕕᖏᓐᓂᒃ

PHOTO 4 Mary River Mine Site Safety Meeting
ᓄᓕᐅᖅ ᐅᓴᕐᓂᐊᕐᕕᖏᓐᓂᒃ ᐊᑦᑕᕐᓇᖅᑕᐅᑕᒪᓂᕐᒧᑦ ᑲᑎᒪᓂᖅ

PHOTO 5 Mary River Mine Site Complex Overall Progress
November 2013
ᓄᓕᒻᓂᓕ ᐅᓴᖏᓂᐊᖏᕐᓇᖅᑎᑦ ᐃᓕᓴᕆᓕ ᐱᓕᕆᐊᒃᖏᖅ ᓄᓇᐱᓕ 2013-ᒥ

PHOTO6 5 Geochemical Investigation Drilling Equipment at Deposit #1
ᓄᕆᐅᐸ ᖃᓄᐃᓕᓚᖅᓂᓕᐊᓂᕆᑐᓂ ᖃᐅᐅᔨᕆᐊᖏᓂᖏᓪᓗᑦ ᐱᓕᕆᔨᐸᑎᑦ ᑕᐃᑲᓂ
ᐅᓴᖏᓂᐊᑲᒃᑎ ᓇᓴᐅᑎᓕᖏᑦ 1

PHOTO 7 New Baffinland Equipment arrived on the 2013 Sea Lift
ᓄᒋᑦ ᓄᓕᒃᖏᓂ ᐱᓕᓴᐃᑎᖏᑦ ᑎᑭᓪᗜᑦᑐᑦ 2013-ᖃᐅᓕᓗᖃ ᐅᒥᐊᖅᓯᐊᖅᑯᑦ

PHOTO 8 Mine Site Camp Pad June 2013
ᐅᓴᖏᓂᐊᖅᓵ ᓄᓇᓕᖅᑲᓵᓚᓂ ᐃᓕᓴᕐᓵᓚᓂ ᐋᑦ 2013

PHOTO 9 Installation of Sewage Truck Building
ᐊᑦᑭᑕᐅᑎᑦᓗᒍ ძᕕᖏᑕᐅᑎᒧᑦ ᓄᓇᓯᐅᑎᑲძᕕᖏᓚᑦ

PHOTO 10 Internal components of the Wastewater Treatment Facility utilizing MBR Technology
ᐃᓗᐊᓂ ᐃᓕᓴᐅ ᐃᒥᐢᓗᓴᒧᑦ ᓴᓗᒪᖏᑲᐃᔨᐊᑎᖏᑲᕕᖏᓚᑦ ᐱᓕᕆᔨᐊᑎᖏᖏᑎᑎᓴᒪᑦ ᐃᒥᐢᒥᑦ
ᐊᑐᖏᓐᓂᑭᓐᓇᖏᓯᑎᑎᓂᕐᒥᑦ ᐊᑦᑭᑭᑎᐊᖏᓯᒪᓴᕆᐊᓕᖅᒥᑦ

PHOTO 11 Wastewater Treatment Facility utilizing MBR Technology and adjacent Sewage Truck Building
ᐃᒥᖅᓗᖏᑦ ᓴᓗᒪᖅᓴᐃᘃᖅᖃᕐᐳᖅ ᐱᓕᓐᔨᐊᑎᖅᑲᖅᑎᕐᓂᖅ MBR
ᐊᑲᖅᑭᑎᐊᖅᓯᒪᔪᓐᓇᓕᓕᒃᑭᖅ ᐊᓚᒪᓗ ᓴᓂᕆᑎᐊᖏᓚᓂᑐᖅ ᑯᘃᘃᑦᑕᖅᑕᐅᓂᑯᑦ
ᓄᓇᓯᐅᑎᖅᑯᘃᖏᓪᓗᑦ

PHOTO 12 Wastewater Treatment Facility utilizing MBR Technology and adjacent Sewage Truck Building (alternate view) November 2013
ᐃᒥᖅᓗᖏᑦ ᓴᓗᒪᖅᓴᐃᘃᖅᖃᕐᐳᖅ ᐱᓕᓐᔨᐊᑎᖅᑲᖅᑎᕐᓂᖅ MBR
ᐊᑲᖅᑭᑎᐊᖅᓯᒪᔪᓐᓇᓕᓕᒃᑭᖅ ᐊᓚᒪᓗ ᓴᓂᕆᑎᐊᖏᓚᓂᑐᖅ ᑯᘃᘃᑦᑕᖅᑕᐅᓂᑯᑦ
ᓄᓇᓯᐅᑎᖅᑯᘃᖏᓪᓗᑦ (ᐊᓯᐊᔪᖏᓚᖅ ᑕᑯᓴᖅᓴᖅ) ᓄᓇᐱᓐ 2013

PHOTO 13 Water (Fresh) Treatment System Installation November 2013
ᐃᒥᖅ (ᐃᒥᕐᑎᐊᕐᒪᖅ) ᓴᓗᒪᖅᓴᐃᔨᔪᑎᖏᑦᑐᒃ ᐱᓕᓐᓄᔨᔪᑎᖏᑲᒃ ᐊᑲᕈᒃᑕᐅᑦᓗᓂ ᓄᕆᐱᓐᓇ 2013-ᒥ

PHOTO 14 Water Building - Mechanical Installation November 2013
ᐃᒪᖏᕐᕕᒃ – ᐊᐅᓪᓗᐅᑎᖏᑦ ᐊᑲᕈᒃᑕᐅᔨᑦ ᓄᕆᐱᓐᓇ 2013-ᒥ

PHOTO 15 Potable Water Building October 2013
ᓇᒧᑐᐃᓐᓇᕆᕐᓴᖅ ᐃᒥᖅᑲᕆᑎᑎᕐᔾᔨᕕᑎᕆᔨᓴᒃ ᐅᕆᑐᐱᓗᓐ 2013-ᒥ

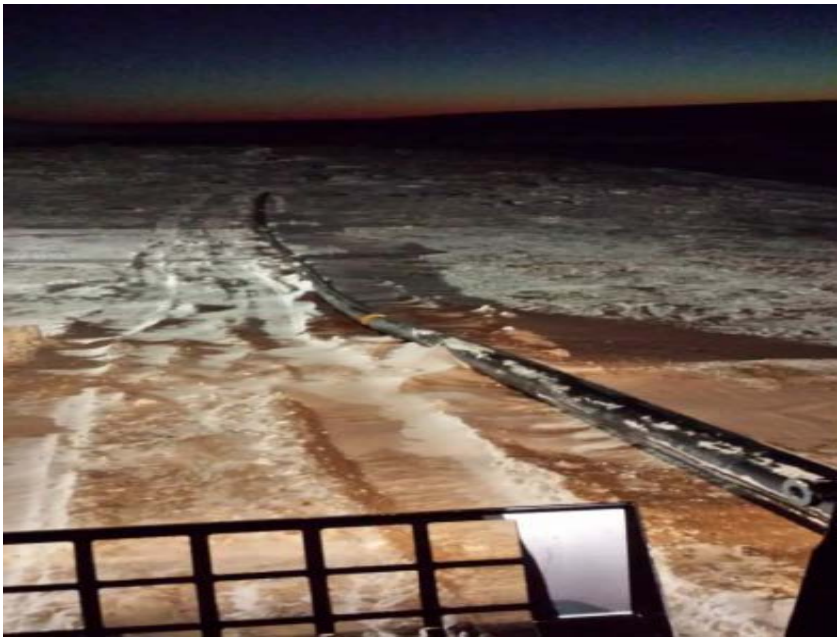


PHOTO 16 Raw Water Intake Pipeline
ᓴᖅᑭᕆᓪᓕᖅᑎᑦᑐᑎᒃ ᐃᒥᖅᒥᒃ ᒥᓂᕆᕆᐊᖅᓴᖏᓐᓄᑦ ᓯᓚᓂᓪᓕᖅᒥ

PHOTO 17 Boom deployment and Silt Curtain installation at Camp Lake for Raw Water Jetty
ᐳᒃᑕᑰᕈᑎᓂᑦ ᑲᑎᖅᓱᐃᔾᔪᑎᓂᑦ ᐊᒻᒪᓗ ᓯᕐᑲᓕᐊᕐᔪᐊᓗᖕᒥᒃ ᕿᓚᖅᓯᒪᓗᒍ ᓄᓇᓕᖅᑲᕐᕕᐅᑉ ᑕᓯᖓᓂ ᓴᕿᒃᓯᒪᙱᑦᑐᒥᒃ ᐃᒥᖃᕈᑕᐅᓗᓂ ᑰᖕᓂᖓ

PHOTO 18 Mine Site Raw Water Jetty Silt Curtain at Camp Lake
ᐅᔭᕋᖕᓂᐊᕐᕕᒃ ᓴᕿᒃᓯᒪᙱᑦᑐᒥᒃ ᐃᒥᕐᒧᑦ ᑰᓪᕕᒃ ᓯᕐᑲᓕᐊᕐᔪᐊᓗᖕᒥᒃ ᕿᓚᖅᓯᒪᓗᒍ ᓄᓇᓕᖅᑲᕐᕕᐅᑉ ᑕᓯᖓᓂ

PHOTO 19 Sheardown Lake Winter Water Quality Sampling 2013
ᓱᐅᑕᐅᓐ ᑕᖅᓱᖅ ᐅᑭᐅᖅᑯᑦ ᐃᒪᖏᓂᓂ ᐱᐅᓂᖏᓂᑦ ᖃᐅᐅᓴᖏᓂᖅ 2013-ᒥ

PHOTO 20 Winter Water Quality Sampling Program Sheardown Lake
ᐅᑭᐅᖅᑯᑦ ᐃᒥᐅᐸ ᐱᐅᓂᖏᓂᑦ ᖃᐅᐅᓴᖏᓂᖅ ᐱᓕᕆᔨᖅᖏᖅ ᓱᐅᑕᐅᓐ ᑕᓱᖏᒥ
ᐃᒥᖅᑕᖏᕐᓇᖏᒥ

PHOTO 21 Steel Tank Bulk Fuel Storage Facility Pad August 2013
ᓴᖏᕋᐃᑦ ᖃᓕᑕᐅᔪᕋᐊᖅᑐᓂᒃᓱᓄᑦ ᐅᖅᓂᖃᐅᑎᐊᓗᐃᑦ ᑐᖅᑯᐃᓂᒪᒃᓱᑦ ᐃᓄᓐᓴᒃ ᐊᔪᕐᑎᑕ 2013

PHOTO 22 Installing arctic liner at Steel Tank Bulk Fuel Storage Facility engineering containment structure August 2013
ᐊᐧᖅᑭᖅᑕᐅᑎᓪᓗᒍ ᐅᑭᐅᖅᑕᖅᑐᖅᓂᐅᑦ ᐃᔨᔪᐃᐅᑦᑯᑎ ᑕᐃᑲᓄᓂᓴᒃ ᖃᓕᑕᐅᔪᕋᐊᖅᑐᓂᒃᓱᓄᑦ ᐅᖅᓂᖃᐅᑎᐊᓗᐃᑦ ᐃᓄᒋᔪᐅᔨᖅ ᐊᓇᔪᖅᓀᐊᖓᓪᓗᒍ ᐃᒪᖃᖅᓄᐊᖅᑐᓗᒃᑐᓂ ᐃᓄᖅᓀᐊᖓᔪᓂᒃᓗᒍ
ᐊᔪᕐᑎᑕ 2013–Γ

PHOTO 23 Steel Tank Bulk Fuel Storage Facility September 2013
ᐃᔅᓴᐃᑦ ᖃᓕᑕᐅᓴᖅᓯᐊᖃᓕᐅᔨᕐᓂᐃᓄᑦ ᐅᖃᓗᖃᓕᐅᑎᐊᓗᐃᑦ ᑐᖃᓄᐃᔪᒪᕐᓂᐃᑦ ᓗᑎᐱᓗᒃ 2013

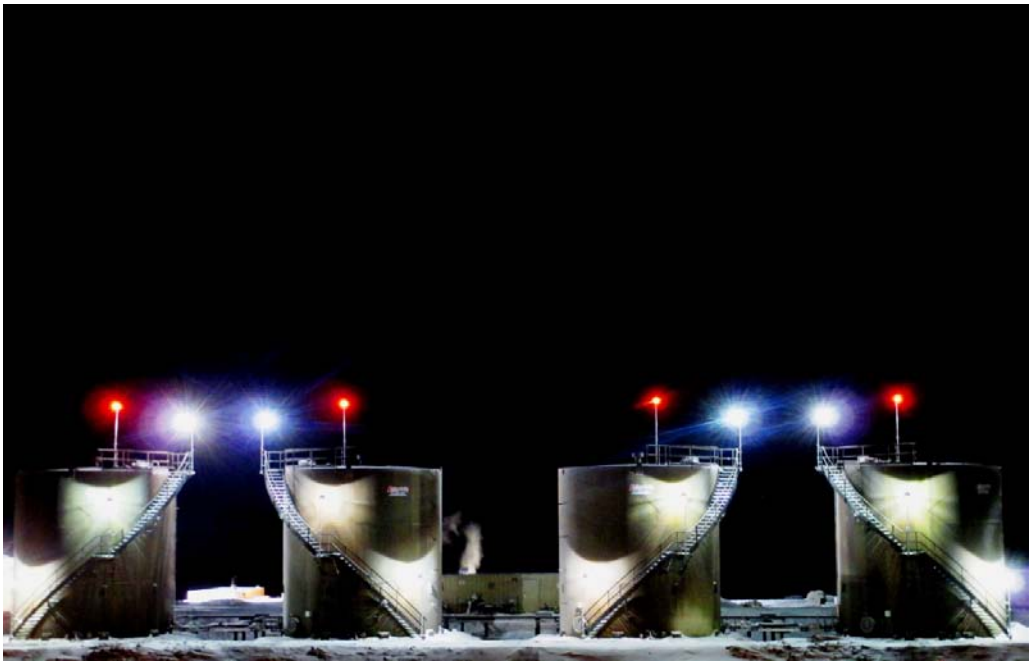


PHOTO 24 Steel Tank Bulk Fuel Storage Facility December 2013
ᐃᔅᓴᐃᑦ ᖃᓕᑕᐅᓴᖅᓯᐊᖃᓕᐅᔨᕐᓂᐃᓄᑦ ᐅᖃᓗᖃᓕᐅᑎᐊᓗᐃᑦ ᑐᖃᓄᐃᔪᒪᕐᓂᐃᑦ ᑎᓗᐱᓗᒃ 2013

D.3.2 Milne Port Photo Sheet

ᐃᖅᐱᑭᑐᕋᐊᕋ ᑐᓪᓕᖅᑕᕋᘐᖓᑕ ᐊᕐᕕᖏᓚᐊᕐᓂ ᐃᓕᓴᘐᖓᑦ

PHOTO 1 Aerial View - Steel Tank Bulk Fuel Storage Facility and infrastructure laydown June 2013
ᖃᒃᖓᒪᑕᓯᒥᑦ ᑕᐅᑐᑐᓗᒍ – ᓴᖏᕐᕿᐃᑦ ᖃᒃᑕᑕᐅᕐᕋᐊᖃᒃᐅᓯᖏᓐᓄᓕᒋᐊᓗᐃᑦ ᑐᖃᓯᖃᐅᑎᐊᓗᐃᑦ ᑐᓴᒻᒥᐊᓯᒪᓂᖓᓪᓚᑕ ᐃᓕᓴᒪᓕᒃᖓᓪᓚᑲ ᓱᓂ 2013

PHOTO 2 Aerial View – Milne Port Infrastructure Layout June 2013
ᖃᒃᖓᒪᑕᓯᒥᑦ ᑕᐅᑐᑐᓗᒍ – ᐃᒃᐱᕈᑐᕐᕋᐊᒥ ᑐᓪᓗᒃᑕᕐᖏᒃ ᐊᖃᒃᑭᒃᓯᖃᒃᓯᒪᓕᒃᖓᓪᓚᑕ
ᐃᓕᓴᒪᓕᒃᖓᓪᓚᑲ ᓱᓂ 2013

PHOTO 3 Aerial View - Steel Tank Bulk Fuel Storage Facility and infrastructure laydown September 2013
ᖃᒃᖏᕐᓂᒍᕐᒥᑦ ᑕᐅᑐᓗᓄᔪᒍ – ᓴᖅᓴᕐᕕᑦ ᖃᒃᑦᑕᐅᕐᓴᕐᔪᐊᖃᒃᐅᓯᖏᓐᓄᑐ ᐅᕙᓯᖃᒃᐅᑎᐊᓗᕕᑦ ᑐᕙᑯᓕᓯᖏᑦ ᐊᒻᒪᓗᓄ ᐊᑲᒃᑭᒃᓯᕙᒃᓂᕐᓂᖅ ᕕᓕᓯᒪᓂᖅᓂ ᓯᑎᐱᓗ 2013

PHOTO 4 Aerial View – Infrastructure Layout September 2013
ᖃᒃᖏᕐᓂᒍᕐᒥᑦ ᑕᐅᑐᓗᓄᔪᒍ – ᐊᑲᒃᑭᒃᓯᕙᒃᓂᕐᓂᖅ ᕕᓕᓯᒪᓂᖅᓂ ᓯᑎᐱᓗ 2013

PHOTO 5 Sealift vessel in Milne Port August 2013
ᐅᒥᐊᖅᓯᐊᓱᑯᑦ ᐅᓗᓴᑕᐅᑎ ᐃᓱᐹᑦᑐᖅᓯᐊᑦ ᑐᓪᓴᑕᖅᖃᓚᓂ ᐋᔪᓐᑎ 2013

PHOTO 6 Marine Mammal Monitoring near Milne Port during sealift (Bruce Head) August 2013
ᑕᓪᓕᐅᖅᑎᐅᑦ ᐳᐃᒋᑦ ᖃᐅᔨᓴᖅᑕᐅᓪᓗᑎᓱ ᖃᓄᑎᒃᖁᓚᓂ ᐃᓱᐹᑦᑐᖅᓯᐊᑦ ᑐᓪᓴᑕᖅᖃᓚᓕ
ᐅᒥᐊᖅᓯᐊᓱᑯᑦ ᑎᑭᐅᔨᓴᖅᓕᖅᑎᑦᓪᓗᒍ (ᐳᒋᓵ ᕿᐃᐊᕐᓴ) ᐋᔪᓐᑎ 2013

PHOTO 7 Polishing Waste Stabilization Pond (PWSP) Pad before –sub grade prepared July 2013

ᖃᑭᓪᓕᐊᔨᐸᑦ ᐊᑐᖅᓂᓗᐃᑦ ᖃᐅᔨᐃᑐᖅᓯᒪᓕᒃᑐᑦ ᑕᓯᐊᖅᓱᒃ (PWSP)
ᒪᓪᐊᓪᓕᐅᑕᓗᓂ ᓯᕗᓂᖏᒍᑦ -ᐊᒋᐅᓂᑐᑦ ᒪᓂᖅᑲᖅᓯᐅᑕᓗᓂ ᐃᖃᑭᐅᓯᖅᑕᐅᔨᖅ ᔨᓪᐃ 2013

PHOTO 8 Polishing Waste Stabilization Pond (PWSP) engineered containment structure arctic liner installation July 2013

ᖃᑭᓪᓕᐊᔨᐸᑦ ᐊᑐᖅᓂᓗᐃᑦ ᖃᐅᔨᐃᑐᖅᓯᒪᓕᒃᑐᑦ ᑕᓯᐊᖅᓱᒃ (PWSP)
ᓴᓇᓯᒪᓂᖅᓴᓪᑕᐅᑕᐅᔨᖅ ᐃᓴᖃᐅᐃᑲᔪᑎᖓᒍ ᓴᓇᓯᒪᓂᑲᖅᖓᒃ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ
ᐃᓴᖃᐅᐃᑲᔪᑎᑎ ᐃᖃᑭᐅᓯᖅᑕᐅᔨᖅ ᔨᓪᐃ 2013

PHOTO 9 Aerial View – PWSP completed and operational September 2013
ᖃᓄᐃᑦᑐᑦ ᑕᐅᑐᓗᒍ – ᖃᓄᑦᓯᖏᓪᓗᐊᑦ ᐊᑐᖅᓯᓗᓂᐊᓕᒃ ᖃᓄᐃᓕᑐᐃᓐᓇᖅᑐᑦ ᐊᑐᖅᑐᓂᒃ 2013

PHOTO 10 Construction of Steel Tank Bulk Fuel Storage Facility Pad July 2013
ᓴᓇᓕᐅᔪᖅ ᓴᖅᓯᕆᐊᖃᑦ ᖃᓄᑕᐅᓕᖅᔪᐊᖅᑎᐅᓕᕆᓂᖅᓯᒪᓂ ᐅᖅᓄᓕᖅᑎᑎᐊᓗᐊᑦ ᑐᖅᓄᐊᓕᒫᓂᖅ
ᐃᓂᖅᒪ ᔪᓕᐃ 2013

PHOTO 11 Construction of Steel Tank Bulk Fuel Storage Facility Pad (alternate view) July 2013
ᐱᓇᓴᐅᔨᖅ ᐱᕕᕋᔭᐃᑦ ᖃᒡᑕᐅᓴᖏᔪᐊᖃᑦᑐᐅᓯᒪᔪᓂ ᐅᖅᓯᖃᑦᑐᑎᐊᓗᐃᑦ ᑐᓂᓯᔪᓂᒪᓕᕐᓂ ᐃᓂᖏᑦ
(ᐊᓯᐊᔾᔨᑦᑐᖅ ᑕᑯᔭᒃᑲᖅ) ᔪᓚᐃ 2013

PHOTO 12 Aerial View - Construction of Steel Tank Bulk Fuel Storage Facility
ᖃᒃᖏᑕᓯᒥᑦ ᑕᐅᑐᓗᔾᔪ – ᐱᓇᓴᐅᔨᖅ ᐱᕕᕋᔭᐃᑦ ᖃᒡᑕᐅᓴᖏᔪᐊᖃᑦᑐᐅᓯᒪᔪᓂᐅᖅᓯᖃᑦᑐᑎᐊᓗᐃᑦ
ᑐᖅᑯᐃᓯᒪᔨᕕᑦ ᐃᓂᖏᓂᒃ

PHOTO 13 300 Ton crane placing 1st 750,000L Jet A Tank
August 2013
300 ᐅᖏᑕᒪᐃᓐᓂᖏᐊᑦ ᑭᙵᖅᓯᕕᑎ ᐃᓕᓴᕐᓗᓂ ᓴᐅᑦᓕᓂᓂᒃ 750,000
ᓴᐱᕐᑦ A ᖃᖅᑕᐅᔨᖏᐊᖏᖅᑐᓴᐅᓂ ᐊᐃᔪᑎᑎ 2013

PHOTO 14 Installing roof on Tank #1 August 2013
ᐊᖏᑭᖅᑕᐅᓪᓗᓂ ᖃᖅᖏᒪ ᖃᖅᑕᐅᔨᖏᐊᖏᖅᑐᓴᐅᓂ ᐅᓴᕆᐅᑕ 1 ᐊᐃᔪᑎ 2013

PHOTO 15 North facing view of layout of Steel Tank Bulk Fuel Storage Facility September 2013

ᐅᐊᖏᓇᖅᓭᑦ ᐃᓗ ᖃᓄᓕᖅ ᑕᑯᒃᓴᐅᓗᓂᒃ ᐊᐸᖅᑭᓴᖅᓯᒪᓂᖏᓄ ᓴᓇᕆᔨᐃᑦ ᖃᐅᑕᐅᔪᕆᐊᖅᑲᓴᖅᓯᓇᓂ ᐅᖅᓴᖅᑲᐅᑎᐊᓗᐃᑦ ᑐᓂᓯᓂᐅᑎᓪᓗᒍ 2013

PHOTO 16 Aerial View – Milne Port Infrastructure Layout September 2013

ᖃᐅᖏᑕᓯᒥᑦ ᑕᐅᑐᓗᔪ – ᐊᐸᖅᑭᓴᖅᓯᒪᓂᖏᑕ ᐃᑕᓯᒪᓂᖏᓄ ᓴᑎᐱᓘᒍ 2013

PHOTO 17 Construction of Waste Management Building
ᕿᓭᓗᐅᓂᖅ ᕿᓂᕐᓄᑦ ᐊᐅᓪᓗᒍᕐᒪᑦ ᐃᓕᓴᖅ

PHOTO 18 Internal view of secondary chamber of new incinerator
ᐃᓗᐊᓂᕐ ᑕᑯᓗᒍ ᐱᖁᑦ ᐱᓪᓚᕐᓇᖅᑐᑦ ᓄᑦᑲᐸ ᐃᑭᕐᒪᑦᓇᖅ

PHOTO 19 Hazardous Waste waiting sealift backhaul at Milne Port
ᐅᓗᓚᐊᓇᖅᑐᑦ ᐃᑎᑕᐅᔪᑦ ᐅᑕᖅᑭᓂᖅᑎᑦ ᐅᒥᐊᕐᔪᐊᖅᑯᓂᖅᑕᖅᓴᖅᑎᓄᑦ
ᐊᐅᓪᐅᔾᔨᐅᕐᑯᓪᓗᑎᑦ ᐃᖅᐱᑭᑐᑐᕐᔪᐊᑦ ᑐᓪᓕᖅᑕᕐᕕᖏᓪᓗᑎᑦ

PHOTO 20 Milne Port Bulk Fuel Bladder Farm Decommissioning August 2013
ᐃᖅᐱᑭᑐᕐᔪᐊᕐ ᑐᓪᖅᑕᕐᕕᖏᓪᓗᑎᑦ ᐃᓗᐃᑲᑦ ᐅᖅᓯᖅᑎᓂᑦ ᐃᒪᕐᑲᐅᑎᑦ ᐃᓄᖏᓪᓗᑎᑦ
ᐊᑐᕐᖅᑕᐅᔾᔨᕈᓐᓇᖅᑐᑦ ᐊᔪᓵᑎ 2013

PHOTO 21 Sump pump in Bulk Fuel Bladder Farm during Decommissioning September 2013
ᐃᓕᒥᖅᓯᐃᓴᐊᑎ ᒥᓪᓗᐊᑭᑎᖏᑦ ᐃᓗᐃᑲᑦ ᐅᖅᓯᓱᖅᑦ ᐃᑲᖅᑲᐅᑎᑦ ᐃᓂᖏᑦ ᑕᐃᔨᓯᒪᓂ ᐊᑐᖅᑕᐅᓴᕐᕿᓂᖅᑎᓪᓗᑎᑦ ᓯᑎᐱᓗ 2013

PHOTO 22 North west view of sump pump in Milne Port Fuel Bladder farm during decommissioning September 2013
ᐅᐊᖏᓐᓇᓗᑲᑎᒍᑦ ᒥᑲᓴᑦ ᑕᑯᓗᒍ ᐃᓕᒥᖅᓯᐃᓴᐊᑎᑦ ᒥᓪᓗᐊᑭᑎᖏᑦ ᐃᑲᐱᑦᑐᖅᐊᑦ ᑐᓴᑲᑕᖅᓵᖏᓂ ᐅᖅᓯᓱᖅᑦ ᐃᒪᖅᑐᐅᑎᑦ ᐃᓂᖏᑦ ᑕᐃᔨᓯᒪᓂ ᐊᑐᖅᑕᐅᓴᕐᕿᓂᖅᑎᓪᓗᑎᑦ ᓯᑎᐱᓗ 2013

PHOTO 23 Wastewater Treatment Facility utilizing MBR Technology and adjacent Waste Management Building

ᐃᒥᕐᓗᖓᒍᑦ ᓂᓗᒪᖅᓴᐃᖅᑲᖏᖅ ᐱᖏᕐᒃᓂᕆᑎᑦᓗᒍ ᐃᒪᕐᒥᑦ
ᐊᑐᕆᖅᓂᓂᖅᓗᒋᖅᓂᕆᐊᖅᑭᕐᒪᐊᖅᓂᒪᕗᐊᓕᒃ ᐊᓪᒪᓗ ᕆᑲᓂᑯᕆᐊᖅᑕᖏᑐᒃ ᓴᓂᕐᑐᑦ
ᐊᐅᓪᓕᕆᑎᖏᑕ ᐃᓕᓗᖓᓂᓂᑦ

PHOTO 24 Construction of Water Building and Water (Fresh) System September 2013

ᓇᓴᐅᓂᖓ ᐃᒪᕐᑲᐅᑎᕆᑎᖏᓕᕆᑦ ᐊᓪᒪᓗ ᐃᒪᕐᑲ (ᐃᒥᕐᑎᐊᖅᑲᑦ) ᐱᓕᕆᔨᐅᑎᖓ ᓂᑎᐱᕆ 2013

D.3.3 Steensby Port Photo Sheet

ᑲᖏᕐᓂᓴᐊᕐ ᑐᓴᑲᕐᕆᖏᑕ ᐊᔪᖅᔭᐊᕐ ᐃᓕᓴᕆᖏᑦ

PHOTO 1 Site overview of Steensby Port exploration camp September 2013
ᐃᓂᒃᖁᓱᓂ ᑕᑯᔪᐃᓐᓇᓗᓗᒍ ᑲᖏᖅᓯᒃᐳᒃᓴᐊᐸᑦ ᑐᓪᓚᕐᖁᕐᓂᒃᑯᓂ ᖃᓄᐃᖏᒃᐱᐊᓂ ᓄᓇᕗᑦ
ᓯᑎᐱᓗ 2013

PHOTO 2 Steensby Port Exploration camp September 2013
ᑲᖏᖅᓯᒃᐳᒃᓴᐊᐸᑦ ᑐᓪᓚᕐᖁᕐᓂᒃᑯᓂ ᖃᓄᐃᖏᒃᐱᐊᓂ ᓄᓇᕗᒻᒥᒃ ᓯᑎᐱᓗ 2013

PHOTO 3 Water sampling near Steensby Port
ᐃᒥᖅᒥᐅᒃ ᖃᐅᔨᓴᕐᑎᑐᓂᓕᓄ ᑲᖏᑎᖅᓱᓚᐅᕐᓂᐊᕐᓴᖅ ᑐᓴᕐᕕᖏᓐᓂᒃ

PHOTO 3 Aerial Site Layout Steensby Port August 2013
ᖃᐅᖏᑕᓗᒃᑯᑦ ᐅᓴᖅᓂᐊᖅᐱᐅᔾ ᐊᑲᕈᑲᓗᒪᓂᖏᑐ ᑲᖏᑎᖅᓱᓚᐅᕐᓂᐊᕐᓴᖅ ᑐᓴᕐᕕᖏᓐᓂᒃ ᐊᔪᐠᑎ
2013

D.3.4 Mid - Rail Camp Photo Sheet

ᖃᑎᖅᓚ-ᓄᓇᓕᐅᑉᑎᑦ ᐊᖏᑎᖅᓚᒃ ᐊᓕᓐᓂᒍᐊᑦ ᐃᓕᓴᕆᔨᓚ

PHOTO 1 Aerial View Mid-Rail Camp – Camp was not occupied in 2013
ᖃᒃᖏᑕᓂᒃᓯᓪᓗᒍ ᑕᓯᔨᓗᒍ ᐊᓯᓕᖅᑐᖅ-ᓄᓇᓕᐅᑎᓯᒋᐊᖅ ᐊᖅᓯᓯᑎᖏᓚᓂᒃ ᓄᓇᖃᖅᖁᔭᒃ – ᓄᓇᖃᖅᖁᔭᒃ ᐃᓄᖃᑕᐅᔾᔨᒋᑦᑐᖅ ᑕᐃᔨᓕᒪᓂᒃ 2013-ᒥ

D.3.5 Geotechnical Drilling Program Milne Port Photo Sheet

ᔾᕆᓪᓕᓂᕐᒥ ᐱᓪᓕᐊᓕᕐᑎᐊᖅᓯᒪᔨᓕᐊᓪᓚᒃ
ᓂᐅᖅᑐᓂᖅ ᐱᓪᓕᐊᒃᓴᖅ ᐃᒃᐱᑭᑐᕐᕿᐊᕐ
ᑐᓪᒃᑕᕐᕆᖏᓂ ᐊᕐᕋᖅᔪᐊᓵ ᐃᓪᓕᓯᕆᖏᓪᓕ

PHOTO 1 Pre-drilling area at Milne Port (on ice)
ᓱᐅᓂᐊᓂ–ᓂᐅᖅᑐᖃᖅ ᓄᓇᖏᑦ ᐃᒃᐱᒋᑐᖃᐊᕐᓂ ᑐᓴᒃᑕᖃᕐᓂᑦ (ᓱᑯᒥ)

PHOTO 2 Drilling operations at Milne Port (on ice)
ᓂᐅᖅᑐᓂᖅ ᐱᓕᓚᐊᖏᓱᖅ ᐃᒃᐱᒋᑐᖃᐊᕐᓂ ᑐᓴᒃᑕᖃᖅᖏᑦᑐᓂ (ᓱᑯᒥ)

PHOTO 3 Post-drilling operations at Milne Port (on ice)
ᓂᐅᖅᑐᐊᓂᖅᑎᓪᓗᑎᑦ ᐱᓕᕆᐊᖃᕐᓂᑦ ᐃᖅᐱᑭᑐᖅᓯᐊᑦ ᑐᓴᖅᑕᖅᓱᖏᓂ (ᓯᑯᒥ)

D.3.6 Milne Inlet Tote Road Photo Sheet

ᐃᐦᐱᑭᑐᕋᐊᕐ ᑲᖏᑎᖅᓱᖏᓂᓂᓄᐅ ᐅᓯᕐᑲᐦᑕᕋᕆᓚᐦ ᐊᕐᑯᔨᑎ ᐊᓴᖏᔪᐊᐸ ᐃᓕᓯᕆᓚᖏᓪ

PHOTO 1 Aerial view of Milne Inlet-Mary River Mine Site Tote Road 2013
ᖃᒃᖏᑕᓯᒥᐸᑦ ᑕᐅᑐᓗᔪ ᐃᒃᐱᑭᑐᖅᔪᐊᑦ ᑲᖏᖅᓴᓕᐊ-ᓄᓚᑦᓂ ᐅᓴᖅᓂᐊᖅᑲᐃᒃ ᐅᓯᖃᑦᑕᖅᑲᐃᒃ ᐊᖅᑯᑎᖏᓐᓄᑦ 2013

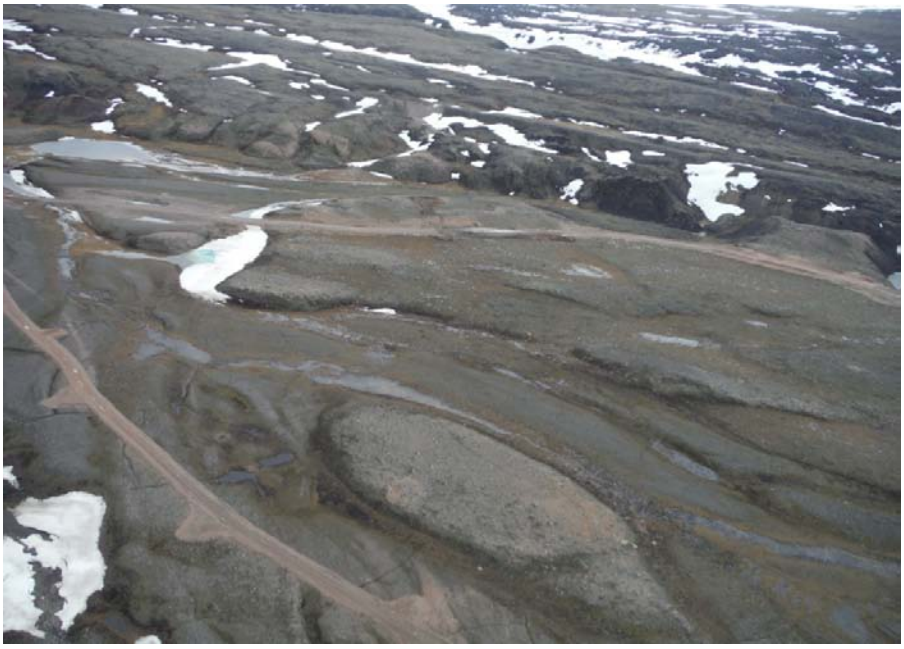


PHOTO 2 Aerial view of Milne Inlet-Mary River Mine Site Tote Road 2013
ᖃᒃᖏᑕᓯᒥᐸᑦ ᑕᐅᑐᓗᔪ ᐃᒃᐱᑭᑐᖅᔪᐊᑦ ᑲᖏᖅᓴᓕᐊ-ᓄᓚᑦᓂ ᐅᓴᖅᓂᐊᖅᑲᐃᒃ ᐅᓯᖃᑦᑕᖅᑲᐃᒃ ᐊᖅᑯᑎᖏᓐᓄᑦ 2013

PHOTO 3 Milne Inlet Tote Road July 2013
ᐃᵇᐱᑭᑐᖅᐸᐊᐹᑦ ᑲᖏᑎᖅᓪᓗᖏᓂᓄ ᐅᓯᖅᑕᖅᖢᕆᐦᑲᵇ ᐊᖅᑯᑎᖏᓐᖏᓚ ᕿᓕᐃ 2013

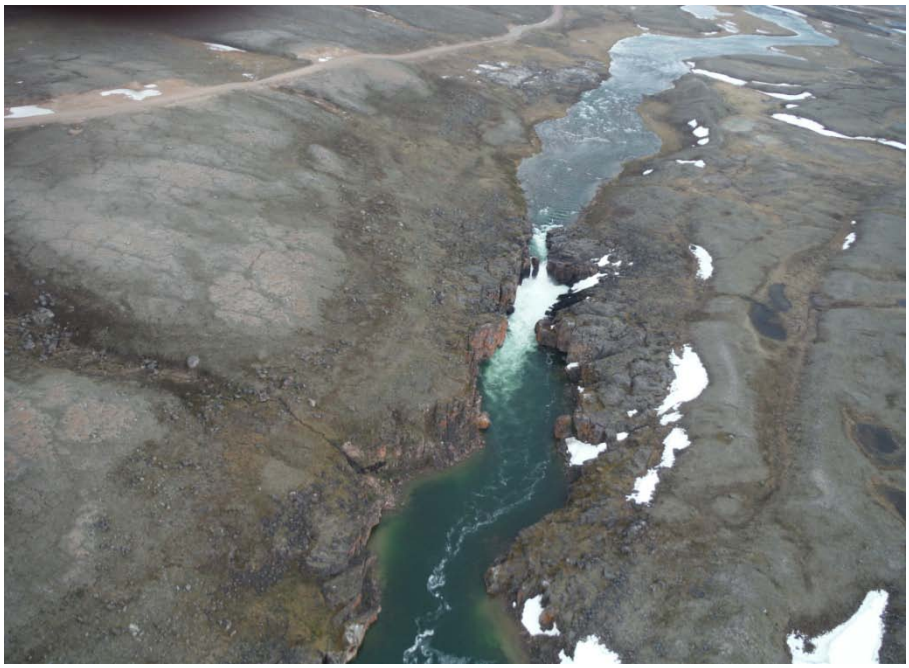


PHOTO 4 Milne Inlet Tote Road Aerial View near Km 13
ᐃᵇᐱᑭᑐᖅᐸᐊᐹᑦ ᑲᖏᑎᖅᓪᓗᖏᓂᓄ ᐅᓯᖅᑕᖅᖢᕆᐦᑲᵇ ᐊᖅᑯᖅᑯᑎ ᖃᑲᖏᑕᓯᒥᑦ ᑕᐅᑐᓪᓗᒍ
ᖃᓄᑎᔪᖏᓂᓄ ᐅᖏᓚᓯᓂᓕᵇ 13 ᑭᓴᒥᑐᑦ

D.3.7 Milne Port Bulk Fuel Transfer Photo Sheet

ᐃᖅᐱᑭᑐᖏᕆᐊᖏ ᑐᓪᓕᖅᑕᖏᕐᕆᓚᓂᓂ ᐃᓗᐃᖅᑲᑦ ᐅᖃᓕᖏᑐᖅᑎᑕᐃᓐᓇᑦ ᓄᑕᐅᕆᑦ ᐊᑦᔨᓐᓇᒍᐊᑦ ᐃᓕᓴᕐᕆᓕᖅ

PHOTO 1 Milne Port Marine Spill Emergency Response Training August 2013
ᐃᖅᐱᑭᑐᖏᐊᐠ ᑐᓪᖅᑕᖏᖕᖓᑦ ᑕᓗᐅᖏᒥ ძᕕᐸᖏᖅᓂᖅᓯᑦ
ᑐᐊᕕᖏᓐᓇᖅᓯᐸᖏᖅᑐᑐᐅᖅᓯᑦ ᑭᐅᒪᔪᑦ ᐃᓕᓴᕐᓂᖏᓐᓄᑦ ᐋᔪᙵᑎ 2013

PHOTO 2 Milne Port Marine Spill Emergency Response Training August 2013
ᐃᖅᐱᑭᑐᖏᐊᐠ ᑐᓪᖅᑕᖏᖕᖓᑦ ᑕᓗᐅᖏᒥ ძᕕᐸᖏᖅᓂᖅᓯᑦ ᑐᐊᕕᖏᓐᓇᖅᓯᐸᖏᖅᑐᑐᐅᖅᓯᑦ
ᑭᐅᒪᔪᑦ ᐃᓕᓴᕐᓂᖏᓐᓄᑦ ᐋᔪᙵᑎ 2013

PHOTO 3 Milne Port Marine Spill Emergency Response Team Training
ᐃᖅᐱᑭᑐᖅᐸᐊᑉ ᑐᓪᓯᖅᑲᓚᑦᓄᓂᓗ ᑕᓪᐅᑦᑎ ᑯᓚᐸᖅᑎᓂᖅᓯᒃᑭᑦ ᑐᐊᓚᖅᓀᖅᓯᓂᖅᑕᓚᓂᐅᑦᐅᖅᑭᑦ ᑭᐅᒪᔨᑦ ᐱᑕᓪᖅᑲᑎᑦ ᐃᑕᵒᓂᐅᖅᓂᒍᑦ

PHOTO 4 Overview of Milne Port Steel Tank Bulk Fuel Storage Facility and fuel delivery ship during fuel transfer September 2013
ᑕᑯᔪᐃᵒᓇᓪᓕᑐᒍ ᐃᖅᐱᑭᑐᖅᐸᐊᑉ ᑐᓪᓯᖅᑲᓚᑦᓄᓂᓗ ᓴᓚᕆᔪᐃᑦ ᖃᖅᑎᑕᐅᔪᖅᐸᐊᖅᑲᐅᓯᒃᓚᓂᐅ ᐅᖅᓯᖅᑲᐅᑎᐊᓕᐃᑦ ᑐᖅᑯᐃᐅᓯᒪᒃᓚᑦ ᐊᓯᒪᓗ ᐅᖅᓯᓗᖅᓴᖅ ᐅᖅᓯᓗᖅᓴᖅ ᐊᓯᐊᓂᖅᑕᐅᖅᓯᓗᑎᒃ ᐅᖅᓯᓗᖅᓴᖅ ᓂᑕᐅᑎᓵᑎᑦ ᓯᑎᐱᓇᓪᓚ 2013

PHOTO 5 Ship-to-Shore floating hose and Milne Port Marine Emergency Response Team
ᐅᒥᐊᖅᓯᐊᒥᑦ-ᓂᕆᔨᒧᑦ ᐳᑲᑕᑎᑦᑎᓴᐊᑎ ᓂᐟᓗᓕᓂᖅᒥᑦ ᐊᓚᒪᓗ ᐃᑲᐱᑭᑐᖅᓯᐊᐠ ᑐᓪᓕᖅᑲᓂᓂ ᑕᓗᐅᖅᒥ ᑐᐊᕕᖅᓯᒪᓂᖅᐸᑦ ᑭᐅᒪᔨᑦ ᐱᓕᓗᖅᑲᑎᒋᑦ

PHOTO 4 Jana Desgagne, fuel supply vessel Milne Port 2013
ϟᓇ ᑎᑦᒪᑦᓂ, ᐅᖅᓂᐊᓗᑲᑕᐅᑦ ᑎᑭᐅᑲᐃᓂᖅᓱᖅ ᐅᒥᐊᖅᓯᐊᖅ

D.3.8 Community Consultation Photo Sheet

ᓄᓇᓕᖅᓯᓂ ᐊᐱᖏᓂᖅᑕᕐᓗᓂᒃ ᐊᖁᔨᓴᐃᓐᓇᐅᑉ

ᐃᓕᓴᕆᔨᖅ

PHOTO 1 Igloolik Community Meeting
ᐃᓱᓗᓕᖅ ᓄᓇᕗᒻᒥᐅ ᑲᑎᒪᓂᖅ

PHOTO 2 Baffinland giving Laptops to recent high school graduates Pond Inlet
ᓄᓇᕗᑦᑕᕐᓂᖅᓯᐅᑦ ᑐᓂᓯᑎᕐᓗᑎᑦ ᖃᐅᔨᒪᔨᖏᑦᑕᓂᑦ ᑕᐃᔨᓯᓄᖓ ᐊᓂᓇᖏᑦᔪᓕᐅᖅᑐᖅ
ᐱᔨᑦᓕᐅᖅᑐᓄᓂ ᐃᓕᓴᐅᔪᖏᐃᓕᓐᓂᖓᓗ ᒥᖏᑎᒪᑕᓂᖓᓗᑦ

PHOTO 3 Pond Inlet Hamlet Meeting
ᒥᕐᑎᒪᒋᓕᖅᓯᒥ ᐄᐊᓗᒃᓪᓗᑯᕐ ᑲᑎᒪᑎᑦᓴᑦᑐᕐ

PHOTO 4 Signing of the Mary River Project Inuit Impact Benefits Agreement, September 6, 2013
ᐊᑎᓕᐅᕋᒃᑕᐅᑎᑦᓴᑦᑐᕐ ᓄᓵᕆᖏᓂ ᐱᓇᕆᖏᑦᑐᕐ ᐃᓄᐃᑦ ᐊᖏᑐᒃᑕᐅᓂᖏᓐᓄᑦ ᐊᖏᕐᕈᑎ, ᓯᑎᐱᓗ 6, 2013-ᒥᑦ