

## DAILY REPORT #52 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

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<b>Reviewed by:</b>		<b>Project #:</b>	1CH008.058.0320
<b>Role</b>	<b>Company</b>	<b>Personnel – Position</b>	<b>On Site</b>
Client	Hope Bay Mining Limited (HBML)	Angela Holzapfel – ESR Compliance Manager David Vokey – ESR Coordinator Don Ethelston – HSLP Advisor Dean Wold - Safety Jill Turk – ESR Coordinator Katsky Venter – ESR Manger Michelle Tanquay – ESR Site Manager Stirling Kelly – HSLP Advisor	No No Yes No No No Yes No
	JDS	Lloyd Jackson – Mechanical Superintendent Doug Fielding – Construction Manager Ishan Fechter – Construction Coordinator Jerry Graham – Construction Manager Kevin Whieldon – Project Coordinator Mark Valeriote – Construction Manager	Yes Yes No No Yes No
Engineering Design Consultants	SRK Consulting (Canada) Inc.	John Kurylo – Site Engineer Megan Miller – Site Engineer Lawrence Borowski – Site Engineer Murray McGregor – Site Engineer Ioşef Miskolczi – Site Engineer	No No Yes Yes Yes
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	Yes No Yes No
Earthworks Contractor	Nuna Logistics	Bradford Watkin – QC Manager Doug Haverland – Area Superintendent Gary Sodhi – Field Engineer Georges Cornelissen – Survey Manager Jeff Roberts - Surveyor Jim Cardinal – Foreman Jordan Gunter – Foreman Kevin Oakes – Project Engineer Kevin Kozdrowski – Foreman Kyle Kuntz – Project Engineer Margaret Caley – Surveyor Matt McKay – Civil Supervisor Mike MacMaster – Surveyor Mike Price – Field Engineer Nick Stoneberger – Superintendent Rick Peter – Foreman Ron MacMaster – Surveyor Simon Chipper – Civil Supervisor	No No No Yes No Yes Yes No No No Yes Yes Yes Yes Yes No No No
<b>External Distribution List:</b>	SRK: Maritz Rykaart, Lowell Wade, Seema Kang, Silkie Wong EBA: Robert Zschuppe Nuna: Chris Petrovic JDS: Bob Prince-Wright, Calvin Goldschmidt HBML: Dave Power, Gerry Benson		
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**WEATHER (ROBERTS BAY)**

<http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=INUNAVUT3>

Temperature/Wind Chill (°C)	6AM: -36/-40	12PM: -32C/-45C	6 PM: -33C/-45C	12 AM:-33/--
Precipitation (mm)	<b>Rain:</b> None		<b>Snow:</b> None	
Conditions	<b>Day Shift:</b> Clear, light wind and cold.		<b>Night Shift:</b> Cold. Clear sky. Calm to moderate wind.	
Daily norms (°C)	24 hour high: -30.8		24 hour low: -37.3	

**HEALTH, SAFETY AND ENVIRONMENT**

- Lawrence Borowski attended the weekly safety meeting.
- Thomas Bradshaw and Iozsef Miskolczi attended the weekly safety meeting.

**COMMENTS, CORRESPONDENCE AND ACTIVITIES****DAILY MEETING WITH NUNA AND HBML TEAM:**

- The daily meeting was attended by Newmont [Don Ethelston], JDS [Doug Fielding, Kevin Whieldon] Nuna [Nick Stoneberger] and SRK [Murray McGregor, Lawrence Borowski, Jeff Orr]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> <li>• No safety issues were reported.</li> <li>• No ESR representative.</li> </ul>
North Dam	<ul style="list-style-type: none"> <li>• SRK reported freeze-back achieved ~ 4:30 am.</li> <li>• No placement of FCM during the day shift or night shift.</li> <li>• North east corner of key trench cleaned.</li> <li>• Survey marked crest line of GCL.</li> <li>• GCL patches placed at locations of tears in the liner.</li> <li>• Started peeling back HDPE liner and 5/8 clear material at the north end.</li> <li>• Meeting between Nuna and SRK to agree on plan to move forward at the dam. Salient points were that efforts will be concentrated towards filling FCM material at the lowest section of the key trench; slopes of FCM will be shaped by hand to final grade as the work progresses; and no attempt will be made to salvage GCL beyond the crest line. HDPE liner and 5/8 clear material will be pulled back to design lines. New GCL will be placed if in-place GCL is damaged. A 1 m overlap will be maintain.</li> </ul>
Water Management Structures	<ul style="list-style-type: none"> <li>• No work on sumps.</li> <li>• Layfield continued placing HDPE at the berm. They were reassigned to place the patches at the north dam for part of the day.</li> <li>• Excavation at the fiber optic crossing undertaken.</li> </ul>
General	<ul style="list-style-type: none"> <li>• SRK's vehicle serviceable.</li> <li>• ADCO requested some additional road grading.</li> </ul>

**SURVEY:**

<b>Required</b>	<ul style="list-style-type: none"> <li>• As-built survey of Transition placed Feb 23, 2012</li> <li>• As-built survey of FCM placed Feb 24, 2012</li> </ul>
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<b>Data Received</b>	<ul style="list-style-type: none"> <li>• Diversion Berm <ul style="list-style-type: none"> <li>-KT excavation with ROQ</li> <li>-Crush to KT grade.</li> <li>-Bentonite</li> <li>-Crush under liner</li> </ul> </li> <li>• North Dam <ul style="list-style-type: none"> <li>- Frozen core, transition and ROQ placed.</li> </ul> </li> <li>• North Dam <ul style="list-style-type: none"> <li>- AutoCAD file of cross sections.</li> </ul> </li> </ul>
<b>Outstanding</b>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Upcoming</b>	<ul style="list-style-type: none"> <li>• Survey of FCM after placement (ongoing).</li> <li>• Survey of Doris North Diversion berm (ongoing).</li> </ul>

#### **NORTH DAM/FROZEN CORE PLANT PAD:**

##### **Multi-Bead Thermistors**

- All thermistor strings were downloaded during the night shift.

##### **Frozen Core Plant**

###### *Dayshift*

- Frozen core plant started up at 9:45 and immediately shut down due to a frozen waterline. Plant restarted at 10:15 am, material was ready for placement within 10 minutes.
- The burner angle was changed to reduce the temperature after start-up; average chute temperature was 32°C.

###### *Nightshift*

- No core was produced.

##### **Dam Shell**

###### *Dayshift*

- No activity.

###### *Nightshift*

- No activity.

##### **Key Trench/ Central Core**

###### *Dayshift*

- Placement started from 1 +03 upstream, and then fanned out over the entire dam to 0+73.
- Backslopes were placed and graded to the required 2.5H:1V
- In accordance with plan to bring up low area systematically, today's grade elevation was 31.35.
- Minor bleeding was observed on most of the FCM placed.
- Work on section 1+03 to 0+73 was completed by early afternoon.
- Net section where FCM was placed was from section 0+70 to 0+40. This was a test section 150 mm thick with the objective of determining length of time for freezeup on a thinner section.
- Two single bead thermistors were installed.
- After FCM core material placement was finished for the day, crew continued with removal of ROQ from the HDPE liner at the north end of the dam.
- Densities and saturation all met specifications.

###### *Nightshift*

- Removal of the 5/8 clear crush continued along the upstream side of the keytrench.
- The exposed sections of GCL were blown clean using the air compressor.
- The single bead thermistors were monitored for freeze-back. In the 150 mm thick section freeze-back

was noted around midnight. The thicker section reached zero degrees around 5 AM.

- One core sample was collected from the 150 mm thin lift. The core broke off clean at the interface between the previous lift and the test lift, indicating that bonding between the lifts is inadequate.

#### **Field Geotechnical Testing, Laboratory and Sampling**

##### **SINGLE BEAD THERMISTOR STATUS**

Installed Today			Active			Destroyed / Abandoned		
ID	Station	U/S, D/S, CL	ID	Station	U/S, D/S, CL	ID	Station	U/S, D/S, CL
SB19	0+45	D/S				SB17	0+90	CL
SB15	0+80	U/S						

- A summary of today's material testing progress is presented in the tables below.

##### **PARTICLE SIZE DISTRIBUTION SUMMARY**

Collected	Testing In Progress	Completed
HB12-CR-CORE-PSD55-QA-20120226	HB12-ND-CORE-PSD56-QA-20120226	HB12-CR-CORE-PSD54-QA-20120225
HB12-ND-CORE-PSD56-QA-20120226	HB12-CR-CORE-PSD57-QA-20120226	HB12-CR-CORE-PSD55-QA-20120226
HB12-CR-CORE-PSD57-QA-20120226		

##### **MOISTURE CONTENT SUMMARY**

Collected	Testing In Progress	Completed
HB12-FCP-CORE-MC204-QA-20120226		HB12-FCP-CORE-MC204-QA-20120226
HB12-ND-CORE-MC205-QA-20120226		HB12-ND-CORE-MC205-QA-20120226
HB12-ND-CORE-MC206-QA-20120226		HB12-ND-CORE-MC206-QA-20120226
HB12-ND-CORE-MC207-QA-20120226		HB12-ND-CORE-MC207-QA-20120226
HB12-FCP-CORE-MC208-QA-20120226		HB12-FCP-CORE-MC208-QA-20120226
HB12-ND-CORE-MC209-QA-20120226		HB12-ND-CORE-MC209-QA-20120226
HB12-FCP-CORE-MC210-QA-20120226		HB12-FCP-CORE-MC210-QA-20120226
HB12-ND-CORE-MC211-QA-20120226		HB12-ND-CORE-MC211-QA-20120226

##### **DRILLED CORE**

Collected	Testing In Progress	Completed
HB12-ND-CORE-DC56-QA-20120226		HB12-ND-CORE-DC54-QA-20120225 HB12-ND-CORE-DC55-QA-20120225

##### **DORIS NORTH DIVERSION BERM:**

- Excavators working at ~ Sta 0+300 preparing key-trench
- Layfield continued placing geotextile to Sta. 0+445.
- Survey continued to pick up as-builts for liner, crush, key-trench and bentonite fill.

##### **DORIS SUMPS:**

- No activity

##### **QUARRY #2:**

- Crusher continued re-crushing ¾ inch into new FCM; one sample was taken by the dayshift crusher

operator.

- Crusher ran all nightshift. One sample was collected.

**GENERAL:**

- Building of the snow road across Doris Lake continued using a water truck and a Snow Cat. The last section near the dam was being worked on during the night shift.
- Snow road will be available for use within the next 2 days.
- The Doris Creek bridge thermistors were downloaded. Both appear to be in good working order.

## PHOTOS:



**Photo 1:** Progress photo of North Dam from photo point 1. ~SSE view



**Photo 2:** Progress photo of North Dam from photo point 2. ~NW view



**Photo 3:** Progress photo of North Dam from photo point 3. ~NE view





**Photo 4:** Daily progress photo of Sump #1.



**Photo 5:** Daily progress photo of Sump #2.



**Photos 6:** Placing frozen core material at Station 0+100



**Photo 7:** Initial placement of core material on slopes. Station 0+100 facing south





**Photo 8:** Hand raked backslope Sta 0+73 facing north



**Photo 9:** Hand raking. Note device being used to establish angle



**Photo 10:** ROQ removal over HDPE Station 1+30 facing north



**Photo 11:** Geotextile placed to Sta 0+445 facing east,





**Photo 12:** Crush levelling course ~ Sta 0+300



**Photo 13:** CAT 345 excavator loading out 5/8 crush from above the HDPE liner.

## FIGURES:

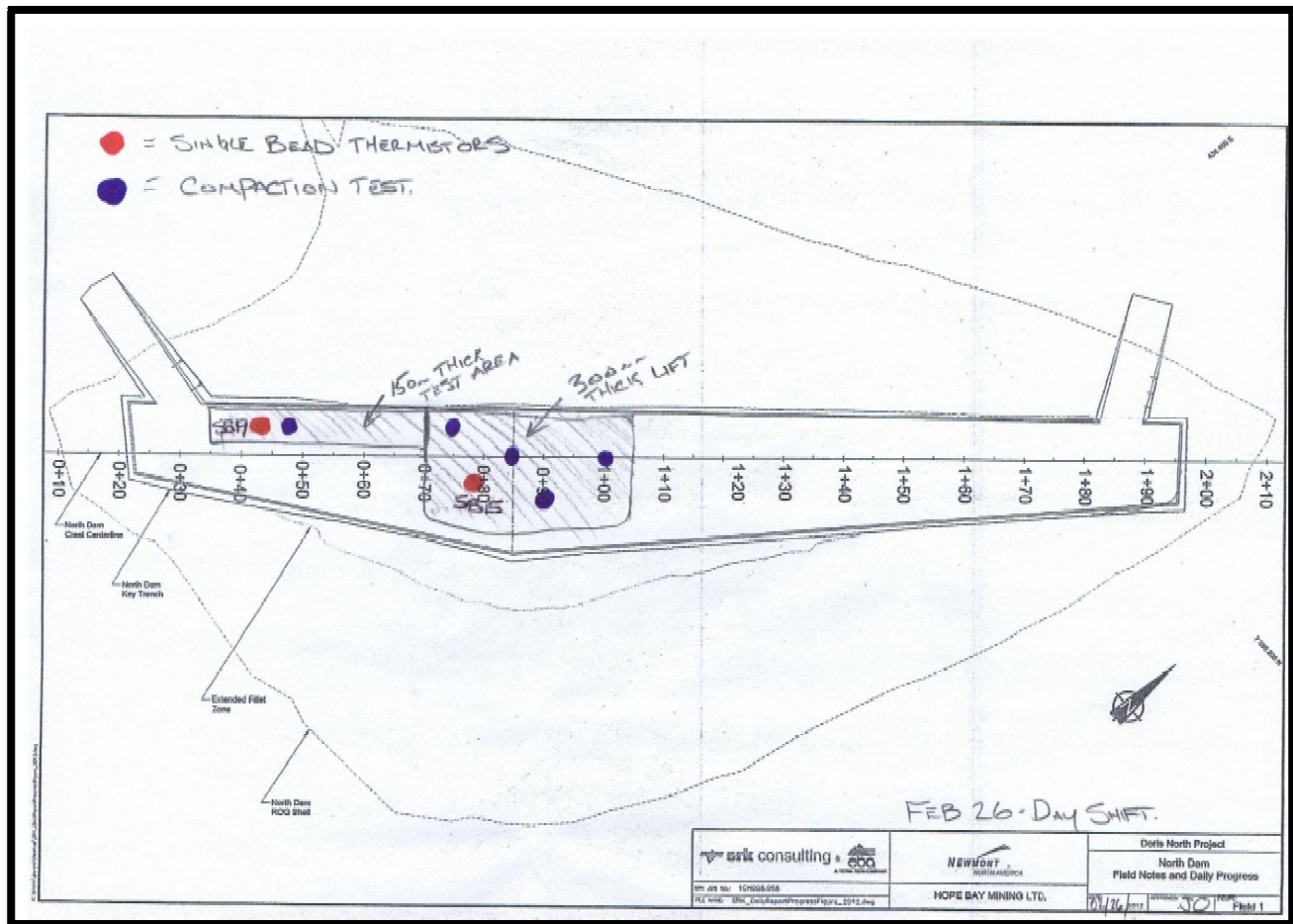


Figure 1 – North Dam Progress – Dayshift

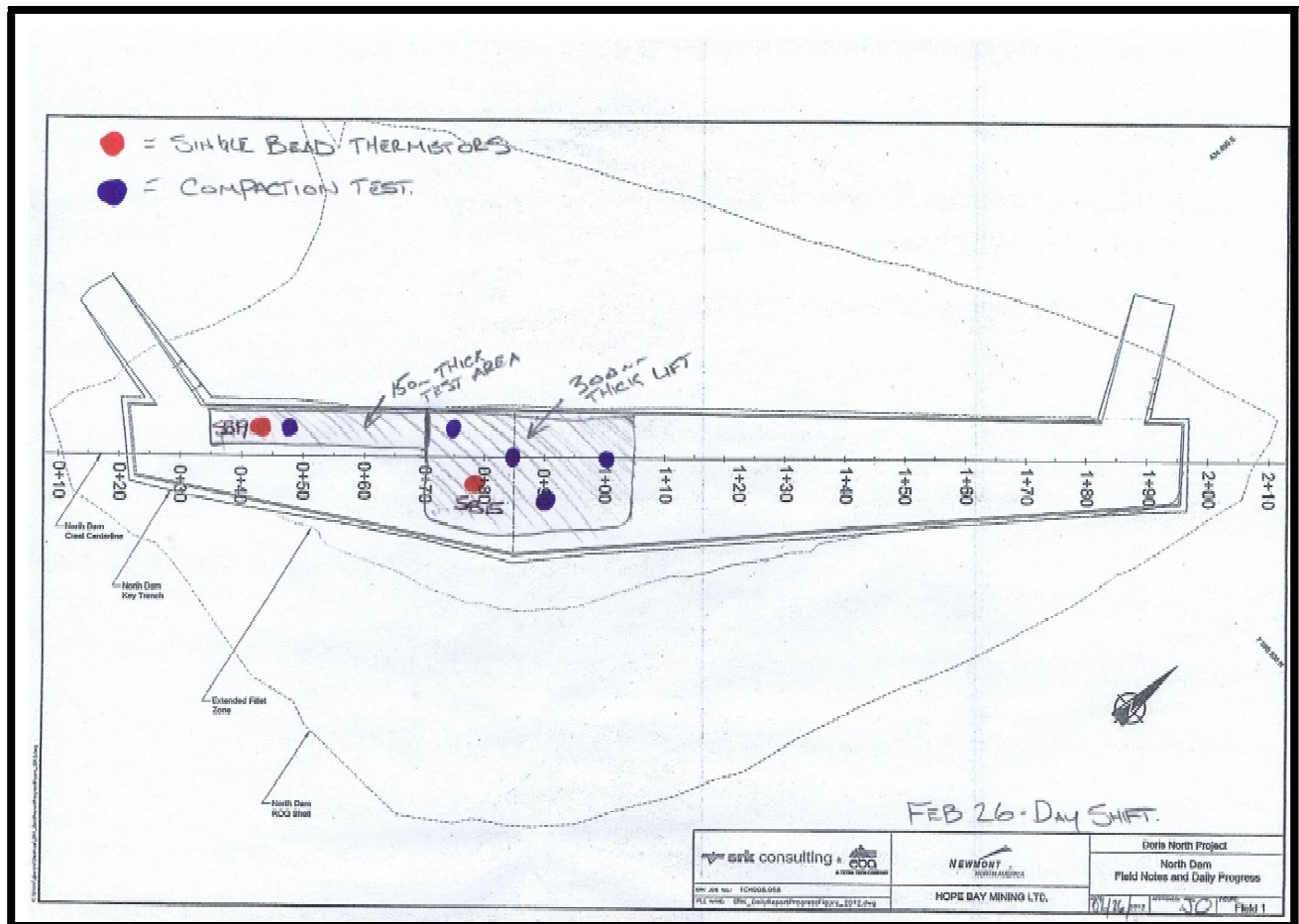


Figure 2 – North Dam Progress – Nightshift