

## DAILY REPORT #54 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

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Reviewed by:		Project #:	1CH008.058.0320
Role	Company	Personnel – Position	On Site
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 Yes Yes No No Yes 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 Yes
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 Lowell Wade	No No Yes Out 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 No Yes Yes Yes Yes Yes No No No
External Distribution List:	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: -33/-52	12PM: -34C/-48C	6 PM: -32C/-47C	12 AM: n/a
Precipitation (mm)	<b>Rain:</b> None		<b>Snow:</b> None	
Conditions	<b>Day Shift:</b> Clear, windy, wind chills to -48C		<b>Night Shift:</b> Very cold. Clear sky. Moderate wind. Windchill warning overnight for Cambridge Bay.	
Daily norms (°C)	24 hour high: -32C		24 hour low: -35C	

## HEALTH, SAFETY AND ENVIRONMENT

- Iozsef Miskolczi and Thomas Bradshaw attended the daily tool box meeting.

## COMMENTS, CORRESPONDENCE AND ACTIVITIES

### DAILY MEETING WITH NUNA AND HBML TEAM:

- The daily meeting was attended by HBML [Katsky Venter], Newmont [Don Ethelston], JDS [Doug Fielding, Kevin Whieldon, Mark Valeriote, Lloyd Jackson]; Nuna [Nick Stoneberger] and SRK [Lowell Wade, Lawrence Borowski]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> <li>• Safety: No issues.</li> <li>• ESR: One issue to follow up from last week.</li> <li>• Short discussion on cleanup around the sumps.</li> </ul>
North Dam	<ul style="list-style-type: none"> <li>• Freezeback occurred about midnight last night.</li> <li>• A full lift of core material was placed at the inflection point from Sta 0+85 to Sta 1+17.</li> <li>• Lift was placed at the extreme north end.</li> <li>• Small ditch from Sta 1+30 to the north end was filled in.</li> <li>• Short discussion on the 150 mm test strip. Plan 300 mm hot lift over the test section.</li> <li>• Plan to continue cleaning over the GCL along the upstream side of the dam.</li> </ul>
Water Management Structures	<ul style="list-style-type: none"> <li>• Plan to install sumps today.</li> <li>• Layfield plan non destructive and destructive testing today.</li> <li>• SRK to inspect recent trench excavations this morning.</li> </ul>
General	<ul style="list-style-type: none"> <li>• Layfield will be leaving on Thursday for four days.</li> <li>• Drill working at Quarry 2.</li> </ul>

### SURVEY:

Required	•
Data Received	<ul style="list-style-type: none"> <li>• As- built of liner patches at the north dam.</li> <li>• Sump 1 as-built of excavation.</li> <li>• QC cross sections of work in progress at the north dam</li> <li>• Frozen core volumes.</li> </ul>
Outstanding	•
Upcoming	<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**

- No activity

**Frozen Core Plant***Dayshift*

- No activity

*Nightshift*

- The plant was started up around 10:45 PM and produced 3 loads of core mix, after which it was stopped. The second and third loads were kept in the plant until the operator placing the core at the dam requested the material.
- Three more loads of core mix were produced around 12:30 AM, to complete the placement along the upstream strip.

**Dam Shell***Dayshift*

- No activity.

*Nightshift*

- No activity.

**Key Trench/ Central Core***Dayshift*

- Removal of the 5/8 clear crush continued along the upstream side of the key trench.
- HDPE liner was rolled back to expose the GCL. Exposed areas of GCL were blown clear with the air compressor.
- Single bead thermistor was monitored for freeze back all day. Freezeback did not occur during the day shift.

*Nightshift*

- Core material was placed in the wide square in the extreme north end of the keytrench (from Sta. 1+85 to Sta. 1+97) and the upstream strip (from Sta 1+30 to Sta 1+85) respectively.
- Freeze-back could not be confirmed by the single-bead thermistor, being broken. The multi-bead thermistor was read instead, the last bead of which was buried in the layer to be confirmed frozen. The temperature indicated by the last bead was -2.6 °C.
- Material quality was good. Temperature of material was increased to 43 °C to extend the time to freeze-up and allow proper finishing of the slopes by manual labor.
- Rakes and shovels were used to finish the 2.5H:1V slope along the upstream edge of the placed core material.
- All compaction tests were acceptable.
- Compaction in the north square was done with the 10 T compactor , while the small gasoline powered compactor was used along the crest of the square and along the strip.
- Single bead thermistor 20 was monitored for freeze-back in the inflection point area. At the end of the night shift freeze-back has not yet occurred.
- One single bead thermistor (SB 26) was installed at Sta. 1+87.

**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
SB26	1+86	CL	SB19	0+45	D/S	SB28	1+74	U/S
			SB20	0+91	CL			

- 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-PSD58-QA-20120228 HB12-FCP-CORE-PSD59-QA-20120228	HB12-FCP-CORE-PSD59-QA-20120228	HB12-CR-CORE-PSD58-QA-20120228

**MOISTURE CONTENT SUMMARY**

Collected	Testing In Progress	Completed
HB12-FCP-CORE-MC221-QA-20120228 HB12-ND-CORE-MC222-QA-20120228 HB12-FCP-CORE-MC223-QA-20120228 HB12-ND-CORE-MC224-QA-20120228	HB12-ND-CORE-MC222-QA-20120228 HB12-FCP-CORE-MC223-QA-20120228 HB12-ND-CORE-MC224-QA-20120228	HB12-FCP-CORE-MC221-QA-20120228

**DRILLED CORE**

Collected	Testing In Progress	Completed
HB12-ND-CORE-DC58-QA-20120228	None	HB12-ND-CORE-DC57-QA-20120227 HB12-ND-CORE-DC58-QA-20120228

**GENERAL:**

- Dayshift conducted one standard proctor analysis SP5, on material collected from the Clemro crusher during the previous shift.

**DORIS NORTH DIVERSION BERM:**

- Trench excavations inspected. One spot with key trench .1 high and one spot .25 high need to be corrected.
- Bank needs to be cut back where excavation at top of bank is anywhere from .3 to 1m from the design line.
- Layfield carried out destructive and non destructive testing on portion from station 0+400 east.
- Bentonite placed to Station 0+300.
- Geotextile underliner placed to Station 0+340.
- Crush bedding material placed to Station 0+360.

**DORIS SUMPS:**

- Snow removed from Sump 2.
- Excavation surveyed. Paint sprayed on walls to mark height of 5/8" clear material.

**QUARRY #2:**

- Crusher continued re-crushing ¾ inch into new FCM.

- Two drills working.
- Crusher ran all nightshift. One sample was collected.

**GENERAL:**

- The snow road over Doris Lake was completed on night shift.
- The power generator used for drilling was retrieved from the Nuna mechanical shop after repairs.

## PHOTOS:



**Photo 1:** Doris camp from 2010 viewpoint



**Photo 2:** North dam from photo point 3, facing north east.





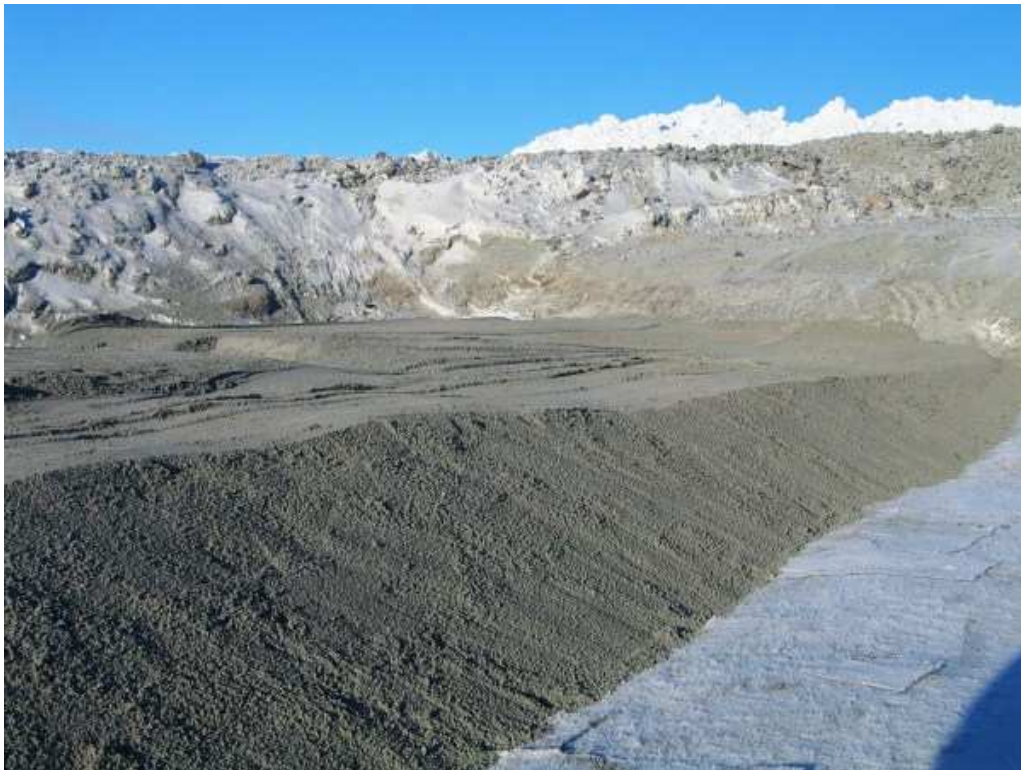
**Photo 3:** Sump 1.



**Photo 4:** Sump 2 with snow removed. Surveyor marking 5/8 clear levels.



**Photo 5:** Ditch sta 1+30 (facing north) filled by night shift.



**Photo 6:** North end with sides sloped to design grade.





**Photo 7:** Excavator cleaning at extended fillet area.



**Photo 8:** Cleaning in the extended fillet area with air compressor.



**Photo 9:** Two drills working at quarry 2.



**Photo 10:** Bentonite placed to Sta 0+300 at diversion berm

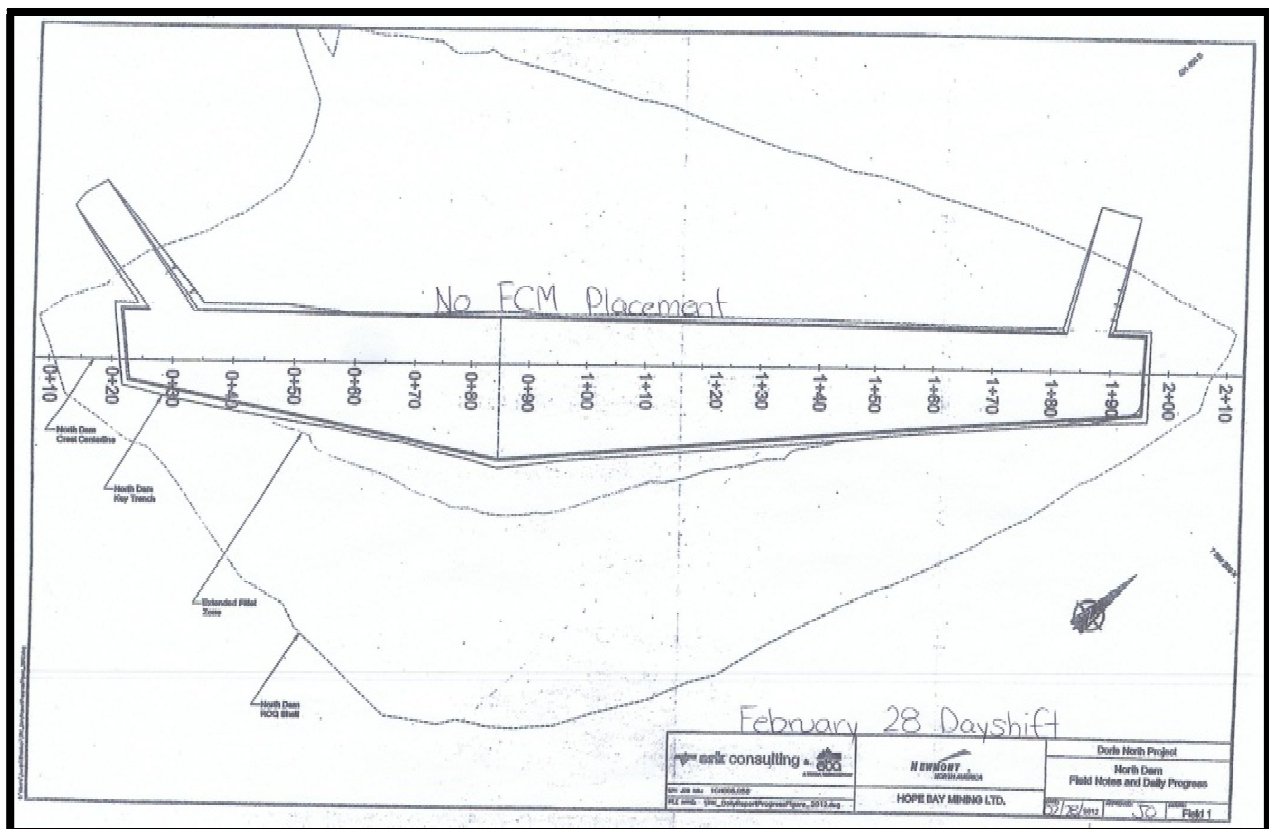




**Photo 11:** Underliner placed to Sta 0+340.



**Photo 12:** View of the lift of material placed along the upstream edge of the core. The compactor is parked at the edge of material placed in the north square. Photo taken from Sta. 1+20 looking north.

**FIGURES:****Figure 1 – North Dam Progress – Dayshift**



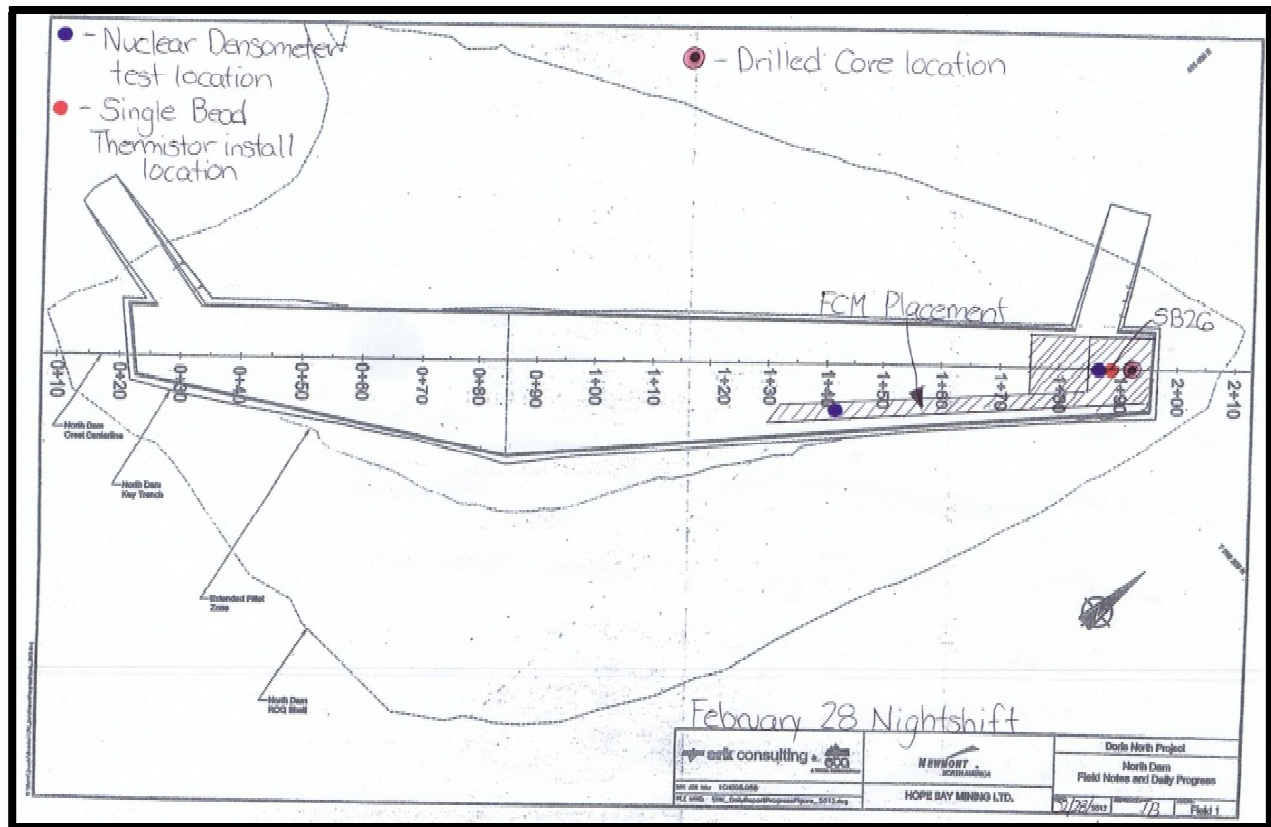


Figure 2 – North Dam Progress – Nightshift