

## DAILY REPORT #86 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

Prepared by:	Iozsef Miskolczi Megan Miller	Date:	2012.03.31
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 No No No Yes Yes No 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 Calvin Goldschmidt – Construction Coordinator	No No No Yes No No Yes
Engineering Design Consultants	SRK Consulting (Canada) Inc.	John Kurylo – Site Engineer Megan Miller – Site Engineer Lawrence Borowski – Site Engineer Murray McGregor – Site Engineer Iozsef Miskolczi – Site Engineer Lowell Wade – Senior Engineer	No Yes No No Yes No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	No No No Yes
Earthworks Contractor	Nuna Logistics	Benny Vostermans – Foreman (Day Shift) Doug Haverland – Area Superintendent Gary Sodhi – Field Engineer Georges Cornelissen – Survey Manager Jeff Roberts - Surveyor Jim Cardinal – Foreman (Day Shift) Jordan Gunter – Foreman Kevin Kozdrowski – Foreman Kyle Kuntz – Project Engineer Margaret Caley – Surveyor Matt McKay – Civil Supervisor Mike MacMaster – Surveyor Mike Price – Field Engineer Rick Peter – Foreman (Night Shift) Ron MacMaster – Surveyor Simon Chipper – Civil Supervisor	Yes No Yes Yes No Yes No No No No No Yes No Yes No No
External Distribution List:	SRK: Maritz Rykaart, Lowell Wade, Seema Kang, Silkie Wong EBA: Robert Zschuppe Nuna: Chris Petrovic HBML: Dave Power		
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**WEATHER (ROBERTS BAY)**

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

Temperature/Wind Chill (°C)	6AM: -9/-16	12PM: -8/-16	6 PM: -6/-12	12 AM: -7/-15
Precipitation (mm)	<b>Rain:</b> None		<b>Snow:</b> Traces	
Conditions	<b>Day Shift:</b> Overcast, cold wind.		<b>Night Shift:</b> Overcast in the evening, clear sky by morning. Light to moderate wind.	
Daily norms (°C)	24 hour high: -6.1		24 hour low: -9.6	

**HEALTH, SAFETY AND ENVIRONMENT**

- Megan Miller attended the dayshift Nuna toolbox meeting.
- A red fox was spotted hunting in the diversion berm area above the portal.
- A raptor bird (could not determine species) was seen east of the FCP feeding on a ptarmigan.

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

- The daily meeting was attended by Nuna [Lucas Evans, Mike Price], Newmont Safety [Stirling Kelly] ESR [Katsky Venter], JDS [Jerry Graham, Calvin Goldschmidt], SRK [Megan Miller]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> <li>• No safety or environmental issues reported.</li> <li>• ESR and Nuna discussed hauling of overburden and crush material to Boston.</li> </ul>
North Dam	<ul style="list-style-type: none"> <li>• Nuna plans on placing the last of the overliner material today.</li> <li>• SRK asked what the current thinking is with respect to the turnaround. The turnaround will not be built.</li> </ul>
Water Management Structures	<ul style="list-style-type: none"> <li>• The diversion berm repair is planned to continue today and will be finished by the end of the day tomorrow.</li> <li>• Nuna plans on moving the area of blown in snow tomorrow.</li> <li>• Layfield will be leaving site tomorrow.</li> <li>• JDS reminded Nuna that the sumps need to be backfilled.</li> <li>• Sump lids are ready to be insulated; they are waiting for Tli Cho to be free to do this.</li> </ul>
General	<ul style="list-style-type: none"> <li>• Nuna said that 10,000 m<sup>3</sup> of the ROQ material produced from the next blast is excess that can be used in remediation work etc.</li> <li>• The next blast is planned for Sunday and KEL will be leaving site on Monday.</li> <li>• Drilling holes for gate posts to restrict access to the burn pan was discussed.</li> <li>• Water management plans on fusing pipes near the bridge.</li> <li>• Nuna is in the process of pricing the demobilization costs for the crusher.</li> </ul>

**SURVEY:**

<b>Required</b>	<ul style="list-style-type: none"> <li>• GCL panels placed March 30, 2012 and March 31, 2012</li> <li>• Overliner material placed March 30, 2012 and March 31, 2012</li> </ul>
<b>Data Received</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Outstanding</b>	<ul style="list-style-type: none"> <li>• </li> </ul>
<b>Upcoming</b>	<ul style="list-style-type: none"> <li>• Diversion Berm material as placed</li> <li>• Dam material (ongoing)</li> </ul>

**NORTH DAM/FROZEN CORE PLANT PAD:****Multi-bead Thermistors**

- No Multi-bead thermistor readings were collected.

**Frozen Core Plant***Dayshift*

- Twelve loads of GCL overliner material were produced.
- A few additional loads of ¾" crush material were hauled to the frozen core plant stockpile and mixed with the remaining 5 mm minus frozen core material to make additional overliner material.
- Plant settings were the same as those used for nightshift March 30, 2012.

*Nightshift*

- No activity

**Dam Shell***Dayshift*

- ROQ material was placed on the upstream side of the core material in a third lift near station 0+90.
- Transition material was placed along the crest of the overliner material placed March 30, 2012 nightshift.
  - The lift of transition material along the crest was looking thick and the foreman was reminded that the maximum lift thickness for transition material is 0.5 m.

*Nightshift*

- Placement of the final lift of ROQ continued from Station 1+20 to about Station 1+15. No compaction was observed.
- Placement of the first lift of ROQ was started around Sta. 1+00, aiming to backfill the trench at the toe of the frozen core.
- Transition material was placed starting from the previously placed transition at Station 0+85. The material was placed in three lifts, each compacted, up to the elevation of 32.5 (approximately mid-slope). This was done to allow for proper compaction by vibrating up the slope and backing down on static mode, without the compactor's wheels spinning out.
  - The thick lift of ROQ to be placed at the toe of the core will create a new work surface at higher elevation, which will allow compaction further up the slope. An additional benefit of the ROQ being placed to fill in the existing trench is elimination of the snow trap in case the winds become stronger.
- The placed and compacted transition material was inspected with grade check support from the surveyor and was approved to be covered with ROQ from Station 0+60 to Station 0+85, up to elevation 32.5.
- The thick lift of transition material on the crown of the frozen core was cut down by the excavator to less than 500 mm.

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

- Three additional panels of GCL were placed from station 0+60 to 0+45.
  - The third panel of GCL which contained the most overlap with the other panels was jointed on the slope. The joint occurred approximately 1 m from the crest (above the full supply level). An ~ 2 m overlap was used at this joint; however the bottom 1 m of this overlap (furthest from the joint) was of ripped/damaged liner from the outside of the roll.
  - There were two holes in the first panel of liner installed; these holes are located near the bottom of the panel. Patches were applied over both holes.
- GCL overliner material was placed over the GCL. This material was placed with CAT 330 excavator and compacted with the 10T roller.
  - During compaction of the slope some of the overliner material was pulled down the slope by the packer drum rounding the crest. The crest was built up with the excavator and the ~0.1 m to

0.2 m thick section of additional material was packed with the back of the excavator bucket.

*Nightshift*

- No activity.

**Field Geotechnical Testing, Laboratory and Sampling**

- No single bead thermistors were monitored or installed.
- A summary of today's material testing progress is presented in the tables below.

**MOISTURE CONTENT SUMMARY**

Collected	Testing In Progress	Completed
HB12-FCP-COVER-MC415-QA-20120331	HB12-FCP-COVER-MC415-QA-20120331	HB12-FCP-COVER-MC409-QA-20120330
HB12-FCP-COVER-MC416-QA-20120331	HB12-FCP-COVER-MC416-QA-20120331	HB12-FCP-COVER-MC410-QA-20120330
HB12-FCP-COVER-MC417-QA-20120331	HB12-FCP-COVER-MC417-QA-20120331	HB12-FCP-COVER-MC411-QA-20120330
HB12-ND-COVER-MC418-QA-20120331	HB12-ND-COVER-MC418-QA-20120331	HB12-ND-COVER-MC412-QA-20120330
HB12-ND-COVER-MC419-QA-20120331	HB12-ND-COVER-MC419-QA-20120331	HB12-ND-COVER-MC413-QA-20120330
HB12-ND-COVER-MC420-QA-20120331	HB12-ND-COVER-MC420-QA-20120331	HB12-ND-COVER-MC414-QA-20120330

**COMPACTION TESTING SUMMARY**

Number of Tests	Material	Tested By	Shift	Notes
3	GCL cover	EP	Day	All passed.

**DORIS NORTH DIVERSION BERM:**

- Work continued on repairing the corner caught by the wind the night of March 30, 2012.
- Layfield decided to cut out the HDPE liner that slid down the slope and replace it with new panels. At the end of the dayshift all the new panels of HDPE were installed, and some patches were being placed.
- The second lift of ROQ was placed in the area behind the tank farm; this material was placed with the CAT 345 excavator.

**QUARRY #2:**

- Trucks were loaded from the floor of the quarry.

**GENERAL:**

- Placement of the last of the GCL liner and the overliner core material is marking the completion of the works on the frozen core of the dam.
- Ernest Palczewski is preparing the EBA belongings for shipping off-site, and will be leaving site on Monday.
- The truck assigned to SRK was down for the day due to a broken power steering pump or something to do with the power steering pump. Dayshift personnel managed to get to the dam and back by catching rides with Nuna survey and foremen. The truck was up and running for nightshift.
- Some snow removal was performed at the intersection of the Float Plane Dock Road and the Secondary Road in preparation for water management piping installation.

**PHOTOS:**

**Photo 1:** Progress photo of North Dam from photo point 1. Looking south west.



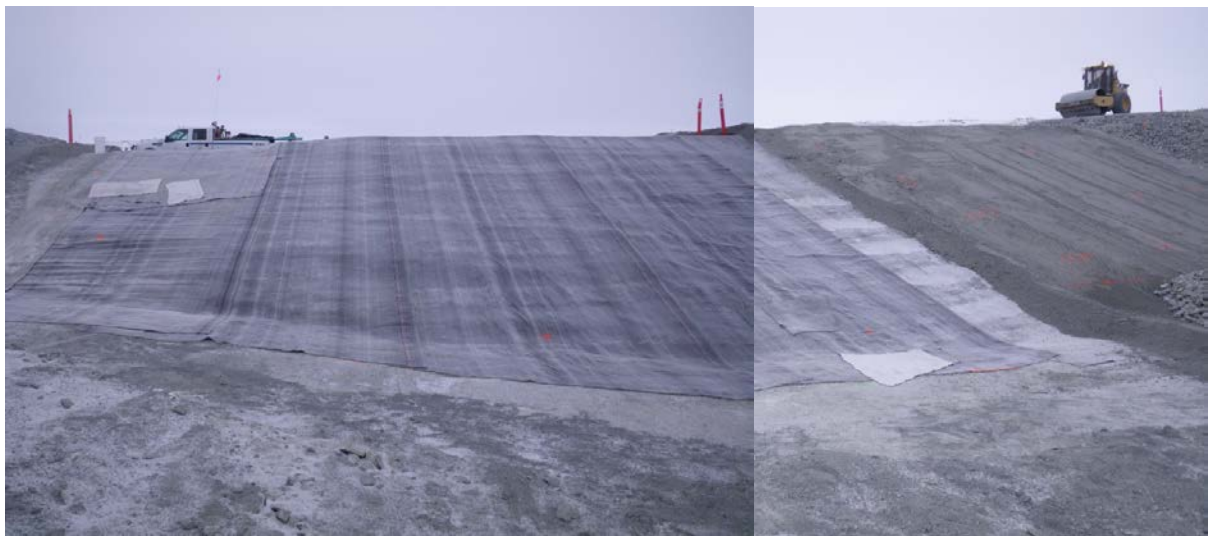
**Photo 2:** Progress photo of North Dam from photo point 2. Looking north west.



**Photo 3:** Progress photo of North Dam from photo point 3. Looking north east along dam alignment.



**Photo 4:** Diversion Berm – View of replaced HDPE liner at approximately station 050 looking west towards the culverts through the Primary Road.



**Photo 5:** GCL placed on slope of the remaining exposed core material. Photo looking north west.





**Photo 6:** North Dam – Excavator placing overliner material on slope.



**Photo 7:** North Dam – Progress photo of transition material placement. The three consecutive lifts are clearly visible. Photo looking north-east from Sta. 0+50.



**Photo 9:** North Dam – compacting the second lift of transition material. Photo looking north-west from Sta. 0+60.



**Photo 10:** North Dam – finished transition material blanket up to elevation 32.5. Note the windrows perpendicular to the slope, indicating that further compaction is required. Photo looking west from Sta. 0+85.





**Photo 11:** North Dam – progress photo of the final lift of ROQ. Photo looking north-west from Sta. 1+00.



**Photo 12:** North Dam – completed transition on the crest of the dam. Photo looking north from Sta. 0+20.



**Photo 13:** North Dam – progress photo of the first lift of ROQ at the toe of the core. The stake in the foreground is marking the extent of the area approved for covering with ROQ. Photo looking north-east from Sta. 0+55.



## FIGURES:

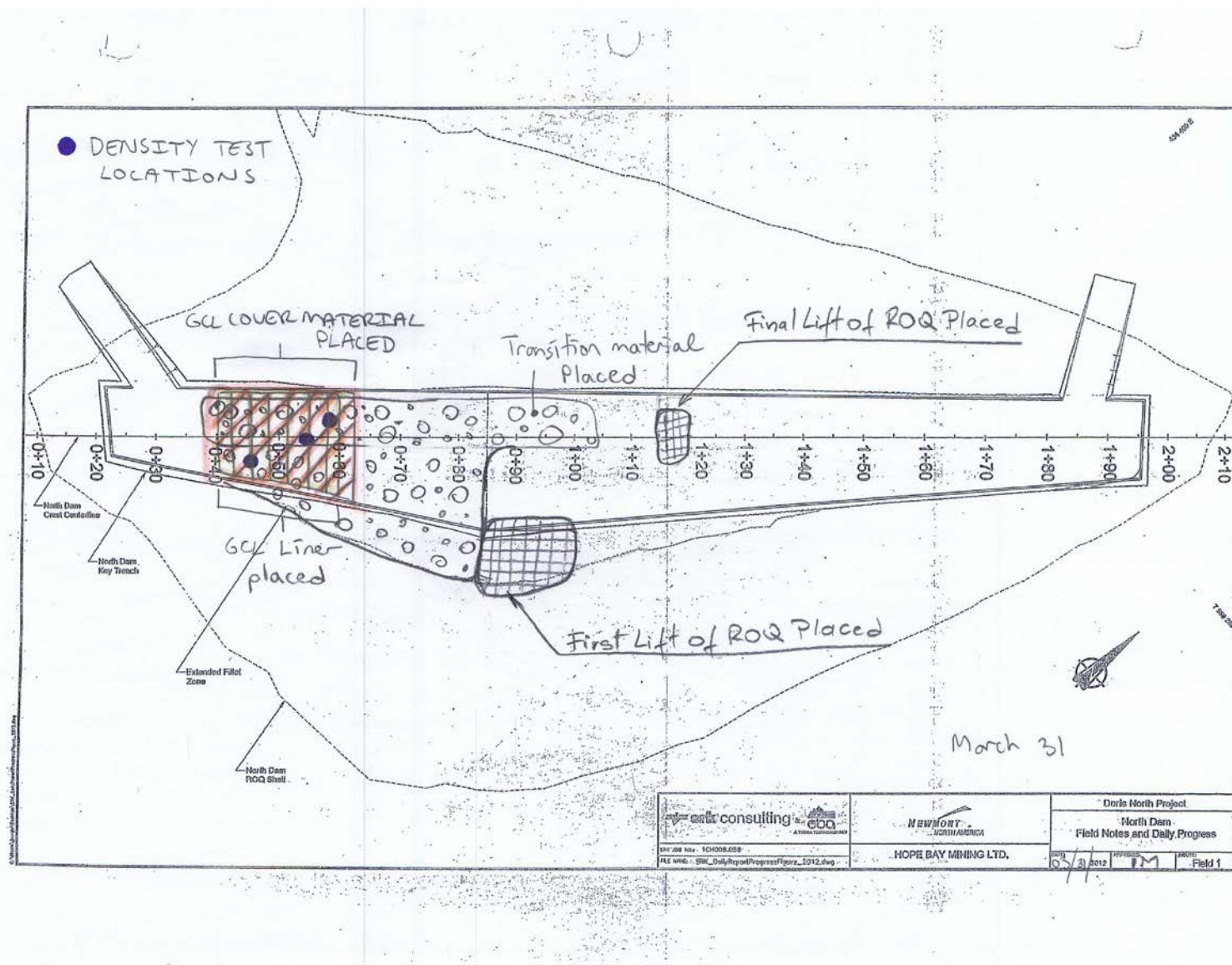


Figure 1: North Dam Progress Figure