

DAILY REPORT #81 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

Prepared by:	Iozsef Miskolczi Megan Miller	Date:	2012.03.26
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 Yes 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 Yes No No No Out 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	Out Yes No No In No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	No No Yes Yes
Earthworks Contractor	Nuna Logistics	Benny Vostermaans – Foreman (Night shift) Doug Haverland – Area Superintendent Gary Sodhi – Field Engineer Georges Cornelissen – Survey Manager Jeff Roberts - Surveyor Jim Cardinal – Foreman Jordan Gunter – Foreman (Dayshift) 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	Yes No No Yes No Yes Yes Gone No No Yes No Yes Yes Gone No No Yes
External Distribution List:	SRK: Maritz Rykaart (On Site), 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:-30/-30	12PM: -26/-26	6 PM: -25/-31	12 AM: -29/-29
Precipitation (mm)	Rain: None		Snow: Trace	
Conditions	Day Shift: Sunny light wind.		Night Shift: Clear sky, light to moderate wind.	
Daily norms (°C)	24 hour high: -23.2		24 hour low: -30.7	

HEALTH, SAFETY AND ENVIRONMENT

- Megan Miller and Ernest Palczewski attended the dayshift Nuna toolbox meeting.
- Thomas Bradshaw attended the nightly toolbox meeting.

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

- The daily meeting was attended by Nuna [Nick Stoneberger, Kevin Oakes, Trevor Sorken, Lucas Evans], Newmont Safety [Don Ethelston], ESR [Katsky Venter], JDS [Mark Valeriote, Doug Fielding, Calvin Goldschmidt], SRK [John Kurylo, Megan Miller]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> • No safety issues to report. • Nuna will be updating the safety plan for the core box move. • ESR has no incidents to report. • ESR did an inspection of equipment yesterday and noticed some cracked hoses and areas with excess grease.
North Dam	<ul style="list-style-type: none"> • Lots of holes were noticed in the lower GCL exposed yesterday. A few spots will require heating to pull back FCM as they are right on the edge of the GCL. • ROQ, transition and overliner material were placed on nightshift yesterday. • Transition material was placed on dayshift yesterday.
Water Management Structures	<ul style="list-style-type: none"> • SRK reported that the work at the berm yesterday looked good, and they are getting close to the road. • Nuna plans on putting off the road excavation for culvert installation one more day to allow the water pipes more time to thaw.
General	<ul style="list-style-type: none"> • Today was Kevin and Nick's last day on site. Everyone wished them well on their future endeavours. • JDS asked about the status of the EOR signoffs for the ponds and tank farm. SRK said that the pond as-built was submitted but they were not sure about the signoffs. • The core box move was discussed.

SURVEY:

Required	<ul style="list-style-type: none"> • Overliner Transition Material to station 1+05 • Recent multi-bead cable string pickups and crush cover over cables.
Data Received	<ul style="list-style-type: none"> • Cross-sections of Transition placed from 1+25 to 1+05 • Updated cross-sections of work in progress (frozen core) • Survey data of frozen core placed on Mar. 23 • Survey data of overliner core placed on Mar. 25
Outstanding	<ul style="list-style-type: none"> • To date as-builts of Doris Diversion Berm (ROQ, underliner crush, liner, overliner crush)

Upcoming

- Diversion Berm material as placed
- Dam material (ongoing)

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

- Readings were taken of the upstream multi-bead thermistors and the thermistors at station 0+40.
- The connector of thermistor string ND-HTS-085-33.5 was opened and examined to determine if it is the reason that the thermistor is not reading. The grey wire, 'H', was broken, which would account for the eighth bead not working when the thermistor was installed; however no other damage to the wires was apparent. The resistance of individual beads were attempted to be tested with the multi-meter however no readings were obtained.
- The connector of thermistor ND-HTS-060-28.8 was checked. All wires were found to be well connected and no physical damage was noted.

Frozen Core Plant*Dayshift*

- No activity.
- No operator available.
- Transition material from the stockpile was loaded for placement at the dam.

Nightshift

- The FCP was started up around 2AM, and produced FCM for about one hour.
 - Water content was set at 43 to start with, and immediately increased to 45
 - FCM temperature off the chute was 30°C
 - About ½ load was sent to reject at the beginning of production and a full load was rejected at the shut-down.
 - Four loads of FCM were produced, but only three were needed at the dam.

Dam Shell*Dayshift*

- Transition material was placed over the GCL overliner material working south west.
 - At the end of shift the second lift of this material was placed to 1+05 and the first lift of transition material extended to 0+95.
 - The area north of station 1+05 was walked with survey to check grades. The material in this area was to grade. A few low areas, such as the ramp being used by the trucks for access were mentioned to the foreman.
 - The packer ran over all of the placed material; however the slopes still required more packing at the end of the dayshift.
- ROQ material was placed in one ~1.85 m lift along the upstream side of the core material from 1+85 to 1+45, and a second lift of ROQ material was placed 1+90 to 1+75.
 - The ROQ material was very fine and of good quality.
- The CAT 330 excavator was used place the transition material along the slope and the CAT D8 excavator was used to place the transition material along the toe of the core slope and to place ROQ.

Nightshift

- First lift of transition material from Sta. 1+05 to Sta. 1+25 and the second lift from Sta. 1+20 to Sta. 1+45 were compacted.
 - The surface looked loose in some spots, even after several passes with the compactor, because the wheels of the compactor would spin out as it was powering up the slope. A new technique was tried, whereas only the bottom half of the slope was compacted, the part that was to be covered by the first lift of ROQ. The top part of the transition on the slope will be compacted once the ROQ is in place and access onto the slope becomes easier.
- A second lift of transition was placed from Sta. 1+20 to 1+05, but was not compacted.
- The first lift of ROQ was placed from Sta. 1+20 to 1+40. No compaction of the ROQ was observed.

Key Trench/ Central Core

Dayshift

- The small wedge of material placed March 23, 2012 nightshift was not frozen back by the end of dayshift. However, a drilled core samples was collected from a thinner section of this lift when the thermistor bead was reading -1.3°C.
- Labourers continued to clean and patch the lower GCL south of 0+70. Heating and hoarding was used to thaw an area where GCL material was torn right at the bottom of the core material. Large, GCL roll width, patches were placed along the areas where multiples tears occurred.

Nightshift

- Freeze-back of the lift placed on March 23 was reached around 10 PM.
- The area of placement was cleaned of loose debris and smoothed with the cutting edge of the excavator bucket in preparation for placement.
- The remaining volume of FCM in the underbuilt sliver was placed **to complete the frozen core.**
 - The thickness of the FCM was highly variable, requiring two lifts in the wider portion, from Sta. 0+65 to Sta. 0+70
 - The moisture content of the FCM was kept intentionally lower than usual, with the aim of increasing compactability. The target moisture content was between 8.5% and 9%, which is the optimum moisture content based on the Proctor testing.
 - The nuclear densitometer showed good compaction (above 95% in all cases) and moisture contents between 10.7 and 11.1. Further lab testing is required to determine the actual moisture content.
 - The crest of the placed FCM was largely overbuilt to allow access for the 10T compactor, and was subsequently cut back to grade.
 - The final slope was packed using the bucket of the excavator.
 - A sheen of water was noted to develop on the surface of the FCM following foot traffic about ½ hour after placement was completed. No bleed water or pooling was noted.
 - Three single-bead thermistors were installed, one vertical in the relatively shallow sloped area near Sta. 0+70, the second one normal to the slope around Sta. 0+65 about 60 cm deep, and a third one on near the crest around Sta. 0+60, approx. 50 cm deep.

Field Geotechnical Testing, Laboratory and Sampling

SINGLE BEAD THERMISTOR STATUS

Installed Today			Active			Destroyed / Abandoned		
ID	Station	US/DS/Center	ID	Station	US/DS/Center	ID	Station	US/DS/Center
SB9	0+60	CL				SB11	0+54	CL
SB20	0+65	CL						
SB6	0+70	CL						

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

PARTICLE SIZE DISTRIBUTION SUMMARY

Collected	Testing In Progress	Completed
None	None	None

MOISTURE CONTENT SUMMARY

Collected	Testing In Progress	Completed
HB12-FCP-CORE-MC401-20120326	HB12-FCP-CORE-MC401-20120326	
HB12-FCP-CORE-MC402-20120326	HB12-FCP-CORE-MC402-20120326	
HB12-ND-CORE-MC403-20120326	HB12-ND-CORE-MC403-20120326	
HB12-ND-CORE-MC404-20120326	HB12-ND-CORE-MC404-20120326	

DRILLED CORE

Collected	Testing In Progress	Completed
HB12-ND-CORE-DC88-QA-20120326		HB12-ND-CORE-DC88-QA-20120326

COMPACTION TESTING SUMMARY

Number of Tests	Material	Tested By	Shift	Notes
0	N/A	EP	Day	No FCM Placed
2	FCM	TB	Night	Tests Acceptable

- Compaction values over 90% were achieved.

DORIS NORTH DIVERSION BERM:

- Upper geotextile, bentonite 'plug' and overliner crush were placed from station 160 to station 100.
 - After the bentonite and overliner crush were placed the very end of the HDPE liner, ~5 m, was noticed to be bent such that the HDPE does not run along the bentonite at the bottom. This was mentioned to the foreman. The foreman plans on fixing this area tomorrow morning.
- Underliner crush and geotextile placed to station 060.
- The bottom bentonite and bottom crush (in the overblasted bottom) were placed from 060 to 020. The slopes of the ROQ in this area were also smoothed.

QUARRY #2:

- One drill continues to drill on both day and night shifts.
ROQ material for placement at the North Dam was hauled from the middle bench of the Quarry

GENERAL:

- Crew change for SRK. John Kurylo left site and was replaced by Iozsef Miskolczi
- Maritz Rykaart arrived to site.

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 the dam.



Photo 4: large patches placed over the GCL liner near station 0+75.



Photo 5: Photo looing north east at the transition and ROQ placement on the North Dam.



Photo 6: Heating and hoarding on the lower GCL.

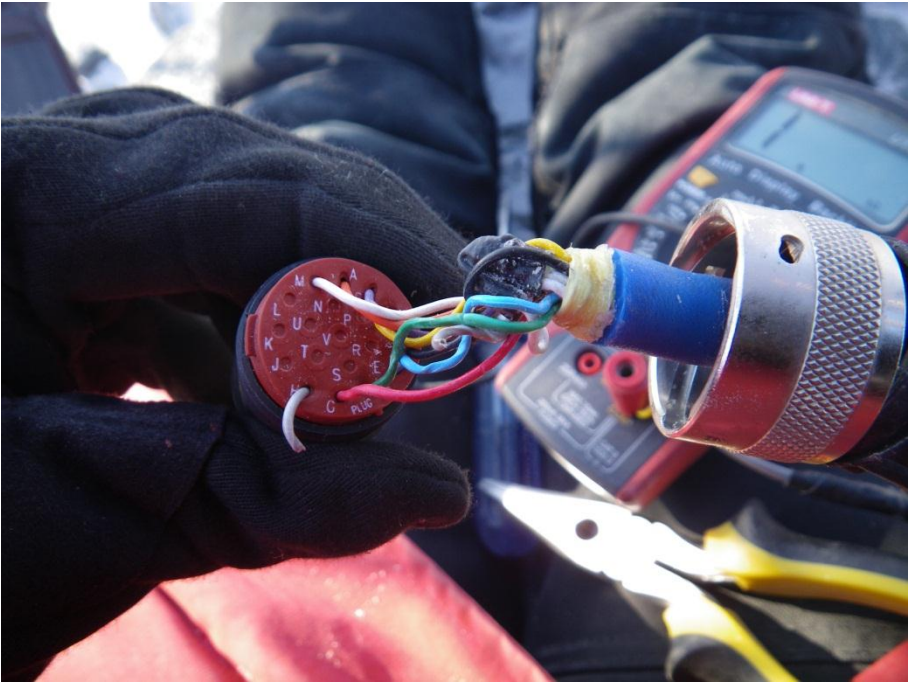


Photo 7: Examining thermistor cable ND-HTS-085-33.5 connector to try and determine why it is not working. The grey wire labeled 'H' was found to be broken; but this does not account for the entire cable not working.



Photo 8: Bentonite placed in base of key trench and under HDPE geotextile.



Photo 9: Over liner crush placed from 160 to 100, looking east along berm. Face of ROQ front visible.



Photo 10: Wrinkle in HDPE liner at approximately station 100.



Photo 11: Bentonite 'plug' placed from 100 to 160, photo looking east.



Photo 12: ROQ placement at the north dam.



Photo 13: Placing and compacting the last of the FCM at approximately station 0+70.

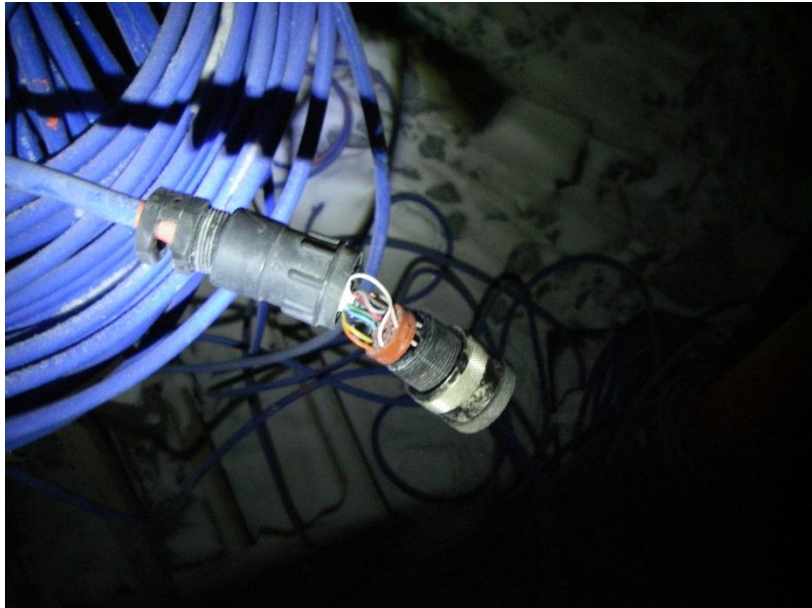


Photo 14: Connector of ND-HTS-060-28.8. No apparent physical damage.



Photo 15: Compacted .Transition material on the upstream slope. Photo looking north-west from Sta. 1+00. Note the lift of ROQ in the background.

FIGURES:

Figure 1: Dayshift North Dam Progress Figure

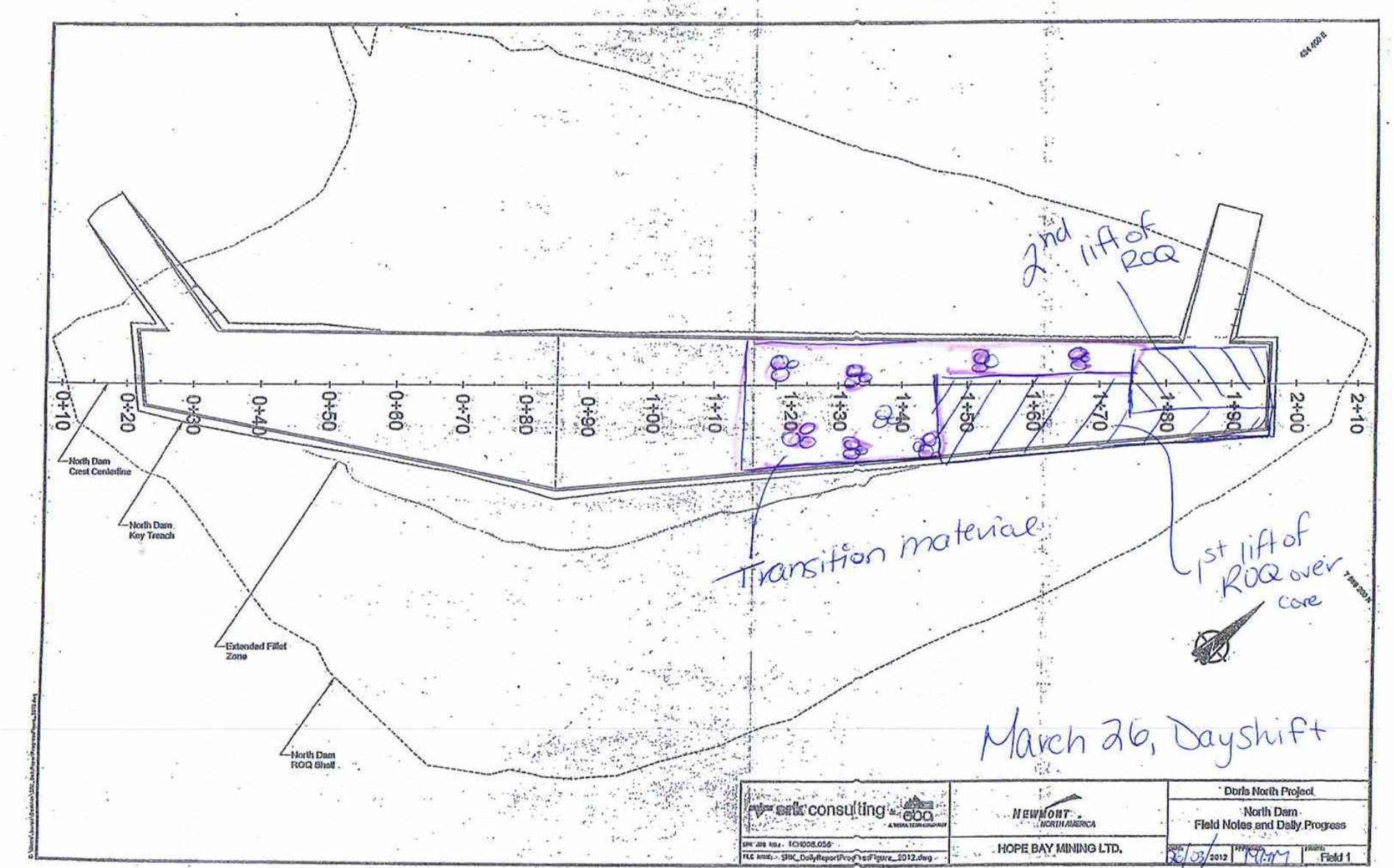


Figure 2: Nightshift North Dam Progress Figure

