

DAILY REPORT #62 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

Prepared by:	John Kurylo Lawrence Borowski	Date:	2012.03.07
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 No Yes 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 No No Yes 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 Iozsef Miskolczi – Site Engineer Lowell Wade – Senior Engineer	Yes No Yes No No No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	Yes Yes No 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 (Night shift) Kyle Kuntz – Project Engineer Margaret Caley – Surveyor Matt McKay – Civil Supervisor Mike MacMaster – Surveyor Mike Price – Field Engineer Nick Stoneberger – Superintendent Rick Peter – Foreman (Day shift) Ron MacMaster – Surveyor Simon Chipper – Civil Supervisor	No No Yes No Yes No No No Yes No No Yes Yes No Yes Yes Yes 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: -28/-42	12PM: -28/-40	6 PM: -27/-37	12 AM
Precipitation (mm)	Rain: None		Snow: None	
Conditions	Day Shift: Clear, light wind .		Night Shift: Clear, cold and windy	
Daily norms (°C)	24 hour high: -25		24 hour low: -30	

HEALTH, SAFETY AND ENVIRONMENT

- John Kurylo and Jennifer Stirling attended the nightly Nuna toolbox meeting.

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

- The daily meeting was attended by HBML [Katsky Venter], Newmont [Dean Wold], JDS [Gerry Graham, Kevin Whieldon, Mark Valeriote]; Nuna [Nick Stoneberger] and SRK [Lawrence Borowski, Jeff Orr, John Kurylo].

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> Safety: Sprinkler discharged in one office on the main floor of the administration building ESR: No issues
North Dam	<ul style="list-style-type: none"> Good day placing ROQ yesterday and last night. Day shift placed from Sta 0+60 to Sta 1+15; Night shift placed from Sta 1+15 to Sta 1+60. Day shift placed 19 loads, night shift placed 14 loads. Total volume was 355 cu.m. Back sloping is now complete from ~ Sta 0 +60 to Sta 1+60 to current surface elevations. Today is freezeback day. Plan to haul ROQ and separation material Frost fighters will continue melting ice and 5/8 material at the south east corner. EBA requested loader assistance for collecting a sample of Transition today.
Water Management Structures	<ul style="list-style-type: none"> Lids for sumps are being manufactured. Final ROQ has been placed from ~Sta 5+80 to Sta 6+78 Snow removal with the excavator starting today. Some discussion on the cable crossing the trench. Cable will go over the trench and liner and is currently planned to be buried in 5/8" material. An inventory of recent culverts that arrived on site is planned to result today.
General	<ul style="list-style-type: none"> Drilling at quarry 2 to continue. Blast today at 4:30 pm.

- A subsequent meeting was held after the morning meeting. This meeting was between JDS [Mark Valeriote] and SRK [John Kurylo and Lawrence Borowski].
 - Discussion was held regarding multi bead thermistors. Elevation of the core material is near the elevation that these thermistors need to be installed. The complete set of multibead thermistor strings at station 1+75 has been installed. JDS confirmed that after the final beads are installed each group will be extended to the edge of the ROQ in crush filled trenches (as previously noted in an RFI). Based on construction progress some of the thermistor trenches may be brought higher than the elevation of the last thermistor string or 33.5m.

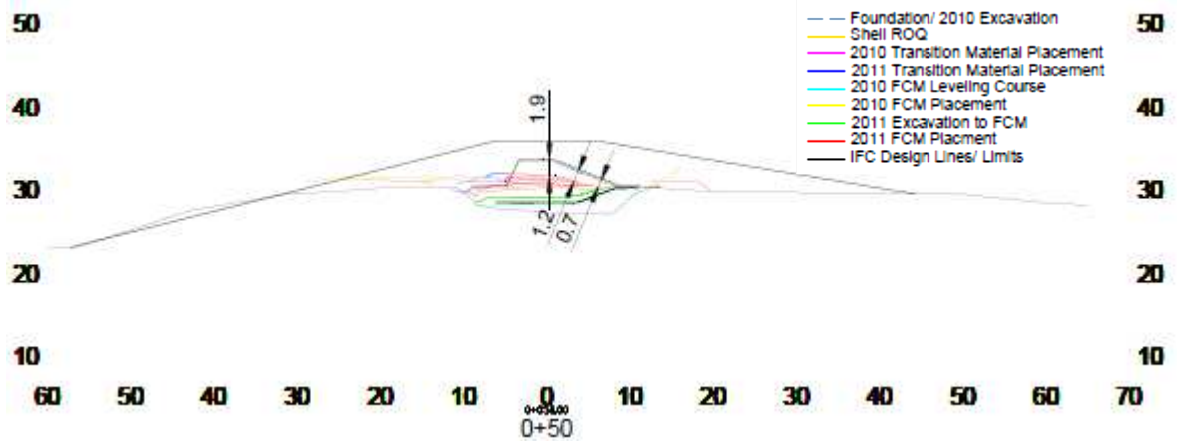
- Some discussion on how the final lift over the GCL liner might be placed and compacted resulted. Based on observations from last year SRK expressed concerns that the 10 ton packer would have difficulties going both ways (up and down) on the 2.5H:1V slope with the upstream core slope and ROQ in its current arrangement (this is mainly in the larger slope section around the central portion of the core). It was agreed that the 10 ton packer would have no difficulties going down the slope. This will be further assessed at a later date. The use of a ramp in the ROQ and pulling back the adjacent ROQ slope to create more of a 'U' shape was discussed. T

SURVEY:

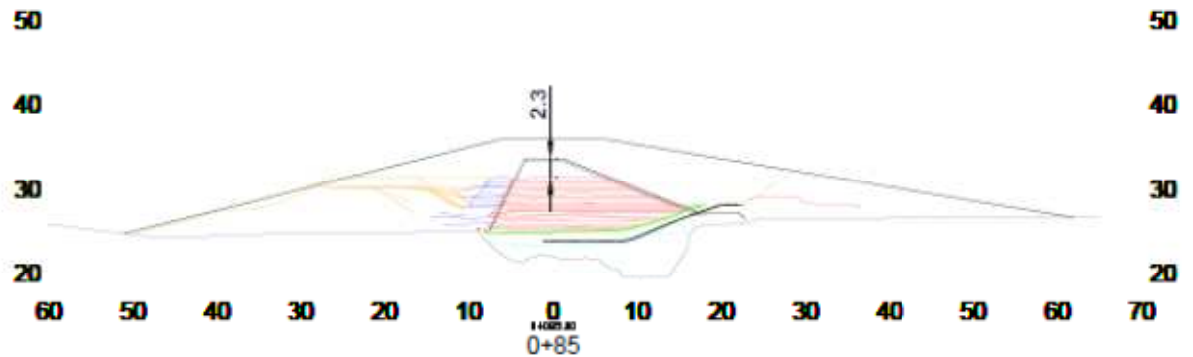
Required	•
Data Received	<ul style="list-style-type: none"> • FCM and Transition material placed on March 6th. • QC Cross sections of work in progress (Rec'd Mar 7th). • Survey for buildings at the Vent Raise (excluding electrical building). • Remaining horizontal cable lift planning map. •
Outstanding	•
Upcoming	<ul style="list-style-type: none"> • Survey of FCM after placement (ongoing). • Survey of Doris North Diversion berm (ongoing).

NORTH DAM/FROZEN CORE PLANT PAD:

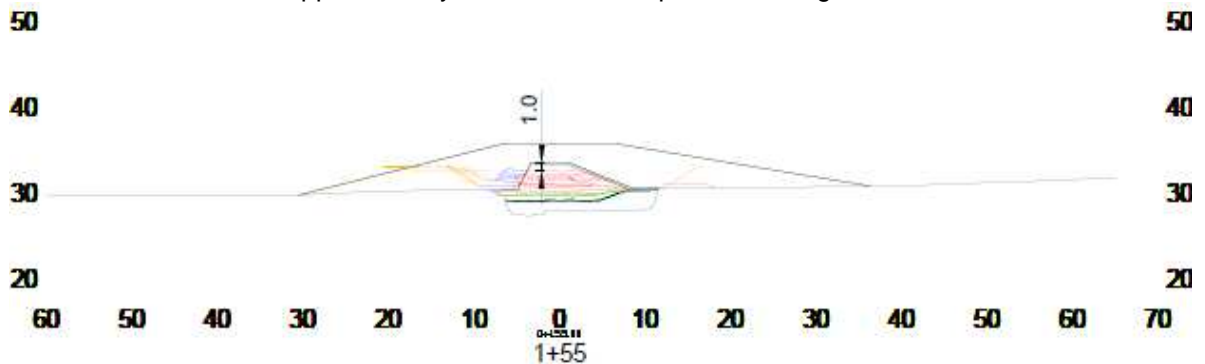
- SRK completed a review of the recent North Dam as-built progress sections. Comments on this review are provided below.
 - **~ 9 lifts remain at the North Dam.** At the current rate (about a lift every two days) there is on the order of 18 more days of placement until core at GCL elevation would be expected.
 - In order to limit placement to 9 lifts the SE area is required to start being addressed / fixed up within the next two lift. The placement in this area can then be done at the same time as the other sections. If this is not started soon additional days / lifts to fix up the SE side will be required (i.e. work that will take > 9 days of placement will be generated). SRK, JDS and Nuna to further discuss tomorrow.
 - The SW end remains underbuilt on the upstream slope. Often a ~ 1m offset of the upstream slope from the design lines has been noted in section around station 0+40 to 0+70.
 - The NE end is closest to final grade and overall is progressing well. In review of the sections there was one small area around 1+75 to 1+85 where the horizontal portion of the core (i.e. the FCM that was placed in up to the OG elevation before the upstream and downstream main core slopes were built up), is ~ 0.1m below design grade. There is some Transition over this area already. As this is not in the main core slopes and more in the key trench core fill it is not planned to be revisited at this time.
 - There is a few select areas where it looks like the upstream ROQ will have to be slightly further pulled back if a tie in to the most upstream crest of the 2010 fillet extension placement will result. This is minor and a small task that could be quickly completed if/ as needed.
 - Around station 0+50, approximately 1.9m of FCM is required to final core grade (i.e. fill over GCL or ~ 1.6m to GCL grade).



- Around the inflection point, at station 0+85, approximately 2.3m of FCM is required to final grade.



- Around station 1+55 approximately 1m of FCM is required to final grade.



Multi-Bead Thermistors

- Multi-bead strings ND-HTS-040-31.5, ND-VTS-040-KT, ND-VTS-060-DS, ND-VTS-085-DS, ND-VTS-130-DS were read.

Frozen Core Plant

Dayshift

- No activity

Nightshift

- Maintenance and clean-up was performed at the plant.

Dam Shell

Dayshift

- Stockpiling ROQ at the downstream side up to Sta. 1+40.
- Excavator completed shaping and sloping backslopes from Sta 0+40 to Sta 1 +30.
- Excavator removing snow from the slopes up to the north thermosyphons.

Nightshift

- Additional snow cleared on the downstream dam around station 1+60 to 1+30.
- Additional ROQ material was placed on the downstream side of the dam in spots around ~1+60 to 1+00. See Photo 10.
- No compaction effort has been observed on the recently placed downstream shell ROQ or Transition material. No packer operator was available on night shift.
- Additional ROQ was placed along the existing top edge of the downstream from ~ 0+60 to 1+60. See Photo 11.

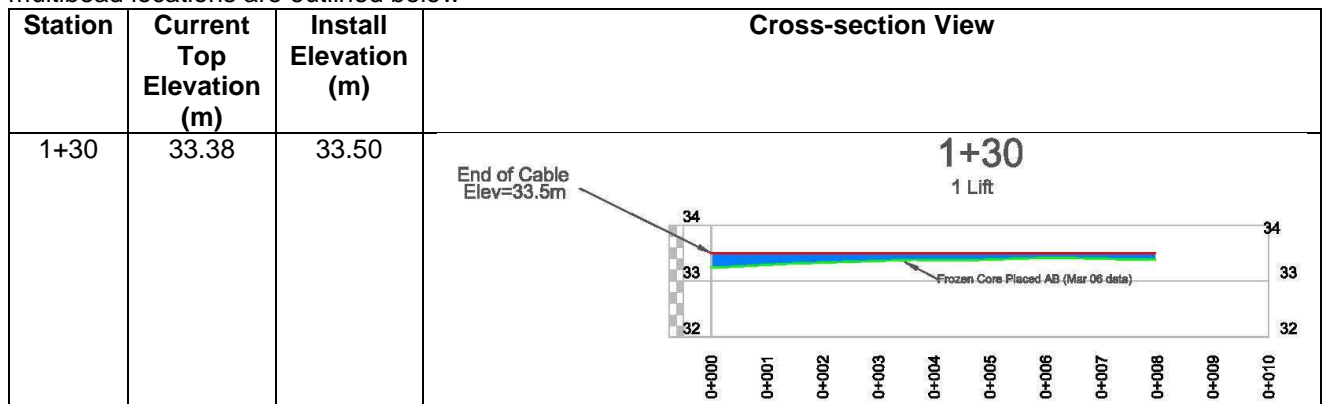
Key Trench/ Central Core

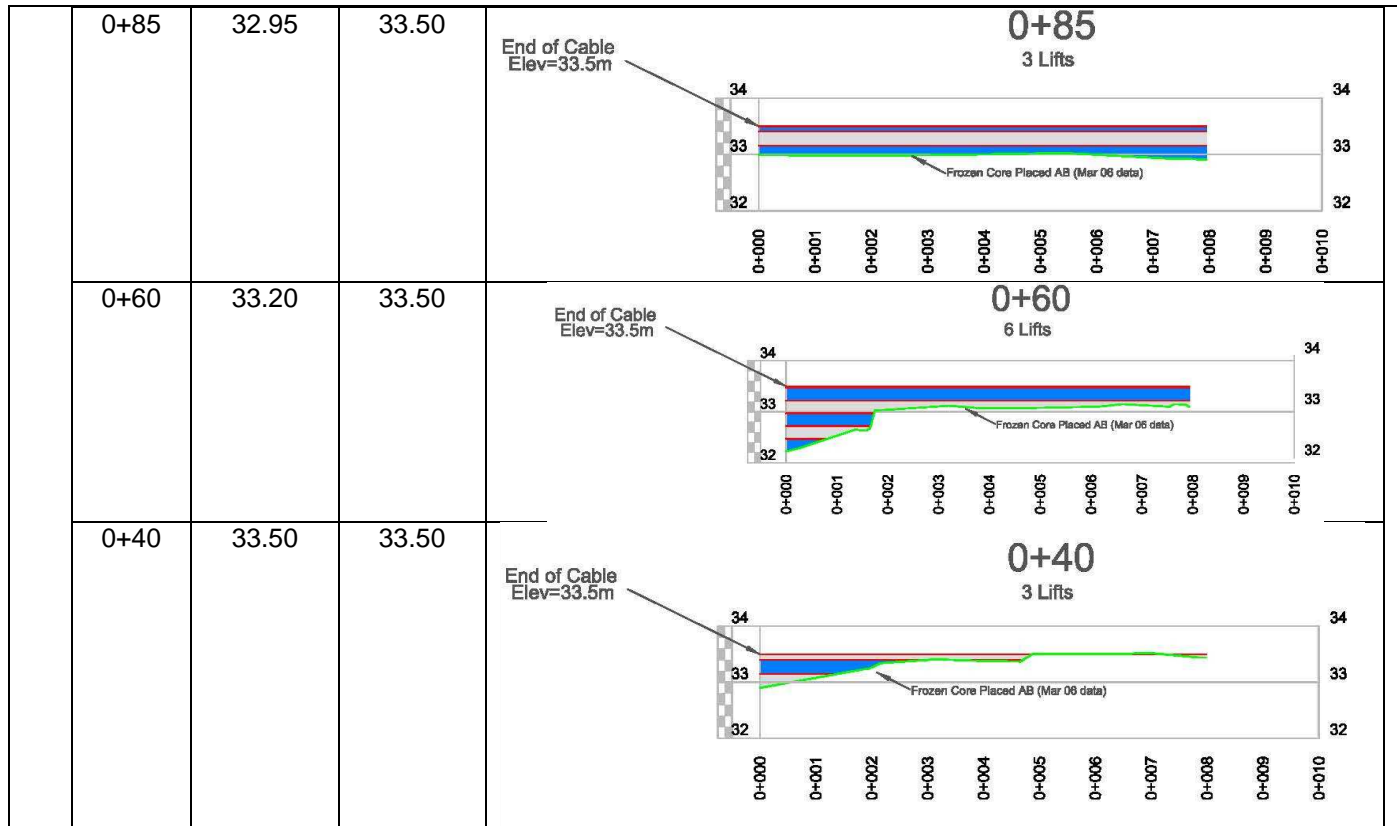
Dayshift

- No freeze back occurred day.
- Labour crews positioning frost fighters at the south east corner.
- To date there have been no requests to inspect areas that have been melted and are cleaned.

Nightshift

- Snow and dental cleaning of the SW upstream slope area from ~ 0+70 to 0+30 was completed on dayshift. A excavator, skid steer and air compressor was used. A small amount of additional cleaning in this area was still required at the end of nightshift.
- Hording and heating with frost fighters continued over the GCL around station 0+40 to 0+70 areas.
 - Some hand shovelling of frozen material over the GCL liner was completed today at the beginning of
 - The 330 excavator was used for a part of the shift to help remove loose material dumped on the temporary HDPE liner and scrapped a little unthawed frozen core material down.
- Core grades at Station 1+30 were rechecked in the field. The elevations of the dam core at the four remaining multibead locations are outlined below





- The dayshift and nightshift single bead thermistors, placed on March 6th, were monitored on nightshift. Around 3:00 the single bead placed on Nightshift achieved freezeback followed by the dayshift thermistor around 5:00. By the end of nightshift freezeback had been achieved everywhere on the dam.

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
			SB17	0+70	CL	SB19	0+80	D/S
			SB10	1+40	U/S	SB18	1+45	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-FCP-TRANS-PSD66-20120307		HB12-FCP-TRANS-PSD66-20120307

MOISTURE CONTENT SUMMARY

Collected	Testing In Progress	Completed

- Two cores were drilled on nightshift. Power was sourced from light plants for the drill and vacuum.
 - Multiple light plants had to be used to complete the first core.

- Minor issues with glycol flow to the drill were experience. These were corrected by the end of shift.
- HB12-ND-CORE-DC68-20120307 was drilled around the centerline at station 1+31.
- HB12-ND-CORE-DC69-20120307 was drilled around the centerline at station 0+86.

DRILLED CORE

Collected	Testing In Progress	Completed
HB12-ND-CORE-DC68-20120307	HB12-ND-CORE-DC68-20120307	
HB12-ND-CORE-DC69-20120307	HB12-ND-CORE-DC69-20120307	

DORIS NORTH DIVERSION BERM:

- Placement of ROQ in the key from ~ Sta 5+80 to 6+78 has been inspected and is complete.
- Excavator working with labourers clearing snow from key trench, working from Sta 5+80, west bound.
- Labour issues are making snow clearing in the key trench a slow process.
- Excavator was cleaning snow at ~Sta 5+50 when it was noted that a previous operator had snagged the HDPE liner and torn it. This will need to be repaired by Layfield.

DORIS SUMPS:

- Lid for sump is being assembled today.
- Some discussion between the welder and Nuna, and later with SRK about the opening for the sump pump. Currently, drawings show the opening as one quarter panel. It was suggested that this opening far exceeds the opening for a sump pump and would be too large to open manually. Accordingly, a smaller opening is proposed. This will be cut unless the welder is instructed otherwise.

QUARRY 2:

- Holes being loaded with explosives during the day.
- Blast at 4:30 pm
- Size of blast is ~ 13,000 cu.m.

GENERAL:

- During this morning's meeting ESR indicated that 100 cu.m of overburden material was required at Boston, as per SRK's reclamation planning.
 - JDS indicated that this material would likely be needed to be drilled and blasted, as it is frozen in the overburden dump. Further, there is no mechanism to move the material from Doris to Boston.
 - ESR to send email to JDS providing background information.
- Issues on site have been experienced trying to maintain labour crews on both night and day shifts.

PHOTOS:



Photo 1: Progress photo from photo point 3, facing NNE



Photo 2: Panorama of downstream slope. Sloped and shaped section is between Sta 40 and Sta 1+30 Excavator is working towards north thermosyphons.



Photo 3: Sloping between Sta 0+40 and Sta 1+30.



Photo 4: Lid for sump being constructed



Photo 5: Frost fighters at south east corner of key



Photo 6: Finished portion of North Diversion Berm
Sta 5+80 to 6+78 facing west



Photo 7: Labourers cleaning key trench prior to placing bentonite.



Photo 8: Liners that were cut during snow clearing.



Photo 9: HDPE that was cut



Photo 10: ~S view of excavator spreading ROQ on downstream slope to 4H:1V.

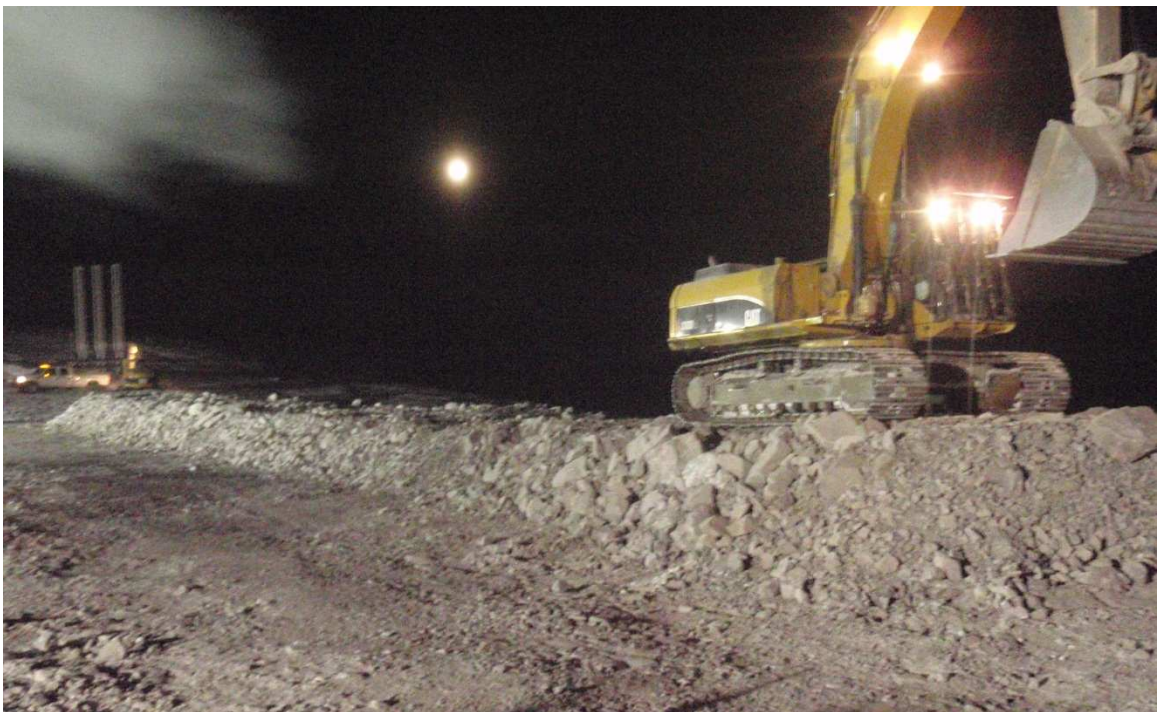


Photo 11: ~WSW view of ROQ placement along the downstream edge of the dam.



Photo 12: HB12-ND-CORE-DC68-20120307 was drilled around the centerline at station 1+31. Note that the top of the core is augmented in shape as this core was stopped short when the power on the light plant went out. A different light plant was sourced but the top portion of the core remained in glycol (as there was no way to draw it out) while another light plant was rigged up.



Photo 13: HB12-ND-CORE-DC69-20120307 was drilled around the centerline at station 0+86.



Photo 14: ~SW view down the dam center liner of construction progress. Note the excavator in the background assisting with cleaning material around station 0+50.

FIGURES:

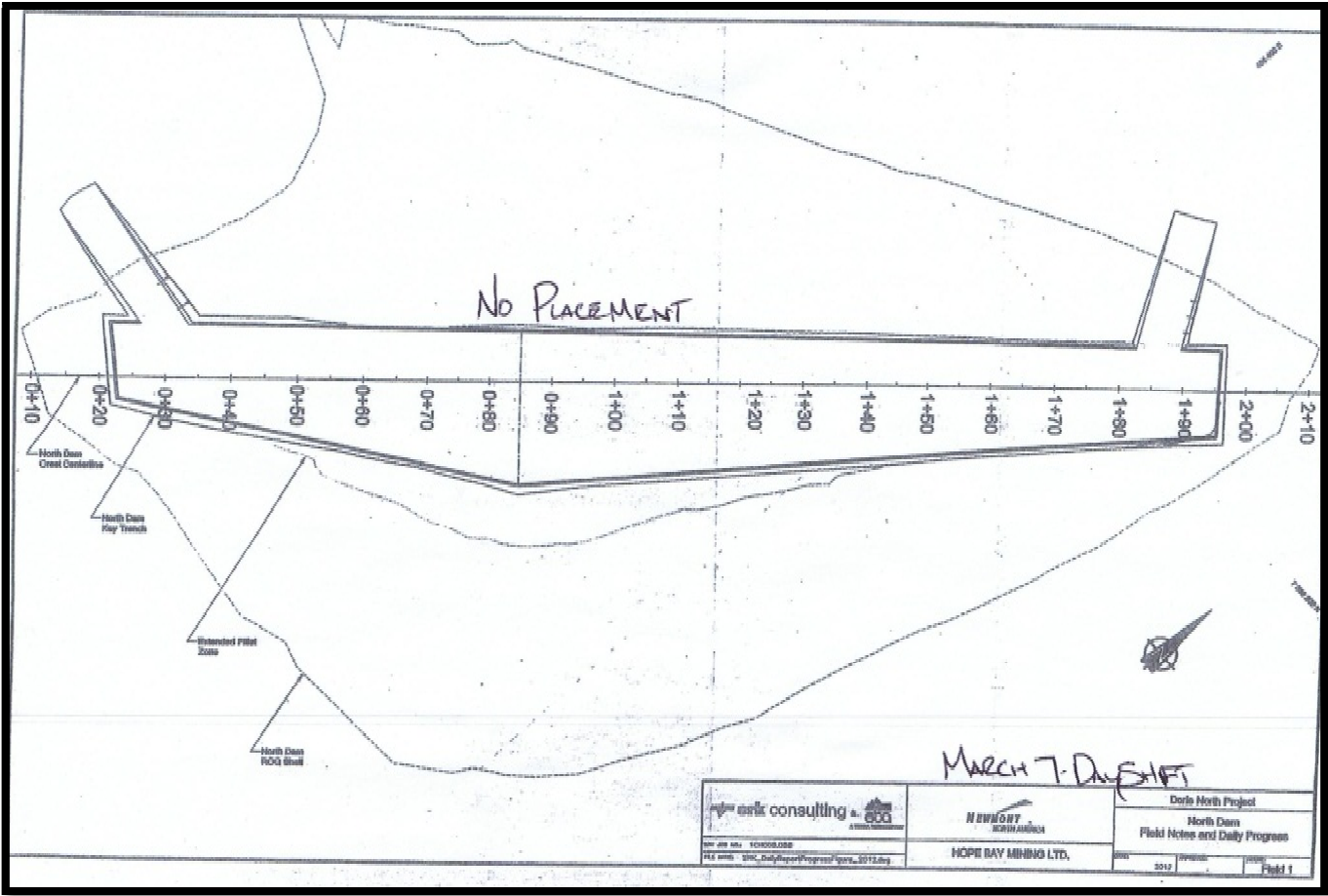


Figure 1 – North Dam Progress – Dayshift

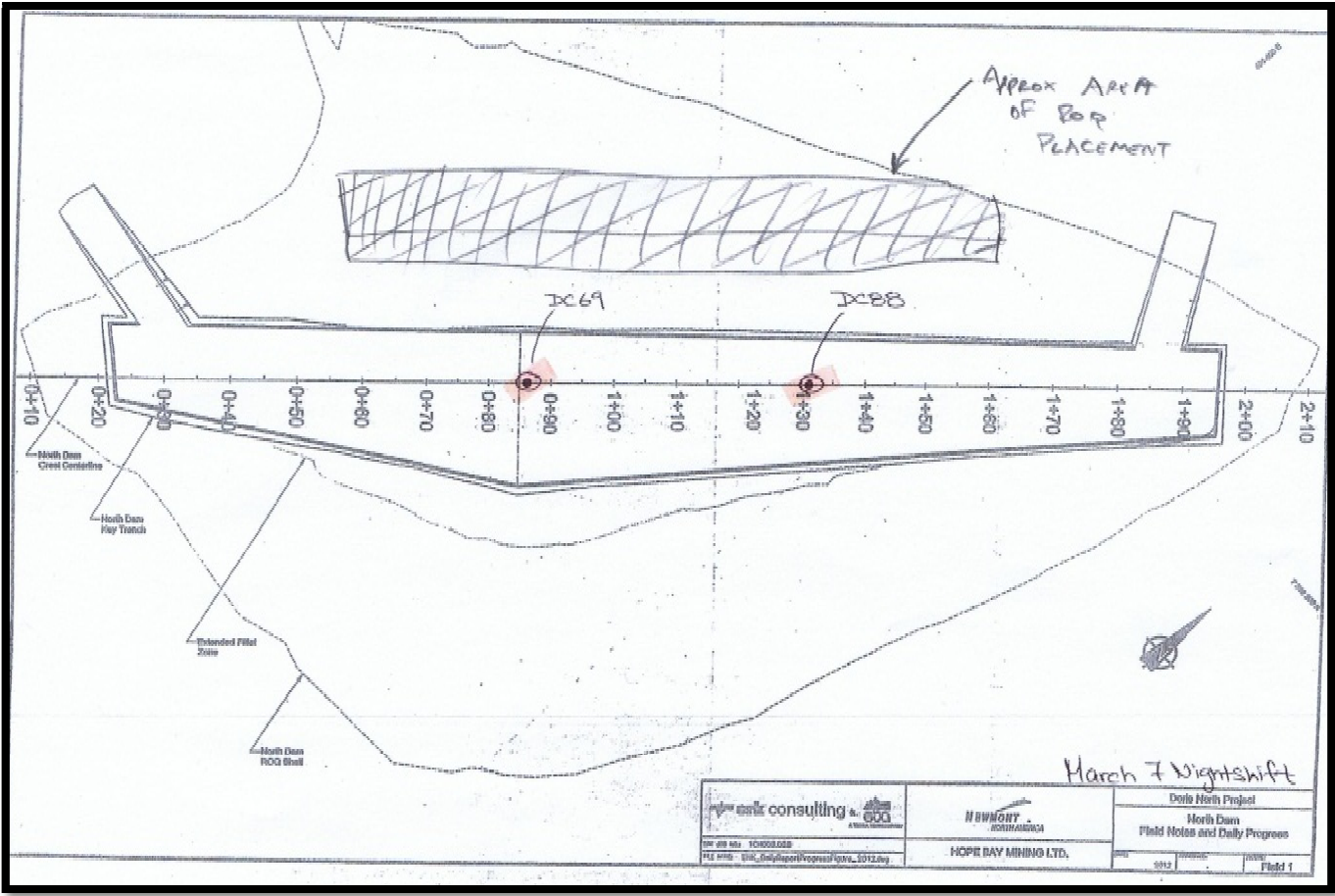


Figure 2 – North Dam Progress – Nightshift