

DAILY REPORT #76 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

Prepared by:	John Kurylo Megan Miller	Date:	2012.03.21
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	Yes No Yes No Yes No 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	No Yes 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	Yes Yes No No No No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	No Yes No Yes
Earthworks Contractor	Nuna Logistics	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 (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 Ron MacMaster – Surveyor Simon Chipper – Civil Supervisor	Yes No Yes Yes Yes Yes No Yes No Yes No No Yes No No No Yes
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: N/A	12PM :N/A	6PM: -24.1/-28	12AM -24.9/ -36.5
Precipitation (mm)	Rain: None		Snow: None	
Conditions	Day Shift: Sunny, bright, light wind.		Night Shift: Moderate wind. Cool. Getting colder throughout the shift.	
Daily norms (°C)	24 hour high:-22.8		24 hour low: -25.2	

HEALTH, SAFETY AND ENVIRONMENT

- John Kurylo and Jennifer Stirling attended the nightly Nuna toolbox meeting.
- Megan Miller and Earnest Palczewski attended the daily tool box meeting.

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

- The daily meeting was attended by Newmont [Don Ethelston], JDS [Doug Fielding, Ishan Fechter, Mark Valeriotte]; Nuna [Doug Haverland,] and SRK [Megan Miller, John Kurylo].

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> • No Issues. • Nuna said that one of their guys went to the medic for sore/stiff muscles. • ESR did not attend the meeting.
North Dam	<ul style="list-style-type: none"> • Nuna stated that they had sourced a welder to supply power to the coring rig. • Placement on overliner material occurred on nightshift, 27 loads were placed. Good production. • Compaction of the overliner material was discussed, and how to increase the efficiency of the packer. • Freezeback has not been achieved the core material is around 0°C. • On nightshift the frozen core plant broke down for approximately 1 hour due to generators overheating.
Water Management Structures	<ul style="list-style-type: none"> • SRK stated that the ROQ on top of the berm appears torn up and needs to be packed. • Nuna stated that good progress was being made on the diversion berm, though completion on Monday is unlikely. • Nuna stated that they are working around the power cable today. The cable is to be turned off before it is moved. • Sumps still need till backfill and the second lid need insulation. Backfilling around the sumps is a filler job.
General	<ul style="list-style-type: none"> • A blast occurred yesterday. Approximately 10Mm³ of additional material needs to be blasted. Nuna plans on doing this in one blast.

SURVEY:

Required	<ul style="list-style-type: none"> Recent multi-bead cable string pickups and crush cover over cables. As-built information for the overliner material placed on March 19. To date as-builts of Doris Diversion Berm (ROQ, underliner crush, liner, overliner crush) Over GCL material placed March 20, 2012. Core material placed March 21, 2012
Data Received	<ul style="list-style-type: none"> None.
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:**Multi-bead Thermistors**

- Electricians completed splicing cables ND-HTS-175-33.5 and ND-VTS-175-KT at station 1+75.
 - During the splicing process the thermistor leads got crossed over; therefore the cable marked ND-HTS-175-33.5 is really reading the vertical key trench thermistor.
 - As the wires were mixed up it appeared as though the last three beads on ND-VTS-175-KT were not working. However this is due to the fact that the two thermistors do not have the same number of pins. The electrician has the Thermistor Connector Fixing Kit and will add additional pins tomorrow.
- Multi-bead thermistor readings were taken of all the thermistors at 175, 130, 085, 060 and 040 on the downstream slope (for all thermistor strings excluding the upstream strings).
 - ND-HTS-085.33.5 found to be not working. None of the beads registered when plugged into the readout box. Readings were attempted several times and all times no readings were obtained (by day and nightshift). The visible cable was examined and there did not appear to be any damage. This will be examined further in the following shifts.

Frozen Core Plant*Dayshift*

- Overliner material (3/4" crush mixed with 5 mm minus FCM) was hauled to the frozen core plant stockpile.
- No plant operator was available for day shift.

Nightshift

- The FCP started producing FCM around 22:15.
 - Temperatures at the plant started around 27°C and then rose to ~30 °C.
 - The setting for the water pump dial was started at 56.6 and then lowered to 55.6.
 - Around 12:45am the water was further lowered to 54.9 on the pump dial.
 - Around 1:00 am the plant started to have some issues with the burner. The setting for the burner had to be constantly varied to keep up temperatures greater than 20°C. While the issues with the burner were being experienced the material consistency / wetness was noted to be very variable. A few loads came out of the plant notable wetter.
 - Around 2:00 the FCM stockpile at the FCP was depleted. The FCP was stopped after the FCM stockpile was exhausted.
 - From ~ 2:00 to 3:00 the burner at the FCP was cleaned as FCM was hauled from the crusher with three trucks and stockpiled at the FCP pad.
 - Approximately from 3:00 to 4:00 attempts were tried to re-start the FCM. At 4:00 the FCP was restarted. Moisture was started at 56.6 again and was noted to be drier and more consistent again (as per normal) post the burner being cleaned.
 - Issues were had with the feed mill. Material off the hopper / grizzly was found to be spilling

over and clogging up the feed. The plant was stopped around 4:15 - 4:30. Additional cleaning resulted after the plant was stopped. See Photo 14.

- 15 loads of FCM were sent to the dam, $\frac{3}{4}$ of a load was sent to the reject stockpile and 1 load (dry) was sent back to the stockpile (total of 102 loader buckets).

Dam Shell

Dayshift

- No activity

Nightshift

- No activity

Key Trench/ Central Core

Dayshift

- Water which had bled out of the overliner material on nightshift had frozen on the lower GCL below the placement area. This area was hoarded and heated to remove the ice.
- 3 to 4 widths of GCL were placed along the upstream edge of the core.
 - The bottom of the GCL which would tie into the lower GCL was not placed immediately due to the ice on the lower GCL. The area was heated and once the ice melted the liner was placed all the way to the bottom.
 - During placement the GCL appeared stripped with dark grey and lighter grey areas. The material was examined closely and though the darker grey areas appeared frozen they did not appear to be hydrated. A photo of this is below.
- The CAT 345 excavator removed debris and HDPE liner from the edge of the fillet zone near 1+00.

Nightshift

- The underbuilt upstream SSE slope (around 0+40 to 0+70) was cleaned by the excavator, skid steer and labourers.
 - The excavator assisted by scraping off loose material from the intermediate slope around this area.
 - See Photos 8 and 9.
- The small underbuilt area around the toe of 1+20 was cleaned and then filled in by the 330 excavator with FCM after the plant started up. Bucket tamping was completed on this material and the thin lift was smoothed by the labourers. See Photos 10 and 11.
- FCM was placed from ~0+30 to 0+90.
 - FCM was placed first in the underbuilt SSE area of the core slope, and then on the top / crest of the core, progressing from the S to the N. See Photos 12 and 13.
 - Material was spread with the 345 excavator in the SSW underbuilt area and with the 330 excavator at the toe at 1+20 and for the top crest placement from ~ 0+30 to 1+10.
 - Due to the inconsistencies noted in the plant / burner setting, see 'Frozen Core Plant' section, some loads of FCM was noted to appear 'wetter' than normal.
 - Due to cold weather conditions the top portion of the placed FCM was noted to quickly freeze to create a crust. As the FCM under this crust was still warm and wet this crust was broken in areas by people walking on the core surface or by the packer coming close to previously packed areas. After freezeback the area will be evaluated to see if additional scraping of the top surface is required.
 - The most southern end of the dam is near the GCL grade now.
 - FCM on the upstream SSE slope was graded around the 3 exposed thermistor beads on cable ND-HTS-060-31.0. The three exposed beads at the end of the string will be installed / buried with water stops on the next lift in this underbuilt area.

- Two drilled cores were drilled.
 - Drilled core 85 (HB12-ND-CORE-DC85-20120321) was drilled with the use of the small Honda backup generator. The length of the core that could be drilled was limited due to the limited output and easily triggered generator breaker. This core was taken from 0+90 centerline. See Photo 15.
 - Drilled core 86 (HB12-ND-CORE-DC86-20120321) was taken with the use of a Ingersoll Rand light plant. This power supply was moved down to the dam to satisfy SRK's drill power requests. Drilled core 85 (see photo 16) was taken from ~ 1+20, centerline to upstream.

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
SB23	0+65	CL				SB21	1+10	D/S
SB26	1+20	U/S						

PARTICLE SIZE DISTRIBUTION SUMMARY

Collected	Processed	Completed
HB12-FCP-CORE-PSD74-QA-20120321		HB12-ND-CORE-PSD73-QA-20120320
HB12-ND-CORE-PSD75-QA-20120321		

MOISTURE CONTENT SUMMARY

Collected	Processed	Completed
HB12-FCP-CORE-MC373-20120321	HB12	HB12-FCP-CORE-MC373-20120321
HB12-ND-CORE-MC374-20120321	HB12	HB12-ND-CORE-MC374-20120321
HB12-ND-CORE-MC375-20120321	HB12	HB12-ND-CORE-MC375-20120321
HB12-ND-CORE-MC376-201203121	HB12	HB12-ND-CORE-MC376-201203121

DRILLED CORE

Collected	Processed	Completed
HB12-ND-CORE-DC85-20120321	HB12-ND-CORE-DC85-20120321	
HB12-ND-CORE-DC86-20120321	HB12-ND-CORE-DC86-20120321	

COMPACTION TESTING SUMMARY

Number of Tests	Material	Tested By	Shift	Notes
0	FCM	EP	Day	No FCM Placed
3	Over GCL Crush	JS	Night	Tests Acceptable

DORIS NORTH DIVERSION BERM:

- Placement of geotextile, liner, bentonite and crush continued.
 - Liner, geotextile and overliner crush were placed from station 250 to 195.
 - Underliner crush was placed up to approximately the cable crossing.
 - Some frozen lumps of crush material were noticed in the placed underliner crush; these were discussed with the foreman and cast to the side.
- Snow was removed in the area of the cable crossing.

DORIS SUMPS:

- Second lid has been fabricated. Insulation is still required to be installed into the sump lids. Tli Cho is planned to complete this work.
- No notable work at Sumps. The sump locations are ready for the sump lids and overburden backfill. The overburden backfill remains stored in bags at the Batch Plant.

QUARRY 2:

- One drill working during dayshift and one drill working on nightshift (i.e. one drill working 24 hours).

GENERAL:

- SRK's truck 10-010 would not start on the dayshift, and the truck was brought to the shop. SRK borrowed a truck from the pickup mechanic. Part of the reason that the truck did not start is that the breaker was blown on the hotline that and the radio stayed on when the truck was off draining the battery.
- The D6 resumed the pushing of the clean snow stockpile further out onto Tails Lake.

PHOTOS:



Photo 1: Daily progress figure from photo point 1, photo looking south.



Photo 2: Daily progress figure from photo point 2, photo looking north west.



Photo 3: Daily progress figure from photo point 3, photo looking north east along dam alignment.



Photo 4: Thermistor cables at 1+75 after splicing.



Photo 5: Looking west along diversion berm key trench. Bentonite 'plug' on right side of photo.



Photo 6: Placing bentonite on GCL seam. Note the striped colouration of the GCL.



Photo 7: Welding of liner on diversion berm, photo looking east.



Photo 8: ~WSW view of cleaning activities in the SSE underbuilt core slope area (Station 0+40 to 0+70)



Photo 9: ~ NNW view of SSE underbuilt upstream slope area after cleaning activities had resulted.



Photo 10: View of 330 bucket spreading FCM in underbuilt upstream slope area around station 1+20.



Photo 11: View of completed placement around 1+20. This placement was completed to fill in the previously underbuilt toe. area.

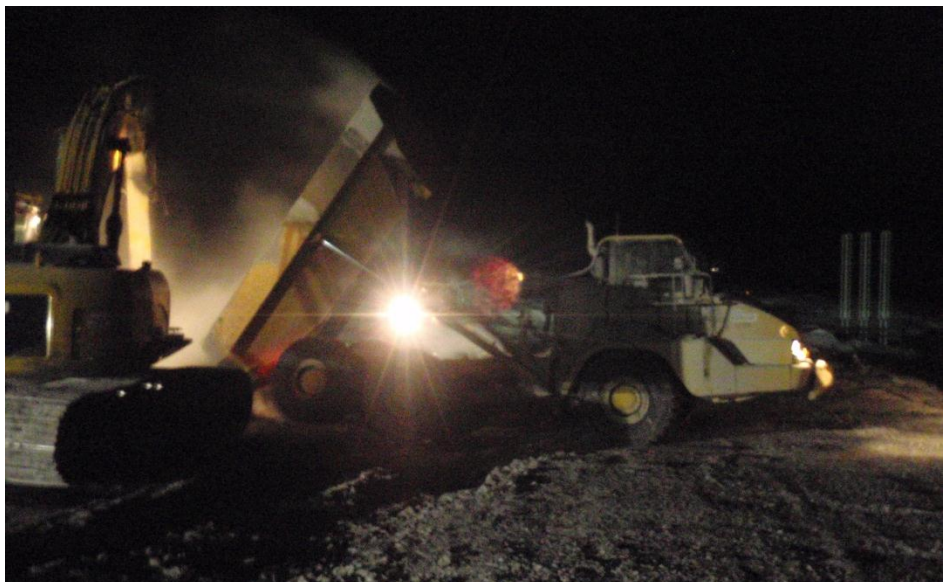


Photo 12: 730 dumping load of FCM around 0+75 for the excavator.



Photo 13: ~ NNW view of SSE underbuilt upstream slope area, after today's placement. Note some water that bled / ran down the side slopes in areas.



Photo 14: Labourers, supported by the loader, digging out feeder and Grizzly at the Frozen Core plant.

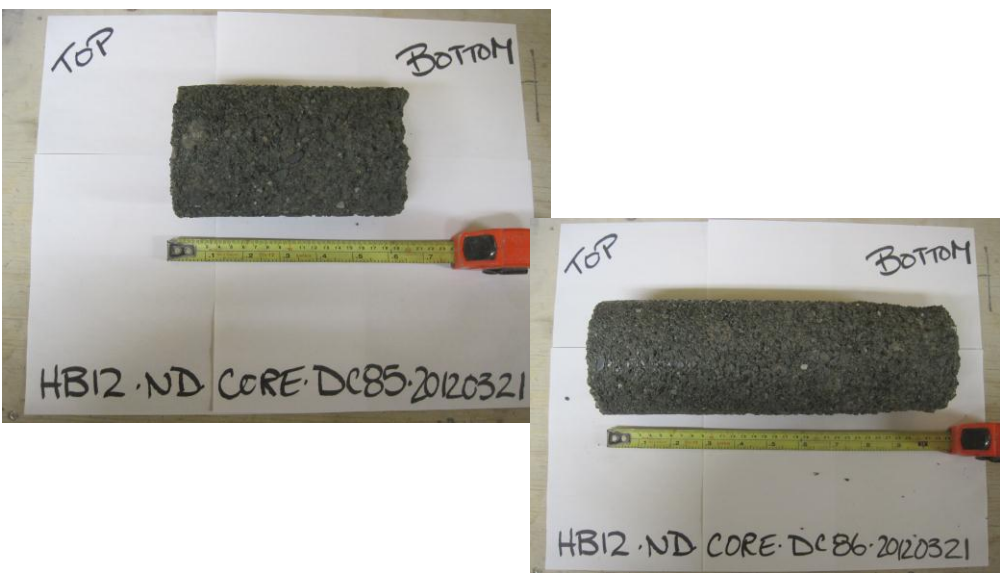


Photo 15 (middle bottom right): Drilled Core 85
Photo 16 (bottom right): Drilled Core 86

FIGURES:

Figure 1 – North Dam Progress – Dayshift

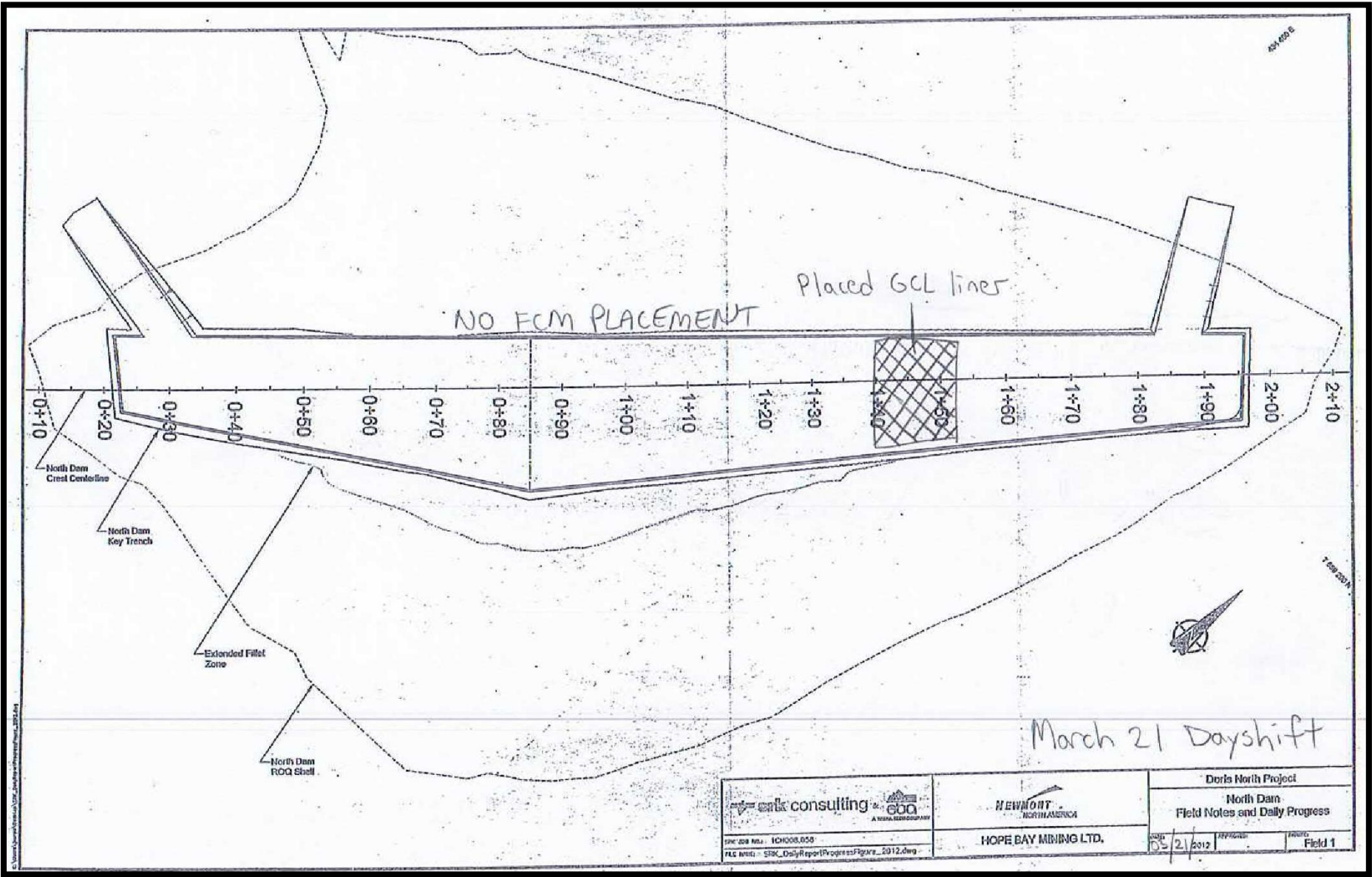


Figure 2 – North Dam Progress – Nightshift

