

## DAILY REPORT #34 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

Prepared by:	Murray McGregor Megan Miller	Date:	2012.02.08
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 Yes
	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	No Yes No Yes No
	EBA Engineering Consultants Ltd.	Jeff Orr – Project Manager Jennifer Stirling – Geologist Thomas Bradshaw – Junior Engineer Ernest Palczewski – Geologist	No Yes Yes Yes
Earthworks Contractor	Nuna Logistics	Ben Vostermans - Foreman Bradford Watkin – QC Manager Doug Haverland – Area Superintendent Gary Sodhi – Field Engineer Georges Cornelissen – Survey Manager Jeff Roberts - Surveyor Jim Cardinal – 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 No No Yes Yes No No No Yes Yes No Yes Yes 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:-20/-50	12PM: -16.9/-48	6 PM: -15.4/-42	12 AM: -19.4/-49
Precipitation (mm)	<b>Rain:</b> None		<b>Snow:</b> None	
Conditions	<b>Day Shift:</b> Cold, strong winds all day.		<b>Night Shift:</b> Clear, moderate wind and some blowing snow.	
Daily norms (°C)	24 hour high: -14.3		24 hour low: -21.7	

**HEALTH, SAFETY AND ENVIRONMENT**

- Megan Miller attended the nightshift Nuna toolbox meeting.
- Ernest Palczewski attended the daily toolbox meeting.

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

- The daily meeting was attended by ADCO, Newmont [ Jill Turk], Nuna [Nick Stoneberger, Simon Chipper, Kevin Oakes], JDS [Jerry Graham, Mark Valeriotte, Kevin Whieldon, Lloyd Jackson], and SRK [Megan Miller]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> <li>• No safety representative.</li> <li>• ADCO mentioned that there work area is very slippery and grading is required.</li> <li>• A power outage is scheduled for 8:00 and after that time the permanent powerhouse will not be running. Therefore a watchperson will not be running. The fire suppression system for the powerhouse should be installed within the next week or so. Once the system is installed a watchperson is not required when it is running.</li> <li>• ESR had no issues.</li> <li>• Installation of the thermistor at the Jetty was discussed.</li> </ul>
North Dam	<ul style="list-style-type: none"> <li>• SRK provided a summary of the north dam activities in the last day.</li> <li>• Nuna plans on placing FCM in the dam on both day and night shifts today.</li> <li>• It was mentioned that the schedule for the dam construction is being closely monitored and any delays have to be documented.</li> <li>•</li> </ul>
Water Management Structures	<ul style="list-style-type: none"> <li>• SRK will be contacting JDS/Nuna later in the day regarding the RFI for the Sump #2 lid.</li> <li>• Nuna does not expect to start drilling Sump #1 for several days as additional work is required to complete the cable relocation.</li> <li>• Nuna plans on excavating material from the diversion berm, and ROQ material should be placed in this area in the next few days.</li> <li>• Layfield is expected to arrive on site on the 16<sup>th</sup>.</li> </ul>
General	<ul style="list-style-type: none"> <li>• The crusher crushed all night Feb 7<sup>th</sup>.</li> <li>• Nuna stated that they plan on making a trial batch of FCM within the next few days.</li> <li>•</li> </ul>

**SURVEY:**

<b>Required</b>	<ul style="list-style-type: none"> <li>• As-built survey of FCM placed Feb 8, 2012</li> <li>• As-built surfaces of FCM placed Jan 15 to Jan 22th in AutoCAD of .xml format.</li> </ul>
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<b>Data Received</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Outstanding</b>	<ul style="list-style-type: none"> <li>• As-built survey of FCM placed Feb 6, 2012</li> <li>• As-built survey of ROQ placed Feb 5, 2012</li> <li>• As-built survey of Transition Material placed Feb 5, 2012</li> <li>• As-built survey of ROQ placed Feb 7, 2012</li> </ul>
<b>Upcoming</b>	<ul style="list-style-type: none"> <li>• Survey of FCM after placement (on going).</li> <li>• Survey of Doris North Diversion berm excavation.</li> </ul>

#### **NORTH DAM/FROZEN CORE PLANT PAD:**

- Multi-bead thermistor readings were taken for most thermistors located within the key trench.
  - The plastic on the connector for ND-HTS-175-32.2 which protects the pins and aligns the pins in the readout box has been broken all the way around the connector. See photo below. It appears as though the pins are fine; however this was not checked with the readout box. It is likely that a new connector will be required.
  - One bead of ND-HTS-060-28.8 is not working.
  - All other read thermistors are in working order.

#### **Frozen Core Plant**

##### *Dayshift*

- Plant was started at 10:30AM, but there were problems with the burner and temperature was insufficient.
- Electricians were called and helped on repairs.
- At 12:30PM the plant was running; material was at required moisture and temperature by 12:50PM.
- After one load of placement, temperatures dropped again and the plant had to be shut down.
- After some figuring, the manual mode was selected and the burner direction was changed in order transfer more of its heat to the aggregate.
- Material was dialed in again and placement commenced at 2:30PM.
- A hot change was performed in order to keep the plant running for night shift.

##### *Nightshift*

- The frozen core plant was running at the start of shift for a 'Hot Change'. The plant ran until ~4:30.
  - The plant was shut down as the operator feeding the plant was required to run the grader on the ice strip.
- The plant had problems with the feeder belt throughout the shift and had to shut down for a bit to clean out all material from around the belt.
- A blend of 1 scoop re-crushed FCM and 1 scoop FCM were used to feed the plant.
- Reject material from the frozen core plant pad stockpile was hauled to the crusher with the CAT 725 haul truck. Near the end of the shift two trucks were used to haul this material.
- Plant temperatures were measured at ~25°C at the start of shift.

#### **Dam Shell**

##### *Dayshift*

- Cat 330 Excavator peeled back 5/8 clear with the help of survey while waiting for the FCP.

##### *Nightshift*

- No Significant activity.

#### **Key Trench/ Central Core**

##### *Dayshift*

- SRK and EBA worked quickly in order to complete three cores on the previous lift before placement began.
- Skid steer with broom attachment swept core in preparation for placement.
- Some chipping at cracked material was necessary to eliminate air voids.
- SRK approved a surface for placement from 1+20 to 0+80 for immediate placement and 0+80 to 0+55 if cleaning is continued ahead of placement; all approval conditional that continual cleaning to be

- performed throughout periods of high winds
  - Some areas needed additional cleaning after cracking partially frozen ground.
- Nightshift*
- FCM was placed from ~0+90 to 0+55.
    - There were a few breaks in material placement due to the issues at the plant.
    - The material in the ground was freezing quickly. In a few places the packer ran onto the placed material in front of the fresh load and cracked the crust of the partially frozen material.
    - On this material the compactor was doing four passes with static roll and two passes with vibrations.
  - Thermistor string ND-HTS-060-31.0 was installed.
    - The last two beads of this string were not covered by FCM, as the end of the string was located too close to the hinge point which is not yet been cleared of 5/8" material. A delineator was placed to mark the exposed end and survey was to flag off the area with stakes and survey tape.
    - Dark blue electrical tape was put around the thermistor as a secondary identifier. The dark blue tape indicates 'Middle Core' thermistor strings.
    - An initial reading was taken and recorded when the string was in place and the bentonite water stops were in place but before FCM was placed on top.

**SUMMARY OF CORE MATERIAL PLACED (AS-BUILT)**

Date	FCM Placed/ Incremental Volume (m <sup>3</sup> )	Cumulative FCM Volume Placed (m <sup>3</sup> )
February 7 <sup>th</sup>	0	3752.7
February 6 <sup>th</sup>	479.4	3752.7

**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
SB10	1+00	Center	SB3	0+77	Center	SB11	1+45	Center
SB6	0+58	Center				SB48	0+58	Center

- 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-CORE-PSD21-20120208	HB12-FCP-CORE-PSD20-20120207	

**MOISTURE CONTENT SUMMARY**

Collected	Testing In Progress	Completed
HB12-FCP-CORE-MC64-QA-201200208		
HB12-FCP-CORE-MC65-QA-201200208		
HB12-FCP-CORE-MC66-QA-201200208		
HB12-FCP-CORE-MC67-QA-201200208		
HB12-FCP-CORE-MC68-QA-201200208		
HB12-FCP-CORE-MC69-QA-201200208		
HB12-FCP-CORE-MC70-QA-201200208		
HB12-FCP-CORE-MC71-QA-201200208		

HB12-FCP-CORE-MC72-QA-201200208		
<b>DRILLED CORE</b>		
Collected	Testing In Progress	Completed
HB12-ND-CORE-DC26-QA-20120208 HB12-ND-CORE-DC27-QA-20120208 HB12-ND-CORE-DC28-QA-20120208		HB12-ND-CORE-DC24-QA-20120206 HB12-ND-CORE-DC25-QA-20120206
<b>DORIS NORTH CAMP:</b> <ul style="list-style-type: none"><li>Two small blasts at the diversion berm key-trench at 12:30PM and 4:00PM. Clean-up with Cat 345 excavator continued.</li></ul>		
<b>SECONDARY ROAD:</b> <ul style="list-style-type: none"><li>No activity.</li></ul>		
<b>QUARRY #2:</b> <ul style="list-style-type: none"><li>No activity.</li></ul>		
<b>GENERAL:</b> <ul style="list-style-type: none"><li>Cold weather is starting to cause equipment with LCDs to become illegible or inoperable after short durations outdoors; some trivial tasks will now take longer to complete.</li><li>The pickup assigned to SRK was running on nightshift.</li><li>Thomas Bradshaw worked a portion of the nightshift. He will be fully on nights starting tomorrow.</li></ul>		



PHOTOS:



**Photo 1:** Progress photo of North Dam from photo point 1. ~SSE view.



**Photo 2:** Progress photo of North Dam from photo point 2. ~NW view.



**Photo 3:** Progress photo of North Dam from photo point 3. ~NE view.



**Photo 4:** Drilled core HB12-ND-CORE-DC26-QA-20120208, top to the right in the photo.



**Photo 5:** Drilled core HB12-ND-CORE-DC27-QA-20120208, top to the left of the photo.

No photo taken of core HB12-ND-CORE-DC28-QA-20120208. This one was quickly wrapped up in order to hastily get to the DCP for start-up.

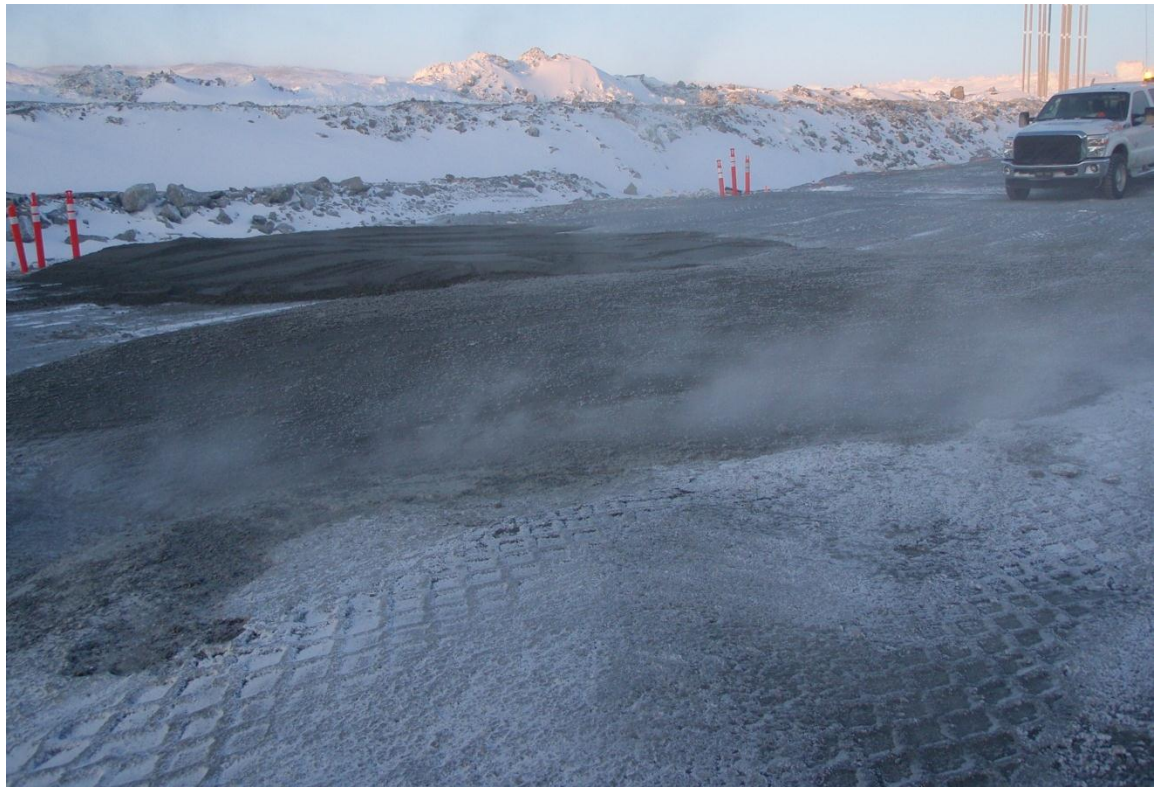




**Photo 6:** Some hand chipping was completed to eliminate air voids in the previously placed lift.



**Photo 7:** Clean up completed after the packer drove over partially frozen ground. All loose pieces were pull out and the surface was swept before the next tie-in.



**Photo 8:** Placement in the afternoon.



**Photo 9:** Pickup truck parked immediately before starting placement. Visible freeze back of surface crust was noted within a couple hours of placement.

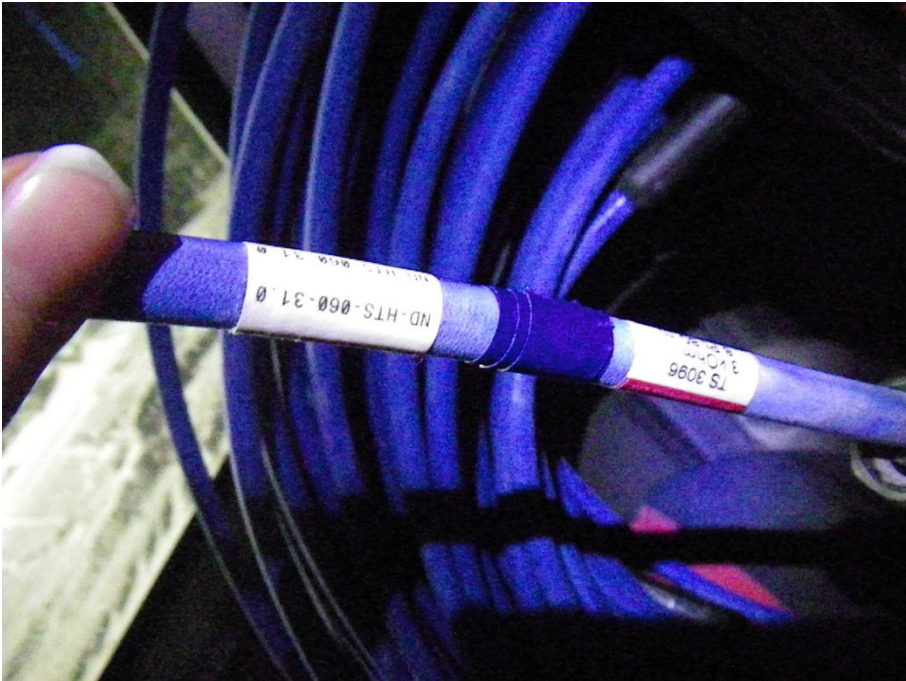




**Photo 10:** Crews worked until 6:30PM for a hot shift change.



**Photo 11:** CAT 330 excavator placing FCM over thermistor cable at 0+60.



**Photo 12:** Identifiers for thermistor cable ND-HTS-060-31.1. Serial number TS 3096.



**Photo 13:** Thermistor cable ND-HTS-060-31.1 laid out with water stops in place ready to be covered with FCM.



**Photo 14:** The plastic surrounding the pins on the connector of ND-HTS-175-32.5.



Figure 1 – North Dam Progress – February 8<sup>th</sup> Dayshift

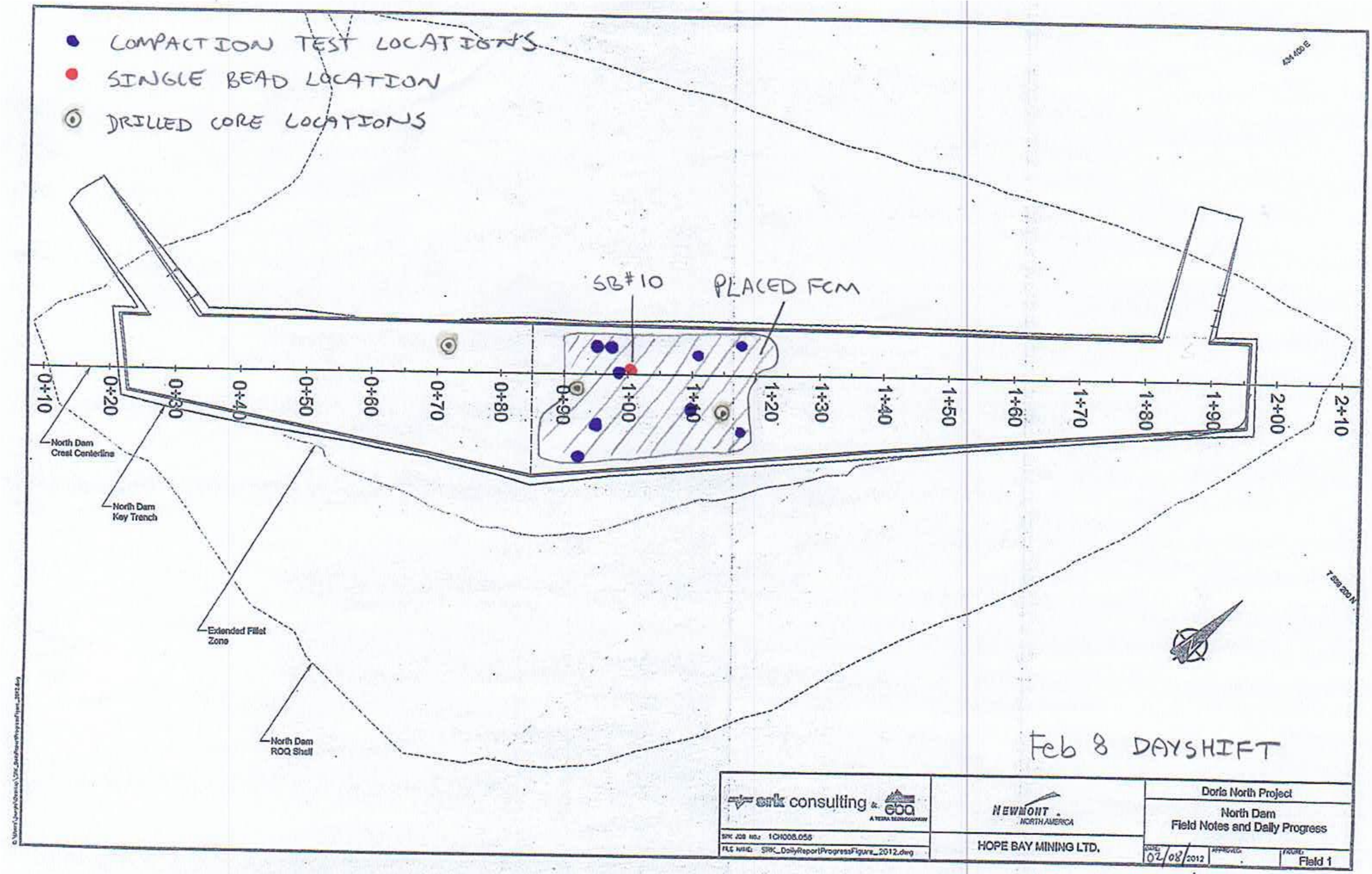


Figure 2 – North Dam Progress – February 8<sup>th</sup> Nightshift



