

### DAILY REPORT #117 – DORIS NORTH INFRASTRUCTURE/ NORTH DAM

Prepared by:	Lowell Wade	Date:	2012.05.01
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 Dean Wold - Safety Jill Turk – ESR Coordinator Katsky Venter – ESR Manger Michelle Tanquay – ESR Site Manager Stirling Kelly – HSLP Advisor	No No No Yes No No Yes
	JDS	Doug Fielding – Construction Manager Ishan Fechter – Construction Coordinator Jerry Graham – Construction Manager Mark Valeriot – Construction Manager Calvin Goldschmidt – Construction Coordinator	No No Yes No Yes
Engineering Design Consultants	SRK Consulting (Canada) Inc.	Lowell Wade-Site Engineer Lawrence Borowski – Site Engineer	Yes No
Earthworks Contractor	Nuna Logistics	Doug Haverland – Area/Site Superintendent Gary Sodhi – Field Engineer Georges Cornelissen – Survey Manager Jeff Roberts - Surveyor Jim Cardinal – Site Services Foreman Mike MacMaster – Surveyor Mike Price – Field Engineer Rick Peter – Foreman Trevor Sorken – Area/Site Superintendent	No Yes Yes No Yes No No Yes Yes
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: -15.0/-21.1	12PM: -12.4/-18.1	6 PM: -8.9	12 AM: -16.4
Precipitation (mm)	<b>Rain:</b> None		<b>Snow:</b> None	
Conditions	<b>Day Shift:</b> High overcast and light snow in the AM clear and sunny in the PM		<b>Night Shift:</b> N/A.	
Daily norms (°C)	24 hour high: -7.7		24 hour low: -16.4	

**HEALTH, SAFETY AND ENVIRONMENT**

- Nothing to report

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

- The daily meeting was attended by Nuna [Trevor Sorkin], JDS [Jerry Graham], SRK [Lowell Wade], HBML [Stirling Kelly]

Topic	Status
Health and Safety and Environment	<ul style="list-style-type: none"> <li>• Safety:               <ul style="list-style-type: none"> <li>○ It is very slippery due to melting and re-freezing snow</li> <li>○ Cleats are available for people working outside.</li> <li>○ The luggage dock door was damaged</li> <li>○ Traffic flow map around Doris Camp to be generated as the Doris Fuel Tank Farm will become the primary re-fueling station.</li> </ul> </li> <li>• ESR:               <ul style="list-style-type: none"> <li>○ Nothing to report</li> </ul> </li> </ul>
North Dam	<ul style="list-style-type: none"> <li>• ND-IN-120-2 was completed</li> <li>• ND-IN-120-1 was started and will be completed today</li> <li>• An attempt to retrieve the lost outer steel casing in ND-IN-120-3 will be made. If unsuccessful a new borehole will be drilled</li> </ul>
Water Management Structures	<ul style="list-style-type: none"> <li>• Snow clearing around the berms at Old Windy Camp.</li> </ul>
General	<ul style="list-style-type: none"> <li>• Two Hercules airlifts remain. There is one Tuesday night and Thursday night</li> <li>• 50,000 lbs of Calcium Chloride salt has been sold. These bags of salt will be transported by Buffalo Aircraft off-site. It is estimated there will be 5 to 6 flights per day with 2 hour turn-around time. There may be up to 50 loads.</li> </ul>

**SURVEY [TO BE VERIFIED]:**

<b>Required</b>	<ul style="list-style-type: none"> <li>• The following as-built files for the North Dam:               <ul style="list-style-type: none"> <li>○ Final compiled ROQ surface and linework</li> <li>○ Final compiled lower GCL surface</li> <li>○ Final compiled transition material surface and linework</li> <li>○ Compiled file of thermistor cables and thermistor cable bedding material (surfaces and linework) this would be for the entire path of the thermistor cables including the information from last year.</li> <li>○ Survey monuments and any backfill materials associated with these monuments.</li> </ul> </li> <li>• The following as-built files for the Doris Sumps:               <ul style="list-style-type: none"> <li>○ Annulus crush backfill</li> <li>○ Annulus overburden backfill</li> </ul> </li> </ul>
<b>Data Received</b>	<ul style="list-style-type: none"> <li>• Nothing received May 1, 2012</li> </ul>
<b>Data Outstanding</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Data Upcoming</b>	<ul style="list-style-type: none"> <li>• The following as-built files for the North Dam:               <ul style="list-style-type: none"> <li>○ Final surface and linework of over thermosyphon crush (after compaction)</li> <li>○ Instrumentation</li> </ul> </li> </ul>

## **MULTI-BEAD GROUND TEMPERATURE CABLES**

- Nothing to report

## **WATER MANAGEMENT**

- Due to limited resources, the snow around the berms at Windy was not removed

## **DAM SHELL:**

- The buttress at 0+60 was constructed.
- The buttress at 0+85 was constructed.
- The Slope Indicator Dummy Probe arrived on-site and was used to on the installed inclinometer casings ND-IN-120-1 to 3. No problems were encountered.
- Drilling of ND-IN-120-1 completed and inclinometer casing installed (Figure 1):
  - Collar elevation = 36.165 m
  - Bottom of inclinometer casing elevation = 29.7 m [6.5 m]
  - Hoe drill using a 6" drill bit and no casing had no problems drilling to 13.5 m depth.
  - Drilling procedure the same as for ND-IN-120-2.
  - The inclinometer casing was assembled and lowered to the correct bottom elevation in the borehole and held in-place by hand.
  - Manufactured fines [i.e. core material] was slowly poured down the sides of the borehole while the inclinometer casing was gently lifted up and down until it firmly sat on the bottom of the borehole at the correct depth.
  - Core material and water were slowly pored around the inclinometer casing to 1.5 m below the collar elevation. The inclinometer casing was gently tapped during the backfilling process to prevent any bridging of back-fill material.
  - A 4" Schedule 40 protective housing was installed over the inclinometer casing. The protective house extends 1.5 m below the surface elevation and 1.1 m above grade.
  - A protective cap has yet to be manufactured.
- The lead outer steel casing lost in borehole ND-IN-120-3 was retrieved
- The weld at the top of the lead outer steel casing failed as it was being removed from the borehole. The bottom of the lead outer steel casing is undamaged.
- Borehole ND-IN-120-3 was reamed and inclinometer casing was installed and backfilled with core material and water slurry.
- Once the core material and water slurry reached 1.5 m below ROQ surface grade it was sounded with a length of rebar to confirm the depth below grade was 1.5 m.
- A 2.6 m length of 4" Schedule 40 pipe was installed over the inclinometer casing for the protective housing. As it was lowered into the borehole the steel pipe did not remain in-place and settled further down the borehole such that the top of the pipe was 1.6 m below ROQ surface grade. Core material and water was used to back-fill the borehole around the 4" Schedule 40 pipe and 2.6 m length of 6" Schedule 40 steel pipe was installed.
- As shown in Figure 2 the resulting installation does not allow for inclinometer readings within the ROQ dam shell as this length of borehole is completely cased.
- An evening conference call with Trevor Sorken, Gary Sodhi, Rick Peter, Lowell Wade, and Maritz Rykaart developed a remediation plan to recover this borehole without delaying the drilling of the remaining boreholes.
  - An excavator will be used to remove the material around the upper 6" steel pipe and the upper portion of the lower 4" steel pipe. The upper 6" steel pipe will be removed. The lower steel pipe will be lifted up to the correct elevation around the inclinometer casing and the excavation backfilled.
  - The remaining 4" Schedule 40 steel pipe protective housings will have a 12" long ¼" thick flat bar welded to one side of the casing. This flat metal bar will act as a "stop" to hold the casing at the correct elevation as the steel pipe is lowered over the inclinometer casing. Only one "stop" will be welded onto the side of the protective housing so as not to interfere with back-filling of the borehole

## **GENERAL**

- Clean-up at Old Windy Cam and at Major's Drill Shop at Patch continues.

## FIGURES



Project No. 104008.0320 Site HON BAY  
 Prepared by L. W. P. Date MAY 1, 2012  
 Approved by \_\_\_\_\_ Date \_\_\_\_\_

Subject ND-IN-120-1 Sheet 1 of 1

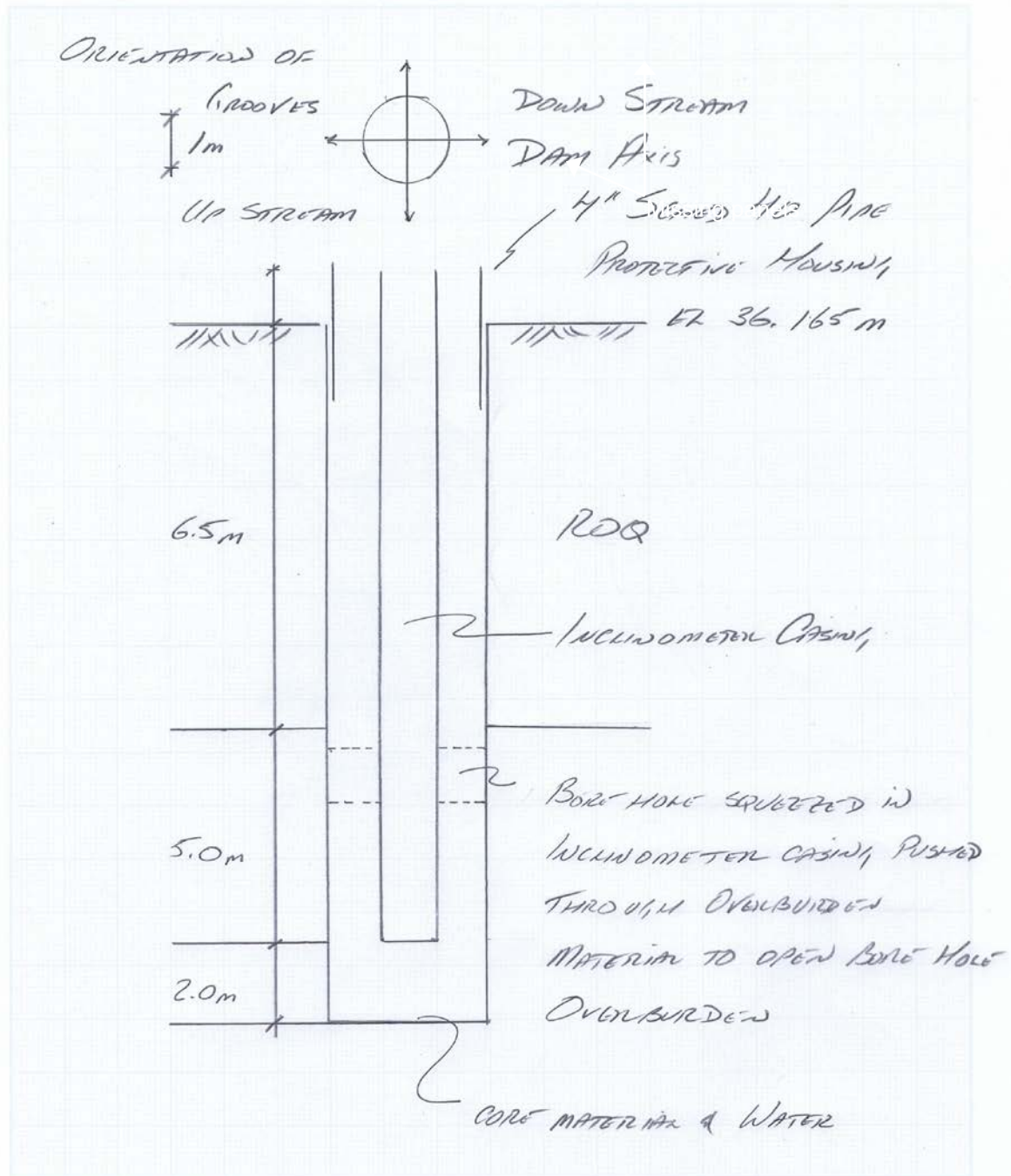
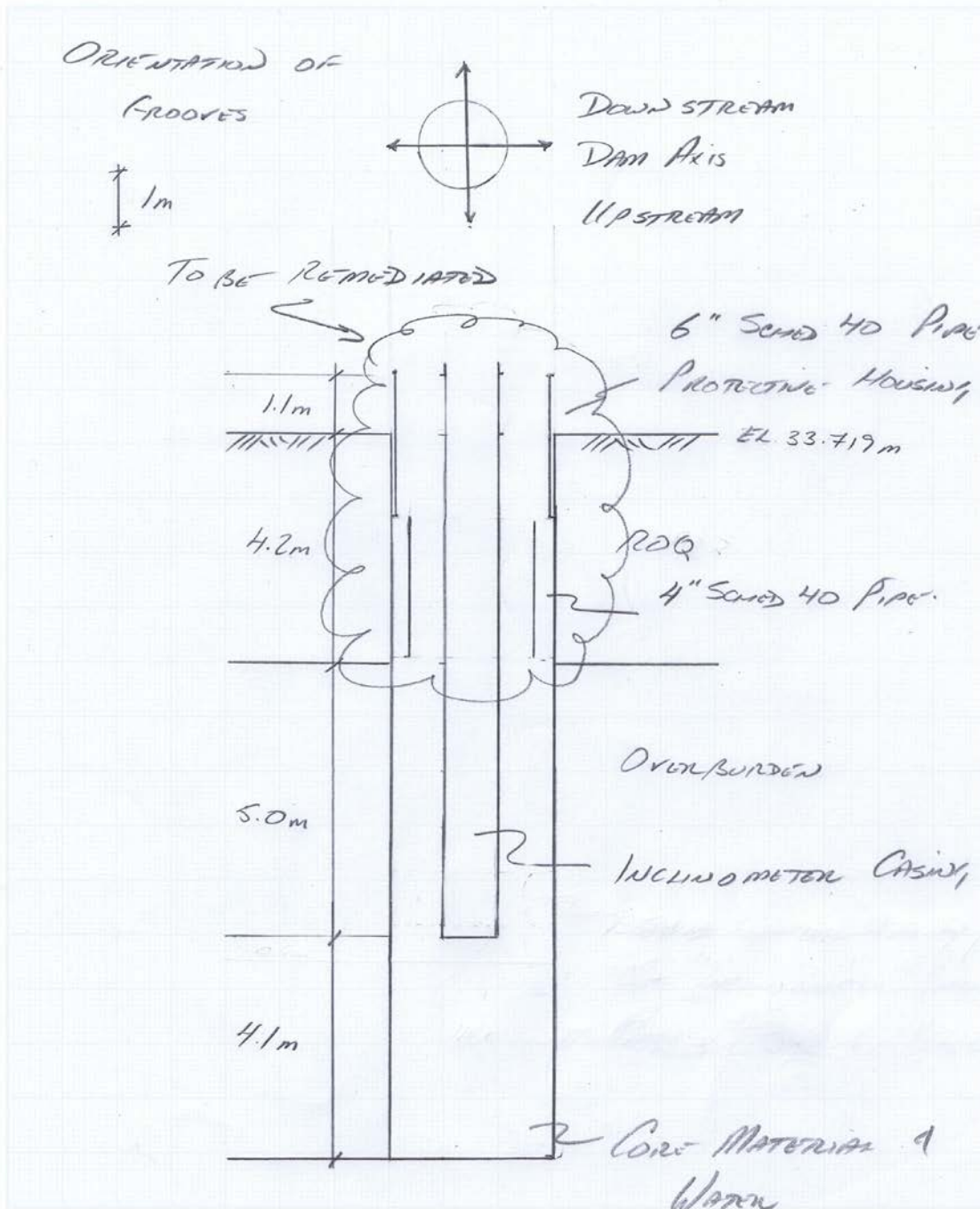


Figure 1: Borehole log for ND-IN-120-1.



Project No. 104008.0320 Site Hase Bay  
 Prepared by L. W. D. Date May 1, 2012  
 Approved by \_\_\_\_\_ Date \_\_\_\_\_

Subject ND-W-120-3 Sheet 1 of 1



**Figure 2:** As-built of slope indicator casing installation for ND-IN-120-3.



## PHOTOS



**Photo 1:** Butress at 0+60.



**Photo 2:** Butress at 0+85.



**Photo 3:** Inclinator installation at ND-IN-120-1 complete. Retrieval of outer steel casing lost in borehole ND-IN-120-3 in progress.