



## PROJECT SITUATION REPORT DISC Drill 2010-11 Season

<b>Project:</b>	T-350-M				
<b>Project Principal Investigator:</b>	Dr. Charles Bentley				
<b>Report No:</b>	11	<b>for period</b>	1-23-11	<b>through</b>	1-29-11
<b>Prepared by:</b>	Jay Johnson	<b>Date:</b>	1-30-11		

<b>ICDS Personnel on Site:</b>	Patrick Cassidy Kristina Dahnert Dave Ferris Chris Gibson (Departed WSD on 1/24/11) Josh Goetz Jay Johnson Jay Kyne Elizabeth Morton Steve Polishinski (Departed WSD on 1/26/11) John Robinson
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### ACTIVITIES DURING PERIOD

- Final week of drilling!
- We reached our depth goal of 3330m on Friday at 10:24am! One day ahead of the scheduled stop date.
- All shifts worked on Sunday.
- Shoe height was reduced from .184" to .181".
- Borehole inclination started at 4.1° and dropped to 3° this season. Inclination stopped decreasing when we switched to the more aggressive .184" height shoes a week ago.
- On two separate drill runs the pump stopped running for no apparent reason. The first time was while tripping down. The second time was while coring. Both times we were able to simply turn the pump back on and continue operations.
- The grease seal on the Z pump began to leak and it also caused the motor to draw more current. The X pump was swapped in. This pump ran well until the last night of drilling. After entering the fluid the pump was turned on. Immediately the torque maxed out causing it to trip out. This pump was replaced with Y. Initial inspection of the X pump showed that over greasing the piston may have caused the pump shaft to bind up.
- Rebuilt the reeds in both screen check valves. Many of the reeds were not closing completely due to use and cable void filler getting stuck under them.
- This week we began to see cuttings refrozen on the cutters at the end of a run. It looks like the cuttings are left on the cutter faces at the end of a run and then refreeze when the drill is brought up. The rest of the cutter head and shoes are always clean.
- After drilling the last core, a temperature logging run was done. The winch was set at .25m/s for both descending and ascending. The entire run took 8 hours. When we touched off the bottom the core dogs engaged on a carrot left from the

previous run. An 11cm long core was recovered with a clean bottom break.

- Josh debugged some issues with the winch control software after coring was complete. When trying to force the computer between states the software used to often crash. This has now been resolved.
- After drilling was complete, one of the vent ports on the instrument section was opened to see if it had leaked. ~100ml of fluid was drained out.
- The temperature at -3331.5m is -10.67°C.
- Packing began on Friday night.
- The winch cabinet crate is packed and will fly to MCM on Monday along with a few other smaller pieces of our cargo. The winch cabinet crate and fire extinguishers will winter in MCM this season. All other cargo will leave WSD on Wednesday.
- 767.168m of core were drilled this season over a period of 43 days. This includes days off and down time for repairs.
- Final Driller's depth for the week: -3331.538m. Total meters drilled this week: 140.057.

### **SAFETY**

- Nothing to report

### **COMMENTS**

**(Problems, Concerns, Recommendations, Etc.)**

- Nothing to report