

PROJECT SITUATION REPORT

Project:DISC Drill Test-Summit GreenlandProject Manager:Alex ShturmakovReport No:8For period:6-12-06through6-17-06Prepared by:Jay JohnsonDate:6-18-06

Weather Conditions: Temperature range –28°C to -8°C, wind 2 to 19 knots.

ICDS Personnel on Site:	Jay Johnson Kristina Dahnert Michael Jayred Bill Mason Nicolai Mortensen Paul Sendelbach Laurent Augustin John Robinson Scott Haman John Fowler
Other Personnel on Site:	John Fowler

ACTIVITIES DURING PERIOD

- Personnel On Wednesday Laurent Augustin and John Robinson left camp and John Fowler came in. John will be working with us until the end of the season.
- Drilling This week we drilled a total of 175.933 meters. The borehole depth is 458.543 meters. The average core length was 2.19 meters. The longest core drilled this week was 3.08 meters. The average core length we are able to drill has decreased as we have drilled deeper. We have been running each drill run until we lose penetration. The screens are full when a three meter core is drilled, but when we lose penetration with shorter cores it is due to the head plugging only. The screens still have space in them for more chips. This week we have been experimenting with feeding the drill fast enough for the drill to ride on the shoes. When we do this the cable tension and motor current graphs smooth out. We have had the best luck drilling long cores by dropping about 1000n of tension off the crown sheave at the beginning of the drill run and holding that tension for the remainder of the run. We have been running the cutter between 60 and 90 rpm and the pump from 2000 to 3000 rpm during this week's tests. Feed rates have ranged from 5 to 10 mm/s. Running the drill on the shoes has greatly reduced the number of fractured cores.
- Core dog cages When the cutter head gets packed with chips the core dogs also get chips packed behind them so they can't retract when pushing the core out. To solve this problem I milled a notch in each core dog cage so any chips

that get packed behind them can be cleaned out or will push out of the openings when the core is pushed out. This modification is working very well.

- Instrument section Due to the problems with getting the cutter motor to start, we switched from instrument section K to section J at the beginning of the week. Section J initially ran better, but then we began having problems getting the pump motor to start. This is the same problem we were having with the cutter motor and the K instrument section. Nicolai opened up the K instrument section. While he was looking for problems, the solder on the side of a connector on the cutter motor controller board fell off. All eight solder joints on the connector were bad. He fixed the connector and we put this instrument section back in service. It has been working without problems since the fix. Current drill configuration is "A" anti-torque section, "K" instrument section, and "Z" motor section.
- Winch The level wind on the winch continues to fault out now and then. We
 are typically tripping down hole at only 0.5 m/s to avoid having to restart a drill
 run due to the level wind faulting. The latest problem is that when you are in
 computer mode with the winch tripping down hole and you tell it to stop it can
 take up to 30 meters for the winch to stop. Sometimes it will stop in less, but not
 predictably. Paul changed the deceleration rate parameter in the computer and
 the winch stops better now, but the problem isn't truly fixed.

COMMENTS (Problems, Concerns, Recommendations, Etc.)