

## PROJECT SITUATION REPORT DISC Drill 2012-13 Season

**Project:** T-350-M

**Project Principal Investigator:** Dr. Charles Bentley

**Report No. 3 for period:** 11-25-12 **through:** 12-1-12

**Prepared by:** Kristina Dahnert **Date:** 12-2-12

### IDDO PERSONNEL ONSITE

Kristina Dahnert  
Chris Gibson  
Josh Goetz  
Mike Jayred  
Jay Johnson  
Nicolai Mortensen  
Elizabeth Morton  
Patrick Cassidy (in MCM)  
Dave Ferris (in MCM)  
Jason Goetz (in MCM)

### ACTIVITIES DURING PERIOD

- Sunday was a day off for all of camp
- The 225kW generator was taken down for preventive maintenance on Monday. That combined with 25-40 knot winds and visibility less than ¼ mile kept us working in town for the day.
- Mike was re-PQed on Monday, 11/26/12
- Jay, Chris and Nicolai arrived in MCM on Monday, 11/26/12
- Dave, Patrick, Jason and Mike arrived in MCM on Wednesday, 11/28/12.
- Forwarded all remaining drill cargo on continent to WAIS Divide (WSD). Four non-critical items are still in transit to MCM as scheduled.
- Re-wired centrifuge PLC and tested system
- Cleaned fluid collection tank
- Moved tower base over approximately 3/4" and later raised the tower feet 4-3/8" to bring the tower-to-levelwind struts back into alignment.
- Re-installed truss at core transfer station
- Worked to repair and level drip pans on slot floor and around borehole casing pan
- Carpenter crew raised ventilation ducting on drill side of core processing bulkhead wall to allow for travel of the yellow gantry crane
- Adjusted floating crane rail on one side of the Arch and ensured proper travel of the yellow gantry crane
- Carpenter crew finished all floor modifications in the Arch, removed ventilation and air intake covers, relocated hand rail between winch pit and control room,

secured the winch pit ladders, raised the window above the core transfer truss and reworked the floor around the tower base to allow for movement.

- Placed and wired the winch cabinet
- Re-installed the 150 hp winch motor
- Re-leveled the optical table, placing blocks and shims under one side
- Installed computer equipment and the Glassman high voltage power supply in control room
- Jay, Mike, Chris and Nicolai arrived at WAIS on Friday, 11/30/12
- Received one pallet (12 drums) of Isopar K drilling fluid on Friday, 11/30/12
- Placed and set up the MECC machine shop
- Assembled drill on cable and began testing on optical table
- Completed software updates
- Machined parts for actuator sections
- Gave several tours of the Arch this week for both camp visitors and camp staff
- Jason attended the two day Happy Camper course in MCM on Friday and Saturday.
- Don Voigt gave his science lecture for all of camp on Thursday, 11/29/12, the same talk he gave in McMurdo a week earlier.

## SAFETY

- Placed the fire extinguisher in MECC
- Placed first aid kits and eyewash bottles in the Arch. Also mixed and installed the large eyewash station.
- Elizabeth, Krissy and Don Voigt attended the weekly camp staff safety meeting. This week's focus was on packaging and transporting patients in the event of injury or illness. Elizabeth and Krissy also demonstrated use of the special backboard/stabilization/extraction harness used in the event of a fall into the drill slot or core processing basement.
- Visitor Safety Analysis Forms filled out for all Arch tour participants

## COMMENTS

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

- Weather in camp has steadily increased this week allowing clearing of snow to resume around the end doors of the Arch and cargo to be moved in on the drill side. Good progress was also made on digging out the 'Moose Door' (side entrance) of the Arch late this week.
- The borehole fluid level was measured three times throughout the week. At the end of the 2011-2012 season, the fluid level was brought up to 42.6m, but dropped to 36.3m by the next day, suggesting that either the casing was leaking or the depth was measured incorrectly. The fluid level was again raised to 36.3m and was found to have decreased to 36.7m overnight. This is where the level was left as of 1/30/12. Current measurements indicate the fluid level is at 69.2m, again indicating there is a leak. It has been verified that a casing seam exists at 69.8m depth, which is the likely trouble spot. This issue will be discussed further with the Chief Scientists.