Data Management Plan

INTEGRATED EARTH DATA APPLICATIONS
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Primary Investigator: Charles Wheat
Institution: University of Mississippi
Project: Collaborative Research: Completing North Pond Borehole Experiments to Elucidate the Hydrology of Young, Slow-Spread Crust
Co-PIs: Becker, Orcutt
NSF Division: OCE   **Solicitation Info:** PD 98-1620   **Submission Date:** 02/15/2015

Overview: We will be recovereing borehole insturment string with several types of OsmoSamplers, sensors, and experiments. Also we will collect borehole fluids and downloade pressure data.

Sensor data will consist of dissolved oxygen, temperature, flow rate, and pressure. These data will be adjusted for drift based on post calibartion of the sensors.
Fluids samples wil be analyzed for a variety of dissolved species and C stable isotopes, using a varieit of standard measurement that were developed for small sample volumes.
Mineral coupons will be analyzed for mineralogy, SEM, XRF, and XANES

Data description: digital data: 5 year record, every hour pressure, temperature and dissolved oxygen.
digital data: 12 hour record every 10 seconds
Chemical - major, minor, and trace ions, and stable isotopes of C
Mineralogical - mineralogy, extent of alteration, C content

Data analysis summary: The digital data (temperature, pressure, dissolved oxygenand flow rate) will be corrected for instrument drift. Pressure data will be de-tided. All geochemical and mineralogical data will be based on appropriate standards

Includes field work? Yes
Description of field work: We are requesting a 13-day-ROV expedition to the North Pond instrumented boreholes (CORKS). North Pond is west of the Mid-Atlantic Ridge

Expected data product #1
Data type: Processed Data
Responsible investigator: Wheat
Product description: major, minor and trace elements in seawater, and C systematics
dissolved oxygen data
Intended repository: VentDB
Timeline for data release: Two Years from acquisition/analysis

Expected data product #2
Data type: Processed Data
Responsible investigator: Becker
Product description: pressure, temperature, and flow meter data
Intended repository: NGDC
Timeline for data release: Two Years from acquisition/analysis

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Expected data product #3
Data type: Processed Data
Responsible investigator: Orcutt
Product description: XRD, SEM, XANES mineralogy
Intended repository: PetDB
Timeline for data release: Two Years from acquisition/analysis

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