Trends and Challenges in Sampling the Deep Subsurface

Thursday, February 20, 2014
8:00 am - 3:00 pm
Downtown Hilton
401 N High St, Columbus, OH

As interest in biospheres from seafloor sediments and the terrestrial subsurface increases, recovered materials are sampled to limit contamination and preserve accurate microbial, geochemical, and mineralogical signatures. An interdisciplinary team from Ohio State University have organized a workshop that includes scientists from academia, government agencies, and industry involved in the drilling and sampling of cores from terrestrial and oceanic environments. The primary objective of this workshop is to identify best practices for the sampling, preservation, and analysis of material from the deep subsurface.

This one-day workshop will focus on discussion and intellectual exchange, with short presentations from invited panelists followed by round table discussions with attendees. Areas of discussion include:

- Sample retrieval under in situ conditions
- Sample preservation to limit contamination during drilling and core retrieval
- Detection of contamination in recovered samples
- Identifying biological material in cores
- Nucleic acid and other biomarker extractions from core
- High-pressure microbial enrichments or isolations

Workshop panelists include:
Dr. Jen Biddle, University Delaware
Elizabeth Denis, Kate Freeman Lab, Penn State Univ.
Dr. Jim Frederickson, Pacific Northwest National Lab
Dr. Tom Kieft, New Mexico Tech
Dr. T.C. Onstott, Princeton University
Dr. Susan Pfiffner, Univ. Tennessee, Knoxville
Dr. Tommy Phelps, Oak Ridge National Lab
Dr. Matt Schrenk, Michigan State University
Dr. Lee Petersen, Itasca Consulting

Registration for the workshop is free for the first 35 registrants through support from Ohio State's College of Engineering and College of Arts and Sciences and the Sloan Foundation's Deep Carbon Observatory.

To register or for more information, contact Dr. Paula Mouser, mouser.19@osu.edu.
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Workshop Agenda

Downtown Hilton, 401 N High St, Columbus, OH
Hosted by the Ohio State University and the Deep Carbon Observatory
February 19-20, 2014

Wed Feb 19
7:00-9:00 pm  Opening Reception at the Hilton
              RSVP by Feb. 12 to mouser.19@osu.edu

Thurs Feb 20
8:00-8:30  Continental Breakfast
8:30 am  Welcome and Charge
          Paula/Mike/Kelly Biodiversity Project
          Jeff Daniels, SERC Director and SES Professor
          Tim Carr, Shale Energy Initiatives at WVU
9:00  Battelle Summary of O&G Projects
      Neeraj Gupta and Matthew Place
9:10  Legacy DOE Terrestrial Drilling
      Dr. Jim Frederickson, Pacific Northwest National Lab
      Dr. Tommy Phelps, Oak Ridge National Lab
9:50  Round Table Discussion
10:10  Coffee Break
10:20  Carbon/Biomarkers in shale/basalt/deep sea
       Dr. Susan Pfiffner, University Tennessee, Knoxville
       Elizabeth Denis, Penn State Univ. (Freeman Lab)
11:00  Discussion
11:20  Deep Rock Drilling
       Dr. T.C. Onstott, Princeton University
       Dr. Tom Kieft, New Mexico Tech
       Dr. Lee Petersen, Itasca
12:20  Lunch
1:30  Deep Subsurface Genomics
     Dr. Jen Biddle, University of Delaware
     Dr. Matt Schrenk, Michigan State University
2:30  Final Discussion
3:00  Workshop Adjourns
3:00  Panelists Closed Session