

October 2012 News Notes

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Student AAPG chapter prepares for the IBA challenge

The AAPG Eastern Regional conference was held in Cleveland, Ohio from September 22nd through the 25th. The Ohio State University Subsurface Energy Resource Center (SERC), School of Earth Sciences, Subsurface Energy Materials Characterization and Analysis Laboratory (SEMCAL) and the Buckeye Shale Energy Organization (BSEO) were all represented by two exhibition booths (see photos below). These booths received much attention from industry recruiters as well as prospective graduate students.

Representing these organizations were 12 graduate and undergraduate students from the newly formed AAPG student chapter. Matthew Hawrylak, Cody Trigg, and Joe Voyles presented posters at the student job quest and the regional conference session. Several graduate students participated in the Imperial Barrel Award (IBA) short course, hosted by Shell Oil, which provided an experience that will prepare them for the competition beginning in February. The 2013 OSU IBA team will be Matt Hawrylak, Brian Tost, Joe Voyles, Joel Main, and Mike Murphy. The AAPG student chapter will be hosting monthly speakers from industry including Pete Mackenzie (MacKenzie Land & Exploration Ltd.) and Don Samples (Haliburton).

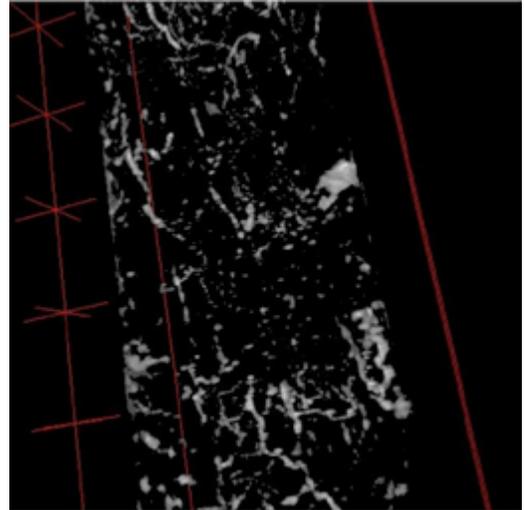


New X-ray computer tomography machine

Prof Ann Cook recently acquired a new X-ray Computed Tomography (XCT) machine to scan rock and sediment core up to 1.5 meters long. The XCT works just like a CT or CAT scanning machine you would receive at a hospital but is optimized for the higher densities we find in rocks. Derek Kackley, SES sophomore, and Edwin Buchwalter, SES senior, both worked with the XCT machine this summer on Arctic cores, deepwater Gulf of Mexico cores and local Ohio shales.



Derek Kackley, SES sophomore, prepping the new X-ray Computed Tomography (XCT) machine to scan an Arctic sediment core from Byrd Polar Research Center.



A 3D rendering of iron sulfide mineralization in bioturbation tubes found in a Gulf of Mexico deepwater core. Scan and processing by Edwin Buchwalter.

Expedition studies Silurian of Western Estonia

During the Summer of 2012, the National Geographic Society funded a joint Ohio State University and College of Wooster expedition to study the Silurian of western Estonia. Here is the field crew in Tallinn on the last evening prior to flying home: left to right- Jonah Novek (COW), Jeff Thompson (OSU), Bill Ausich (OSU); Mark Wilson (COW), Richa Ekka (COW), Alyssa Bancroft (OSU), and Mark Peter (OSU).

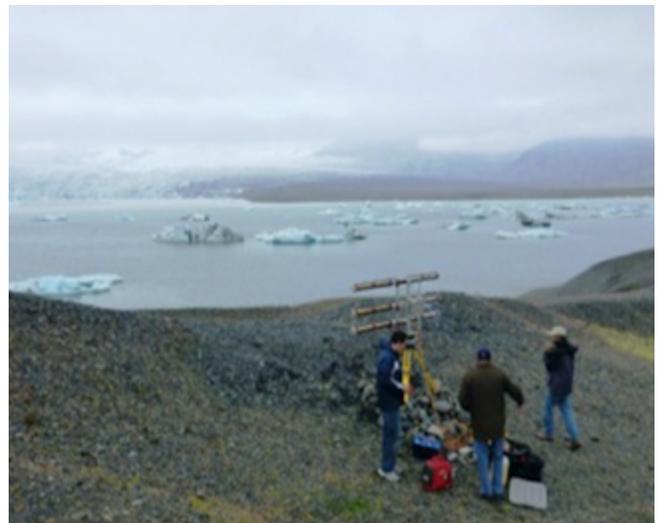


Campaign studies marine-terminating outlet glaciers

In August, Santiago de la Pena, a Byrd Postdoctoral Fellow in Prof. Howat's research group, participated in a five-week campaign in Greenland and Iceland to test new methodologies to measure the dynamics of marine-terminating outlet glaciers. He joined collaborators from the University of Southern Florida and University of Alaska, Fairbanks. The first leg of the campaign occurred at the terminus of the Jakobshavn glacier, in western Greenland. Jakobshavn is one of the fastest flowing glaciers in the world, and produces around 10% of all Greenland icebergs. The second leg was undertaken at Breidamerkurjökull, an outlet glacier of the larger Vatnajökull ice cap, located in southern Iceland. A Ku-band, ground-based radar interferometer was deployed overlooking the calving front of the glaciers. The radar permits derivation of surface topography, from which high-resolution digital elevation models can be obtained, and measures ice velocity with sub-cm scale accuracy. Low-cost, "expendable" GPS receivers, developed by the Howat research group, were deployed to validate radar measurements, and an ocean profiler that measures salinity and temperature was also used in the Breidamerkurjökull area. The new techniques will greatly improve our understanding of the dynamics of marine-terminating glaciers, and will shed light in the role of warming ocean water in glacier acceleration.



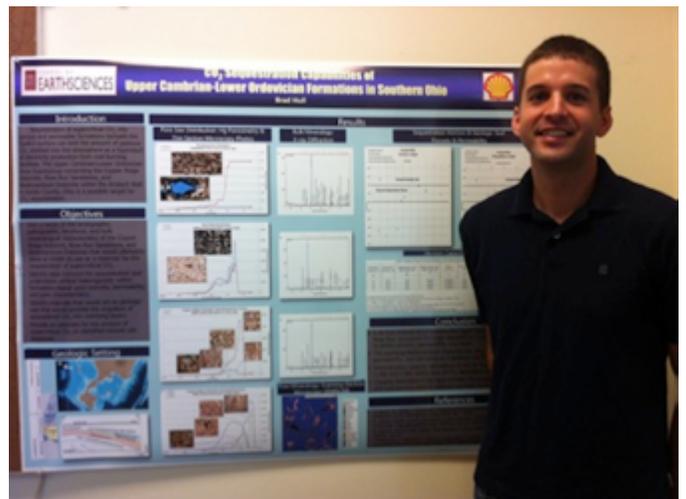
The field team at camp with the radar array to the left and the Jakobshavn Glacier, west Greenland, in the background. This glacier is suspected of producing the iceberg that sank the Titanic.



Setting up the radar at Breidamerkurjökull, Iceland. The front of the glacier is in the upper left. New, robotic oceanographic sensors were tested in the iceberg-filled lagoon in the front of the glacier.

Summer 2012 B.S. graduate goes to France for training

Summer 2012 B.S. graduate Brad Hull reports he's on his way to Paris, France, for training by Schlumberger as a mud-logging field engineer. Brad joined Schlumberger in August 2012 and he's already received training in a variety of fields, including how to escape a submerged helicopter fuselage. Brad expects to be living out of a suitcase for the next several years as he travels the world for training and mudlogging. He hopes to come back to Ohio State for Schlumberger recruiting trips as part of his travels. Brad is excited about all the possibilities for his future in the energy industry. In the photo below, Brad is shown with his 2012 Shell Undergraduate Research Experience poster.



Svalbard workshop on tidewater glaciers

Ph.D. candidate Ellyn Enderlin from Prof Howat's group recently attended a workshop on tidewater glaciers held on the Polish research vessel Horyzont II by the International Arctic Science Committee in Svalbard, Norway. The goals of the workshop were to promote collaboration between early-career and senior researchers studying tidewater glaciers and to identify research challenges and current knowledge and data gaps for observations of tidewater glacier behavior. Additionally, the workshop focused on bringing together field observers with numerical modelers to promote the collection of field data that can be used to better constrain numerical modeling of glacier flow. A short executive summary of the workshop will be published in an EOS article later this year. Left: Hiking to Hansbreen: the most well-studied glacier in Svalbard. Right: Looking-out across a crevasse field at Tunabreen, Svalbard.



Brevia

Prof Lonnie Thompson has won the 2012 “Friendship Award” from the People’s Republic of China. The award-giving ceremony honors contributions and dedication to China’s economic construction and social development on Sept. 27th to 30th in Beijing, China. The award is for “achieved excellent success through hard work and the winning the appreciation and respect of your Chinese colleagues.” The invitation was for Prof Thompson and Prof Ellen Mosley-Thompson (Geography) to receive the award and to attend a state banquet in celebration of the 63rd anniversary of the founding of the People’s Republic of China. Congratulations, Lonnie!

Alumnus Tom Eggert, has moved to principal analyst-reservoir characterization, Quantum Reservoir Impact, Houston. He was previously senior geological adviser Occidental Oil and Gas, Houston.

Prof Dave Cole is attending the Sloan-funded Deep Carbon Observatory (DCO) semi-annual Executive Committee meeting in Berlin. Dave gave an overview of the DCO Deep Energy Directorate, of which he is the Chair.

We end with a photo contributed by Prof Emeritus Jim Collinson: pictured are alumnus Don Boyd '50 and Prof Collinson looking at Proterozoic stromatolites in the Snowy Range west of Laramie. Don is Emeritus Professor at the University of Wyoming and was at OSU's field camp in 1949 with many other illustrious alumni.

