



Downhole logging and core petrophysics









Sarah Davies
ESO logging and core petrophysics
sjd27@le.ac.uk

















Petrophysics Staff Scientists & Petrophysicists

Expertise in downhole logging & core petrophysics programs

Dedicated equipment for core logging & discrete measurements

Data calibration & quality control

Evaluation & interpretation of these data





EPC activities as part of the ECORD Science Operator



- Preparation for upcoming expeditions
- Post-expedition activities
- Capability development and training for IODP MSP Expeditions
- Other key activities, including education & training















Logging activities for Mission Specific Expeditions



Time

Expedition Planning

Offshore Expedition

Pre-Onshore Onshore Expedition

Postexpedition follow up









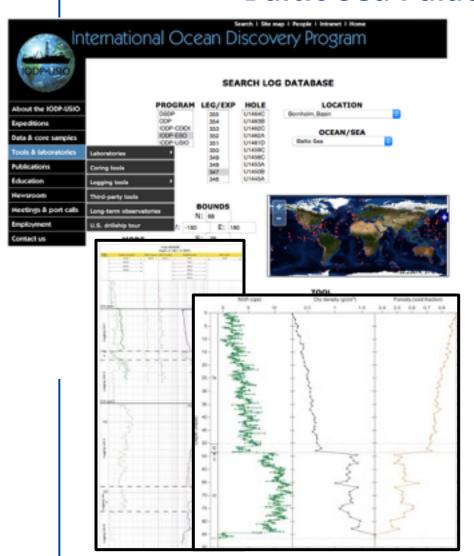






Expedition 347 – Baltic Sea Palaeoenvironment





 EPC staff prepared expedition logging data for archiving in the IODP legacy database hosted by the Lamont Doherty Earth-Observatory

 Petrophysics Staff Scientist attended second post-cruise meeting, September 2015





Preparation for IODP MSP Operations





- Bespoke Techlog training from Schlumberger
- Software training in fundamentals of Petrel
- EPC Logging deployment training, Montpellier
- Offshore survival training
- MSCL training at Geotek Ltd
- Radiation safety training





Capability development

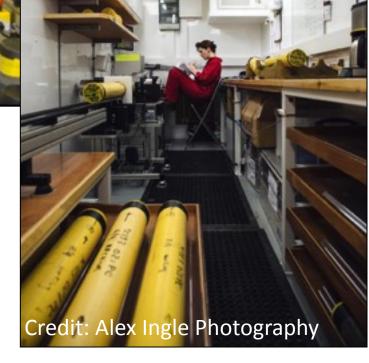


Refurbishment Offshore Petrophysics Container



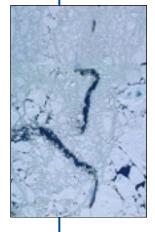
- Extended Standard MSCL-capability
- Maintains option for second 'fasttrack' MSCL (MSCL-152)





Mission Specific Expeditions















ACEX Exp 302

Tahiti Exp 310

New Jersey Exp 313 Chicxulub Exp 364

GBREC Exp 325

Baltic Exp 347

Atlantis Exp 357























Expedition 357 – Atlantis Massif





 EPC worked closely + BGS & MARUM for downhole logging tools development for seabed rockdrill deployment

 EPC logging engineer for the RD2 test cruise (August 2015) offshore West of Scotland.

Two training sessions for ANTARES tools, Bremen (May & September, 2015)

ANTARES logging tool test deployments from RD2 at test BGS borehole, Edinburgh (October 2015)



Expedition 357 – Atlantis Massif





 Standard MSCL and 'fast-track' deployed

Pre-onshore phase: NGR & through-liner 360-degree digital line scans

Onshore Science Party IODP measurements





Expedition 364: Chicxulub K-Pg Impact Crater





- ESO Petrophysics Staff Scientist attended Merida Meeting, Mexico
- EPC personnel developed logging requirements with the ESO operations manager, co-chiefs & logging/VSP partners
- Permitting for the radioactive source for the Standard MSCL was ongoing throughout 2015-2016
- Shipping and mobilisation



Expedition 364: Chicxulub K-Pg Impact Crater















EC®RD
Science Operator

INSTITUTE FOR GEOPHYSICS
Understanding How Worlds Work



Downhole Logging





- A first: EPC's stackable ultra-slimline tools used on IODP MSP expedition
- 5.8 km high-quality wireline open hole log data collected
- 3 phases of logging & VSP experiments





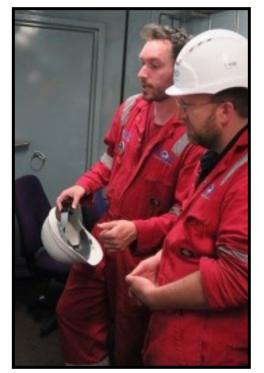


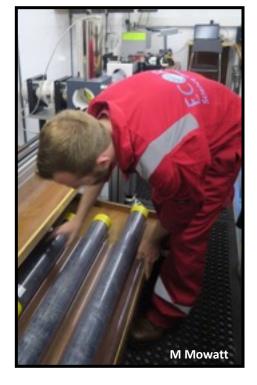
Multi-Sensor Core Logger (MSCL)





- Ephemeral properties (magnetic susceptibility, resistivity & density)
- A first: EPC took natural gamma radiation measurements offshore using extended capabilities











Education, Training & Outreach



Department of Geolog

ECORD Distinguished Lecturer Programme

Reconstructing Palaeo-Circulation: Reading sediment drifts with the aid of IODP information

Tuesday 5 May 2015, 4.00 pm

Dr. Gabriele Uenzelmann-Neben













BSRG Petrophysics Weekend



Sponsored by













Petrophysics Teaching





First ECORD Summer School in Petrophysics



June 26 - July 1, 2016

Staff from EPC, wider international logging consortium & industry

EPC Leicester lead successful bid

30 participants from institutions in 11 countries



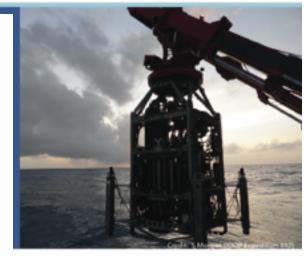
ECORD Summer School Petrophysics

26 June to 1 July 2016, Leicester, UK

















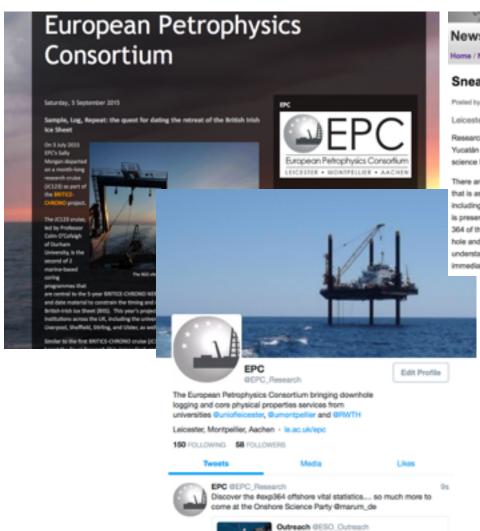






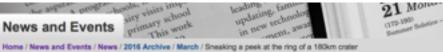


EPC: articles & social media



End of Expedition 364 - Offshore phase64chicxulubimpactcrater.wordpress.com/2016

05/29/end...



Sneaking a peek at the ring of a 180km crater

Posted by pt\$1 at Mar 23, 2016 01:55 PM | Permalink

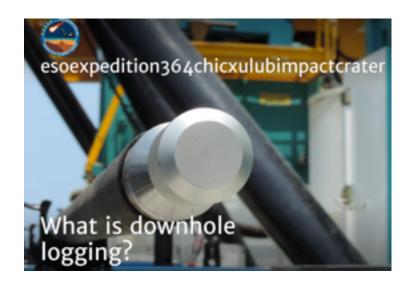
Leicester geologists will be traveling to Mexico to learn more about the ancient Chicxulub impact crater

Researchers from the universities of Leicester and Montpellier will be heading to the Yucatan Peninsula of Mexico to participate in a drilling expedition that addresses the science behind the Chicxulub impact structure.

There are few scientific topics that truly captivate the general audience; a meteorite impact that is associated with an extinction that wiped out most forms of life 66 million years ago, including the dinosaurs, is one of them. The scar of this collision, a 180 km diameter crater, is preserved beneath the Yucatán Peninsula of Mexico. In April and May 2016, Expedition 364 of the International Ocean Discovery Program (IODP) will attempt to drill a 1.5 km deep hole and recover samples from the Chicaulub crater. Data collected will improve our understanding of the physical, environmental and biological processes involved during and immediately after this dramatic event.



Equipment being loaded on the L/B Myrtle. 6Sally Morgan, Leicester

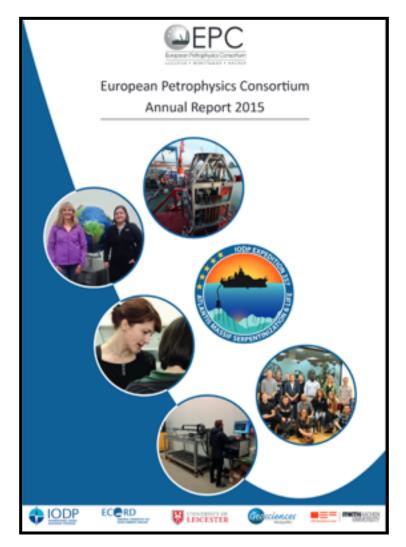








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Expeditions



Expedition Planning

Offshore Expedition

Pre-Onshore Onshore Expedition

Postexpedition follow up

X357

X364

#813

#708

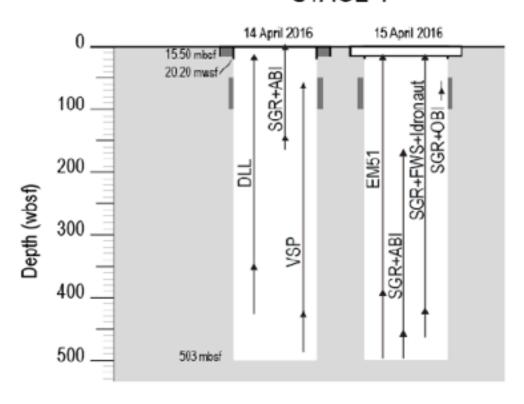




Logging



STAGE 1







Logging



