Geopressure 2020: Managing uncertainty in geopressure by integrating geoscience and engineering

25-26 March 2020

Top floor of Calman learning Centre
Durham University, Durham, UK

CONFERENCE PROGRAMME

Day One	
08.30	**Registration**
09.00	**Welcome**
	Session One: Overpressure
09.10	**Tracing the history of geopressure and its prediction** Richard Swarbrick, *Swarbrick GeoPressure Consultancy Limited*
09.30	**Compaction and Pore Pressure Prediction in Different Tectonic Environments** Peter Flemings, *The Jackson School of Geosciences at the University of Texas*
09.50	**Jasmine: The challenges of unlocking infill wells in a variably depleted HPHT field** Brian MacLeod, *Chrysaor*
10.10	**Gas Response and Overpressure Magnitude in Tight Formations: Elgin-Franklin Experience** Gareth S. Yardley, *Total* **Overburden Pressure Data Interpretation of the Elgin-Franklin Cluster, Central North Sea** Leon Barens, *Total*
10.40	**Break**
	Session Two: Generating mechanisms of overpressure
11.10	**Evidence of pre-salt pressure recharge from fluid escape features** Christopher Kirkham, *University of Oxford*
11.30	**Mechanisms generating fluid overpressure at the trench of subduction zones** M.A. Nikolinakou, *The University of Texas at Austin*
11.50	**Identification and Mitigation of Lateral Pressure Transfer in the Shallow Section of a Deepwater Exploration Well: A Case Study from the Gulf of Mexico** Marshall Sundberg, *ExxonMobil*
12.10	**Pore Pressure Prediction as an Integrated Cross Discipline Approach in Green Field Exploration: 1) Assessing all Scenarios** Yury Gorbunov, *Shell* **Pore Pressure Prediction as an Integrated Cross Discipline Approach in Green Field Exploration: 2) Rock Property Modelling for Pore Pressure Prediction and Basin Modelling** Ruarri J. Day-Stirrat, *Shell*
12.40	**Poster Introductions**
13.00	**Lunch**
13.30	**Poster Session**

	Session Three: PPFG - operational geology
14.30	**A Discussion of Accuracy and Uncertainty in Pore Pressure, In Situ Stress and Fracture Gradient Estimation during Exploration and Production** Tony Addis, *Addis & Yassir FZ LLC*
14.50	**Managing Pressure Uncertainty – Effect on Well Planning, Design and Drilling** Folake Odesanya, *Woodside*
15.10	**The Value of Downhole Temperature Response for the Early Kick and Thief Zones Detection in HPHT Naturally Fractured Carbonates Reservoirs** Juan Almeida, *Baker Hughes*
15.30	**3D PP and Geomechanics: Work Smarter and Faster Integrating Geoscience with Machine Learning** Sam Green, *Ikon Science*
15.50	**Break**
	Session Four: Overpressure worldwide and reservoir quality
16.20	**Pore and Fracture Pressure Results of High Pressure Drilling Campaign in Niger Delta** Raghu K. Chunduru, *Shell*
16.40	**Influence of Pore Pressure and Effective Stress on Quartz Cementation in Sandstones: Evidence from North Sea Fulmar and Gulf of Mexico Wilcox Sandstones** Olakunle J. Oye, *Durham University*
17.00	**Reservoir Quality in Overpressured Submarine Fan Systems of NW Borneo Deepwater Fold-Thrust Belt** Sudirman Dawing, *Durham University*
17.20	**Discussion**
	Finish
18.30	**Conference Dinner at Lumley Castle**

Day Two	
08.30	**Registration**
09.00	**Introduction**
	Session Five: Geopressure Case Studies
09.10	**Origin of Overpressure in Offshore Suriname and Implications for Pore Pressure Prediction** Mark Tingay, *Petronas*
09.30	**Case study on the Tubular Bells -Kodiak basin Miocene sediments with learnings from the recently drilled Esox and Oldfield wells** Matthew Reilly, *Hess*
09.50	**Overpressure development and uncertainty analysis on Western Mediterranean evaporites** Michael Stanley Dale, *National Oceanographic Centre*
10.10	**Pressure Prediction in Unloaded (Unconventional) Basins. Case Study: Delaware Basin** Landon Lockhart, *The University of Texas at Austin*
10.30	**Break**
	Session Six: Complex settings of geopressure

11.00	**Dealing with pore pressure in complex stress regimes** Federica Ferrari, *Eni*
11.20	**Impact of tectonic uplift-erosion on geopressures: an example from Andaman sea** Vincent Delgorgue, *Total*
11.40	**Primary and secondary overpressure generation mechanisms in the North Alpine Foreland Basin, SE Germany** Michael C. Drews, *Technical University Munich*
12.00	**Sub-salt Pore Pressure Modeling from Basin-Scale Plumbing and Sealing Elements** Matt Legg, *Shell*
12.40	**Integrated coupled workflow for drilling mechanics derived pore pressure and geomechanical predictions** W.A.H. Lekens, *Geoprovider AS*
13.00	**Lunch**
13.30	**Poster Session**
	Session Seven: Geomechanics and modelling of Geopressure
14.30	**Getting more value & understanding from mud hydrostatic pressures for well execution** Toby Harrold, *Repsol*
14.50	**TBC**
15.10	**Overpressure in The Baram Delta Requires Practical Solutions for Well Design and Drilling** Ismatul Hani Shada Bt. Idris, *Geomechanics and Pore Pressure Group, EGRS, PETRONAS Upstream*
15.30	**Geomechanics Challenges and Lessons from Planning and Drilling High Angle Wells** Alexandre R. Saré, *BP*
15.50	**Break**
	Session Eight: Concluding session
16.20	**Overpressure at the Macondo Well and its impact on the Deepwater Horizon blowout** F. William M. Pinkton (Peter Flemings presenting), *University of Texas at Austin*
16.40	**Discussion Session**
17.20	**Closing remarks**
17.30	**Finish**

Posters
Case study exploration well with steep pressure ramp/narrow operating MW-window: RT-PP interpretation, verify pre-drill model with observations from execution phase Oliver Knoop, *OMV E&P*
Fracture Pressure, Leak-Off Tests and Poisson's Ratio Richard W. Lahann, *Indianna University*
Is it useful to estimate hydrocarbon column heights from seal capacity? Richard Swarbrick, *University of Durham and Swarbrick GeoPressure*
Detection of overpressure in Tertiary sediments of Panna, western India – Study from offshore exploratory wells Souvik Sen, *Geologix Limited, Mumbai*
Challenges in PMCD Drilling and an Innovative Solution: A Case Study of Carbonate Drilling in Central Luconia Chee-Kiong Ngu, *Shell*
Reducing Uncertainty in Overpressure Prediction in the Norwegian Barents Sea Guy Markham, *Markham Geopressure Services*
Enhanced pore pressure prediction Glyn Richards, *Rockfield*
Managing uncertainty in pore pressure prediction Giulia Gallino, *Eni*
The effect of an unpredicted high pore pressure ramp on wellbore instability of an appraisal well. A case study from offshore Niger Delta. Nader Fardin, *PetroVision Energy Services*
Calculating loading and unloading contibutions to overpressure by applying effective stress-velocity relation: the case study of Pekawai area, southern edge of Kutai Basin Agus M. Ramdhan, *Department of Geology, Institut Teknologi Bandung, Indonesia*
Continuous Learning in Pore Pressure Prediction for Well Planning in the Columbus Basin, Offshore Trinidad. Avinash Ramroopsingh, *Shell Trinidad and Tobago Limited*
Linking multiphase basin tectonics and pore fluid pressure evolution Sean O'Neill, *Durham University*
Experimental rocks: role of temperature and pressure for understanding reservoir quality of sandstones Dimitrios Charalfti, *Durham University*
Pliocene-Pleistocene depressurization in North West Fold Belt, Papua Basin, implications to pore pressure compartmentalization and hydrocarbon accumulations Binh Nguyen, *JX Nippon*
Recognising the importance of quantifying and correcting for Total Organic Carbon (TOC) to reduce uncertainty in pore pressure prediction Sam Green, *Ikon Science*
An approach to understand seismic amplitude response to overpressure in deeper plays using end-member shale property substitution at shallow targets: A case study Ogagarue, Difference Odeyovwi, *Federal University of Petroleum Resources Effurun, Nigeria*
Analysis of the California oil and gas idle well database David H. Shimabukuro, *California State University*
A Review of Industry Best Practice in Real-Time Pore Pressure Analysis Mark Tingay, *Petronas*
Integration of Basin Modelling, Drilling Events Based Interpretations, Well-Logging, and direct reservoir measurements for Analysis of overpressure and its generating mechanisms; A Case Study from the Gulf of Suez Basin Radwan, A. E., *Gulf of Suez Petroleum Company*
Know More about the Unknowns by Integrating Pore Pressure Inputs for Exploration Derisking Sanjeev Bordoloi, *Baker Hughes*

Integrated Pore Pressure Prediction in Complex Geological Settings Iftikhar Ahmed Satti, *University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan*
Capillary capacity estimation of mudrocks in exploration: Empirical workflow and validation using a case study Sara Martínez, *Repsol*
The Contribution of Thermophsyical Parameter as an Agent for Determine the Accurate Overpressure Mechanism. Case Study: West Baram Delta and Malay Basin Malaysia Kurniawan Adha, *Universiti Teknologi Petronas*
Coupling Seismic Pore Pressure Prediction with Geomechanical Modeling Maria A. Nikolinakou, *The University of Texas at Austin*
The Effect of Stress and Lithology on Mudrock Compaction and Lateral Stress Ratio Mark Zablocki, *Tufts University, UT GeoFluids*