Chapter Meeting – December 2026



JFES
Japan Formation Evaluation Society

Chapter Meeting
December 8, 2026

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS

General information

Date & Time: Dec 8th, 2026, 1530-1700
Venue: INPEX HQ and online

Contents
- 1530: JFES introduction
- 1535: Presentation 1
- 1615: Presentation 2
- 1730: Icebreaker

Registration link (will close at Nov 30, 2026)
https://forms.cloud.microsoft/r/rD3ATDtS3E?origin=lprLink
No cost required for this chapter meeting, except for the icebreaker

Presentation 1 (English)

“Beetaloo Sub-basin Unconventional Shale Gas:
Measuring and Evaluating Critical Petrophysical Properties plus potential links to initial production performance”

Speaker: Peter Miklavs, Principal Petrophysicist, Technical Shared Services, INPEX Australia

Abstract:

The Velkerri Formation of the Mesoproterozoic Roper Group of the Beetaloo Sub-basin, Australia, contains a significant volume of shale gas resources. To estimate the original gas in-place, optimize horizontal well drilling and hydraulic fracturing design components, plus predict potential production rates, accurate petrophysical properties including kerogen volume, organic carbon volume, gas-filled porosity, matrix permeability, and gas adsorption are required. The evaluation and quantification of shale petrophysical properties is however challenging due to the complex nature of the shale rock. The organic kerogen pore system dominates at a nano-pore scale with free gas in kerogen pore space and adsorbed gas on the kerogen surface including the pore walls. The shale matrix permeability is typically in the nano-Darcy range which is potentially enhanced by the presence of natural fractures. Complicating this further is how shale pore pressure and stress has a significant impact on measured shale core permeability values. The quantitative evaluation of these critical shale reservoir quality (RQ) properties must also be supplemented with the evaluation of critical shale completions quality (CQ) properties given the requirement of effective hydraulic fracturing and horizontal well drilling to make gas recovery commercially viable. Critical CQ properties derived from the shale petrophysical evaluation include Youngs Modulus, Poisson Ratio and Brittleness. Recent exploration in the Beetaloo Sub-basin has increased the amount of shale gas relevant data available, including elemental capture spectroscopy logs, spectral gamma ray logs, nuclear magnetic resonance logs, dipole sonic logs, borehole image logs and tight rock core analysis data. Performing a multi-mineral and multi-fluid shale petrophysical evaluation integrating all relevant data allows for an accurate quantitative assessment of key RQ and CQ properties. These key RQ and CQ properties provide critical input into integrated reservoir modelling, shale sweet zone lateral drilling decisions, hydraulic fracture component design and potential initial production performance.

Presentation 2 (Japanese)

“Re-Evaluating Oil Potential in Residual Oil Zone Through Integration of Static and Dynamic Data in a Giant Carbonate Brown Field, Offshore Abu Dhabi”

Speaker: Hiroki Montani, Geology Group, Geoscience Unit, Technical HQ, INPEX

Abstract:

Recent studies have demonstrated that residual oil zones (ROZ) below the free water level (FWL) in carbonate reservoirs can contain significant volumes of oil that are not recoverable by conventional methods but may be mobilized through enhanced oil recovery (EOR) techniques such as CO2 or water injection. However, most previous work has treated the ROZ as a single, undifferentiated interval, without detailed characterization of sub-category or direct integration of dynamic data. In this study, we present an integrated workflow for evaluating the oil potential within the ROZ of a giant offshore carbonate field in Abu Dhabi, utilizing a combination of Movable Hydrocarbon Index (MHI), water saturation (Sw) logs, fluid identification (FID), wettability measurements, and pressure data. By correlating these datasets, we subdivide the ROZ with wetting phase and clarify the depth distribution of each. Our results reveal that significant intervals containing potentially movable oil exist below the current FWL, with their distribution closely linked to wettability transitions and pressure inflections. This approach enables more accurate net pay estimation and provides a practical basis for optimizing EOR strategies in heterogeneous carbonate reservoirs. The findings highlight the importance of integrating static and dynamic data for detailed ROZ characterization, moving beyond the limitations of previous studies.

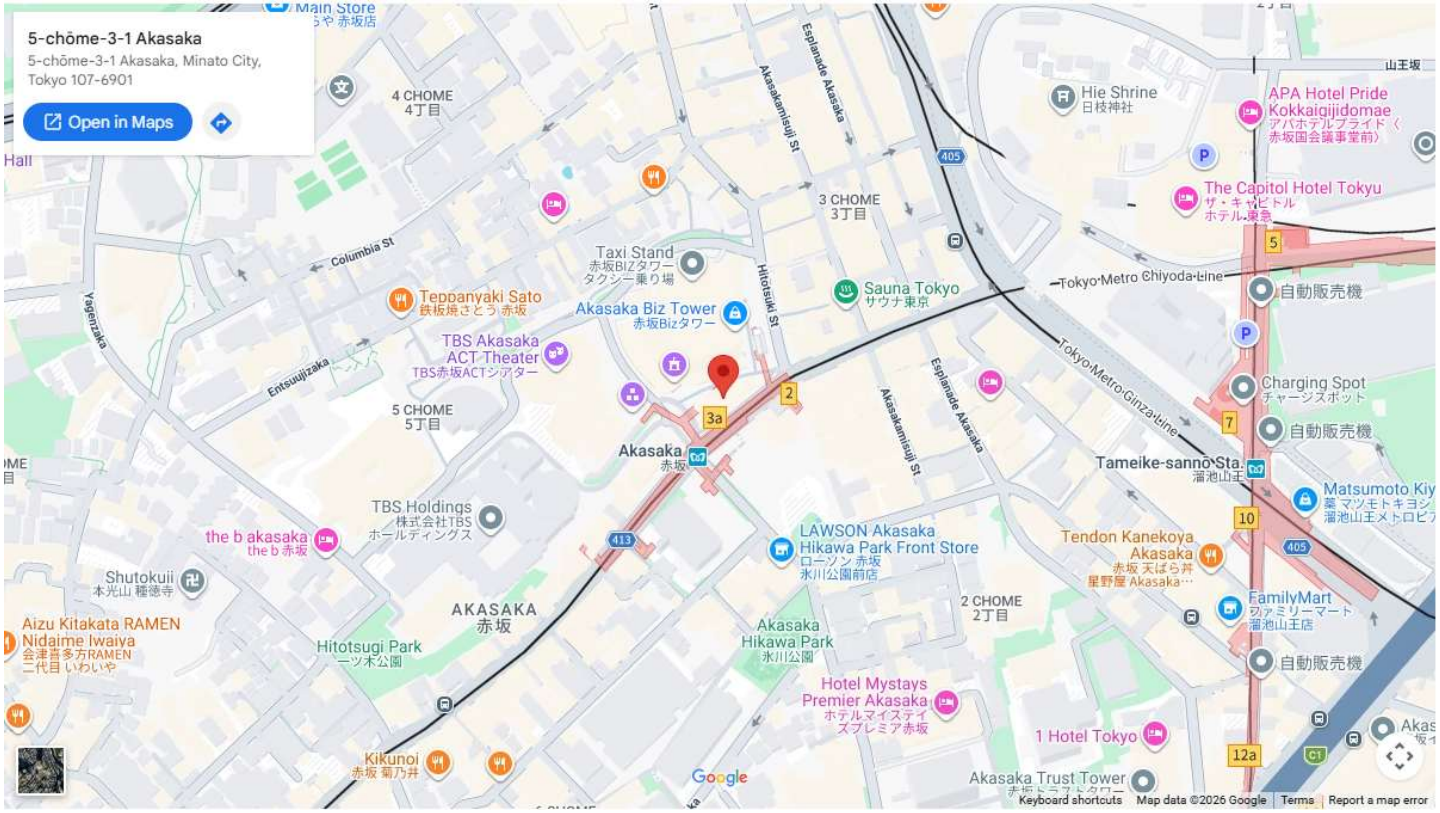
INPEX HQ Location

住所

東京都港区赤坂五丁目3番1号　赤坂Bizタワー

Akasaka Biz Tower 5-3-1, Akasaka, Minato-ku, Tokyo 107-6332, Japan

[access guide／akasaka biz tower]



By Subway

- Akasaka Sta. on the Tokyo Metro Chiyoda Line
  1 min. walk
- Akasaka-mitsuke Sta. on the Tokyo Metro Ginza Line
  5 min. walk
- Akasaka-mitsuke Sta. on the Tokyo Metro Marunouchi Line
  5 min. walk
- Tameike-sanno Sta. on the Tokyo Metro Ginza Line
  6 min. walk
- Tameike-sanno Sta. on the Tokyo Metro Nanboku Line
  6 min. walk