

## Best Paper of the 13th Formation Evaluation Symposium 2007

Best paper was selected from 23 papers presented at the 13th Formation Evaluation Symposium held at JOGMEC-TRC on September 27 - 28, 2007. For this selection, Board members reviewed every paper at the last board meeting and chose the awarded paper by the voting.. The testimonial will be given from JFES to the awardees later. The awarded paper is as follows:

### A New Idea to Estimate Interstitial Shaliness of the MacMurray Formation in Canada's Athabasca Oil Sands, Koji Kashihara, Takashi Tsuji (JAPEX)

<Reviews' comments>

1. In the previous year, the authors showed the way of using core photo to estimate sand quality (effective porosity and permeability). Also indicated improvements (reducing errors found when new wells are added) by using P-wave, S-wave and Density.

This year, the authors further pointed out the usefulness of using core photo to distinguish between interstitial clay and mudstone clasts and thin mudstone, which is difficult by using GR, or Neutron /Density cross plot. Finally the authors came up with Sand Quality evaluation in combination of GR, V(mudstone) and P-wave velocity. Certainly this work would contribute reservoir model improvement in conjunction with seismic. If authors continue to work on this subject, it will be very interesting to see the result.

Some notes: Authors indicated that litho-facies which comes from difference in depositional environment, that is affecting quality of sand. Often, there are difference in mineral compositions of clays that authors needed distinguish (interstitial clay and mudstone clasts and thin mudstone). I would be worth using natural GR spectroscopy, Photoelectric effect and cross plots of these (e.g. Pef vs Th/K, Rho(maa) vs Umaa) may appear in different points. If that's the case, they might give parameters to automate identify litho facies, thus giving same answers without going through Core photo analysis.

2. 本論文では、砂岩 (Sand Matrix) と頁岩 (Mudstone clast / thin mudstone) が共存する対象層において、砂岩の生産性 (SMQ:Sand Matrix Quality) を評価する手法について述べられている。本論の対象地域の様に、SAGD法による原油回収を実施する場合、スチームチャンバーの形成領域は砂岩の生産性に大きく支配され、原油の回収量そのものに直接的に影響するものであり、その精度の高い評価が要求される。砂岩の生産性に大きな影響を及ぼす要素として、砂岩中の粘度鉱物含有量 (Interstitial Shaliness) がある。

一般に、物理検層の結果を用いて評価されるShalinessは、Interstitial ShalinessとMudstone clast等砂岩とは独立して存在する頁岩の2つの影響を含んだものであり、筆者らの要求を満たすものではない。ここで筆者等はコア写真で明瞭に砂岩と頁岩を区別できる事に着目し、イメージ処理を行う事で対象区間のMudstone Volume (ある微小区間中のMudstone clast、thin mudstone等の含有率) を評価した。

このMudstone VolumeとGRのクロスプロットを作成し、100%シェールラインと、クリーンサンドラインを決定した。その上で、上記2本のライン間での相対的位置をInterstitial Shalinessとするとの定義が提唱された。

次に筆者等は、コアデータの実測値を用いて、上記定義によるShalinessと砂岩の生産性との関係を調べた結果、両者に相関が見られ、その正当性が確認された。また、Interstitial ShalinessとP波速度の間に良好な相関が存在する可能性が示された。

以上述べたように、本論文では油層評価において重要な要素である砂岩の生産性評価に関し系統的な手法がとられ、有益な結果を得ていること、類似した砂岩層の評価に適用できる可能性が高い技術であること、2点から、今回のシンポジウムのBest Paperに推薦する。

# Invitation to 63rd Chapter Meeting

We would like to announce that the forthcoming Chapter Meeting will be held as follows. Those who are interested in attending this meeting are asked to inform Ms. Shizu Kobayashi ([kobayasi@fuchinobe.oilfield.slb.com](mailto:kobayasi@fuchinobe.oilfield.slb.com)) **by Friday, March 14.**

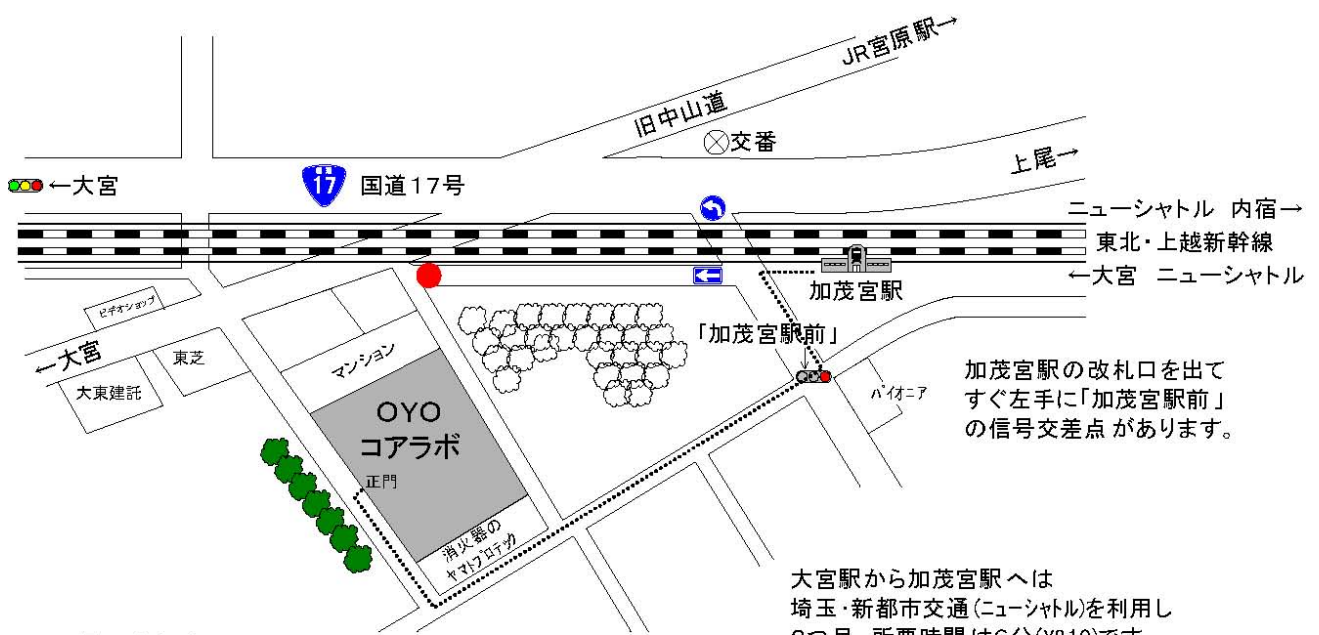
**Date:** Tuesday, March 25, 2008

**Time:** **14:00 – 15:00** Technical Presentations  
15:00 – 17:00 Laboratory Tour  
17:30 - Icebreaker (Yen 1,000; venue to be defined)

**Venue:** **Core Lab. Center** (map attached on the next page)  
**Oyo Corporation**  
1-66-2 Miyahara, Kita-Ku, Saitama,  
Saitama 331-0812  
Phone: 048-663-8611  
Fax 048-663-8618

## Presentations:

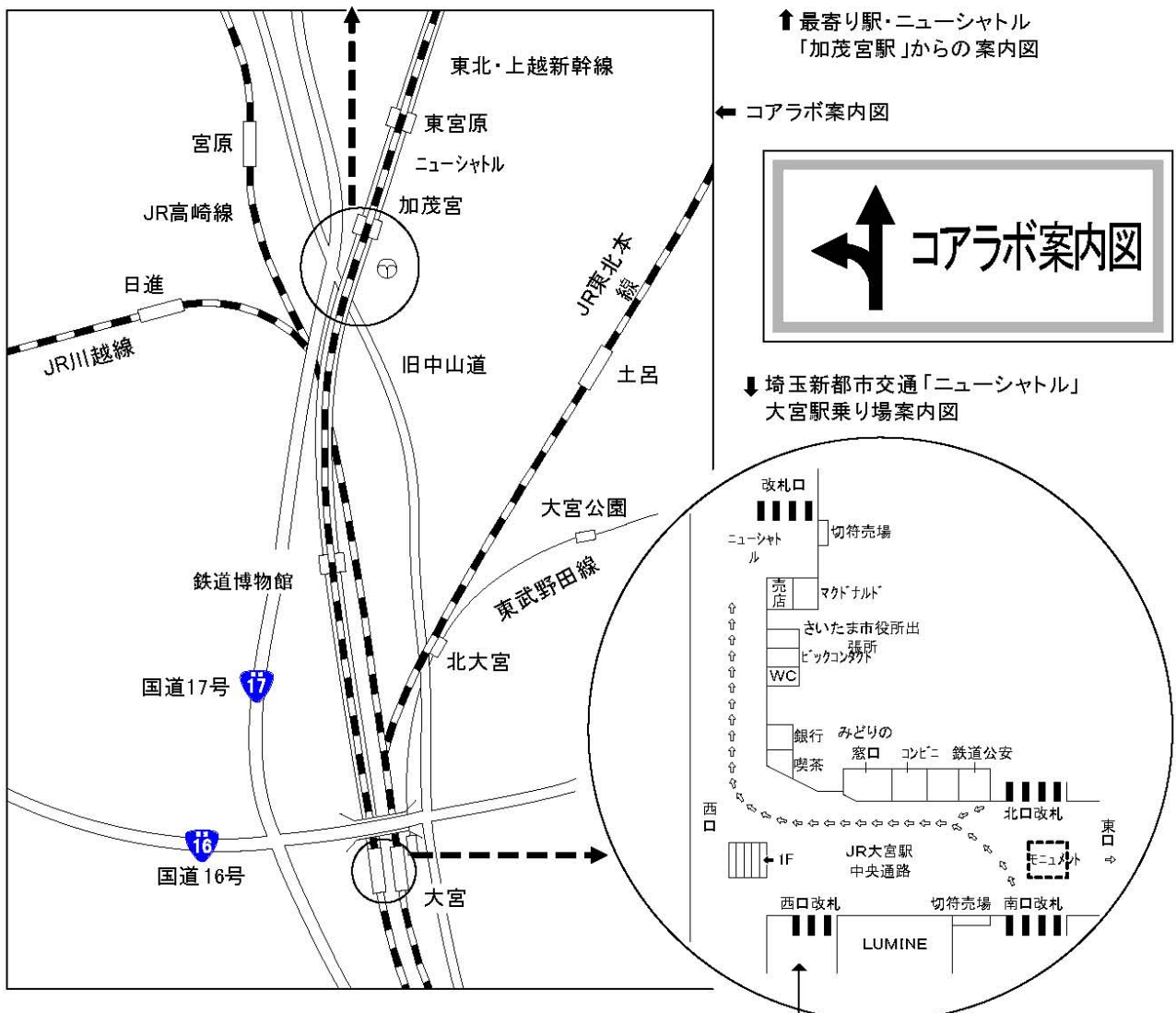
1. **"The relationship between seismic velocity and CO2 saturation obtained from the CO2 geological sequestration experiment"**  
(CO2地中貯留における弾性波速度と二酸化炭素飽和度の関係)  
by Hiroyuki Azuma, Oyo Corporation (東 宏幸)
2. **"Experiment of the permeability of sedimentary rock under low hydraulic gradient"**  
(堆積軟岩の低動水勾配下における透水試験について)  
by Takeshi Iwamoto, Oyo Corporation (岩本 健)



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すぐ左手に「加茂宮駅前」  
の信号交差点があります。

〒331-0812  
埼玉県さいたま市北区宮原町1-66-2  
TEL (048)663-8611  
FAX (048)663-8618

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「加茂宮駅」からの案内図

← コアラポ案内図



↓ 埼玉新都市交通「ニューシャトル」  
大宮駅乗り場案内図

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# Abstract Deadline Extended for SPWLA 2008 Joint Regional Technical Forum, SE Asia / Japan / Australia

The abstract deadline for the SPWLA 2008 JOINT REGIONAL TECHNICAL FORUM to be held on August 24<sup>th</sup> to 27<sup>th</sup>, 2008, has been extended to the end of March. The topic will be "RESERVOIR CHARACTERIZATION, CHALLENGES from ASIA-PACIFIC REGION. More paper submissions especially talking about local problems of Japan are encouraged.

For more details, please see: [http://www.spwla.org/events/2008\\_Bangkok.pdf](http://www.spwla.org/events/2008_Bangkok.pdf)

SPWLA JOINT REGIONAL PETROPHYSICAL TECHNICAL FORUM  
An event held in collaboration with FESI, FESM, JFES & FESAus Chapters



## SPWLA 2008 SE Asia / Japan / Australia Technical Forum

Reservoir Characterization - Challenges from the  
Asia-Pacific Region-cases from SE Asia/Japan/Australia

24 Aug – 27 Aug 2008, Bangkok, Thailand  
(24 Aug pm – Registration / Ice Breaker)

**CALL FOR ABSTRACTS**

Register online at [www.spwla.org](http://www.spwla.org)



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Courtesy Cambridge Carbonates

**SPEAKER SOLICITATION:** The Steering Committee seeks Abstracts from people who wish to present. Only abstracts will be published. Hence no formal technical paper is required. In addition to planned speakers, the Committee desires to attract participants with a diversity of expertise and experiences.

**Abstract Application Deadline : March 31 2008**

**Presentation Deadline : July 25 2008**

### RESERVOIR CHARACTERIZATION – CHALLENGES from the ASIA-PACIFIC REGION



#### CONFERENCE FORMAT

SPWLA Technical Forums are off-the-record Petrophysical discussions focused on a specific areas of interest. This Conference addresses reservoir challenges, practices, evaluations and solutions.

SPWLA Technical Forums are structured but informal. No papers or transactions are published. We encourage submission of work in progress or problems not yet solved. Presentations will typically be 20-30 minutes (including questions). In keeping with conference objectives and practice in other SPWLA-sponsored events, commercialism in speaker presentations will not be permitted.

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