

## Happy New Year to all SPWLA Japan Chapter Members!

We had another successful chapter year in 2003 with support from all the members.  
We hope to have another successful year in 2004!

The Japan Formation Evaluation Society (JFES) より新年のごあいさつを申し上げます。  
SPWLA日本支部が発足してはや9年が経過致しました。本年も皆様のおかげをもちまして、千葉での第9回検層シンポジウムも成功裏に終了し、よりたくさんの方々から最新の検層研究結果を発表することができました。今後とも国内における活動のみならず、本部及び各国支部との交流も積極的に図ってまいります。今後も益々、検層を利用される各分野の技術者の情報交換の場として積極的な活動を続けていきますので御興味のある方は是非ともご入会戴きたく、会員の皆様のご協力をお願い申し上げます。

松田繁美 - Secretary Board

## Announcement from the Secretary Board

### Best paper of the Ninth Well Logging Symposium

Best paper was selected from 19 papers presented at the Ninth Well Logging Symposium on September 25, 26<sup>th</sup> in 2003: Mr. Tatsuo Shimamoto (Teikoku Oil Co.)

The testimonial will be given to him later from JFES.

**Title :** Integration of seismic and petrophysical information for the 3D modeling of a carbonate reservoir  
By Tatsuo Shimamoto, Akira Kato, Hiroshi Fukagawa, Hiroki Arakawa (Teikoku Oil Co.)

#### Abstract :

This paper presents a comprehensive reservoir study using seismic information with pixel-based geostatistical techniques. This study has been performed on a carbonate reservoir located offshore West Africa. This field has fifteen wells in the northern region. The information of the wells reveals that our field comprises some productive areas that have ensured commercial production. In order to identify those productive areas in undeveloped region, especially southern portion of the reservoir, integration of the 3D seismic information into reservoir descriptions is indispensable. First, log data were correlated to core-measured porosity. Secondly, more than 20 seismic attributes were investigated to specify relations between petrophysical properties and seismic attributes. Two seismic attributes, instantaneous frequency and amplitude acceleration were found to have good relations with the porosity distribution at well locations. Our geological interpretation was able to account for the good correlation. Those two seismic data were utilized for the creation of soft data. Third, fine-scale geological models were constructed based on well data and the two seismic data by the Markov-Bayse algorithm. Finally, course-scale flow simulation models were generated by an innovative scale-up technique for history matching proposes.

## Invitation to 47th Chapter Meeting

We would like to announce that the forthcoming Chapter Meeting will be held as follows.

**Venue :** Schlumberger K.K. (Fuchinobe branch)

1st Floor, New Conference room

2-2-1, Fuchinobe, Sagamihara,

Kanagawa-ken

Tel (042) 759-2111

*(See the attached map)*

**Date :** Friday, February 6th, 2004

### **Program:**

16:00 Q-Borehole - Risk reduction using superior borehole seismic data  
by Emmanuel Coste (Schlumberger K.K.)

16:45 New Industry Sonic Measurement  
by Keith Schilling (Schlumberger K.K.)

*\* Presentations in English*

17:10 A tour of the factory

17:30 Snacks Buffet

### **Abstract of the topics**

**Title :** Q-Borehole - Risk reduction using superior borehole seismic data

**Speaker :** Emmanuel Coste (Schlumberger K.K.)

**Abstract :**

The value of any oilfield technology can be assessed in terms of its ability to reduce risk. Geoscientists working on field development must identify promising targets within reach of existing wells. Therefore, an important risk reduction technique is borehole seismic imaging. The foundation for high-quality seismic data from the borehole lies in some newly available wireline tools that consist of up to 40 lightweight, multicomponent sensor modules whose sensor packages are acoustically decoupled from the main tool body. High-resolution VSP images from these tools illuminate targets and drilling hazards around the well path. The growing use of 3DVSP imaging has demonstrated the value of including a third dimension in acquisition and processing. Successful application of such advanced techniques depends on extensive planning, modeling, efficient acquisition operations and processing. This is the Q-Borehole concept.

**Title :** New Industry Sonic Measurement

**Speaker :** Keith Schilling (Schlumberger K.K.)

**Abstract :**

New acoustic technology provides the means to expand the markets of geomechanics and petrophysics and builds on the existing market of geophysics. Our clients have asked about completion design and also about rock mechanics. We have responded with a new sonic measurement that will further our advancement towards 3D characterization of sound propagation around the borehole. The single most important output from acoustic tools is DTc and DTs. Prior to this new tool, some form of slowness time coherence was utilized to compute the slowness with coherence being an indicator of quality. BestDT uses a HI, homogeneous isotropic, computational model. Through years of research we have come to find that these formations are not nearly as common as we believed.

Coherence does not do anything for diagnosing formations that are not HI. Analysis allows determination of formation types as well as the most accurate slowness available. Also, the delivery of answer products will be appropriate to whether the formation is homogeneous vs. inhomogeneous, isotropic vs. anisotropic. Our new products are delivered through predictable tool acoustics designed by computer simulation. Transmitter receiver spacing in previous generation tools could see past the altered zone (LSS) and thus attempted to provide an unaltered slowness measurement. A feature of MSIP TR spacing is variation from short to long enabling a radial monopole profile including Virgin compressional. This radial variation of compressional acoustic properties will benefit fracturing, sand control, perforating design, and pressure and sampling point selection. The wide frequency band feature also provides the benefit of better answers from dipole radial slowness. This will allow better formation strength analysis and reduce uncertainty from current models by an estimated order of magnitude! Ultimately, we expect this new sonic measurement will assist our clients in producing hydrocarbons more efficiently.

**[‘01-'02 Annual schedule of Chapter Meetings]**

*March 25, 2002 Japan Petroleum Exploration Co., Ltd.*

*June 2-5, 2002 43<sup>rd</sup> SPWLA Symposium in Oiso*

*Sep. 27, 2002 INPEX*

**[‘02-'03 Annual schedule of Chapter Meetings]**

*Dec. 4, 2002 OYO Tsukuba R&D Cente*

*Jan. 27, 2003 Mitsui Oil Exploration Co., Ltd.*

*March 31, 2003 Japan National Oil Corporation*

*May 26, 2003 Teikoku Oil Co., Ltd.*

*September 25-26, 2003 Technology Research Center, JNOC*

**[‘03-'04 Annual schedule of Chapter Meetings]**

*December 3, 2003 Japan Petroleum Exploration Co., Ltd.*

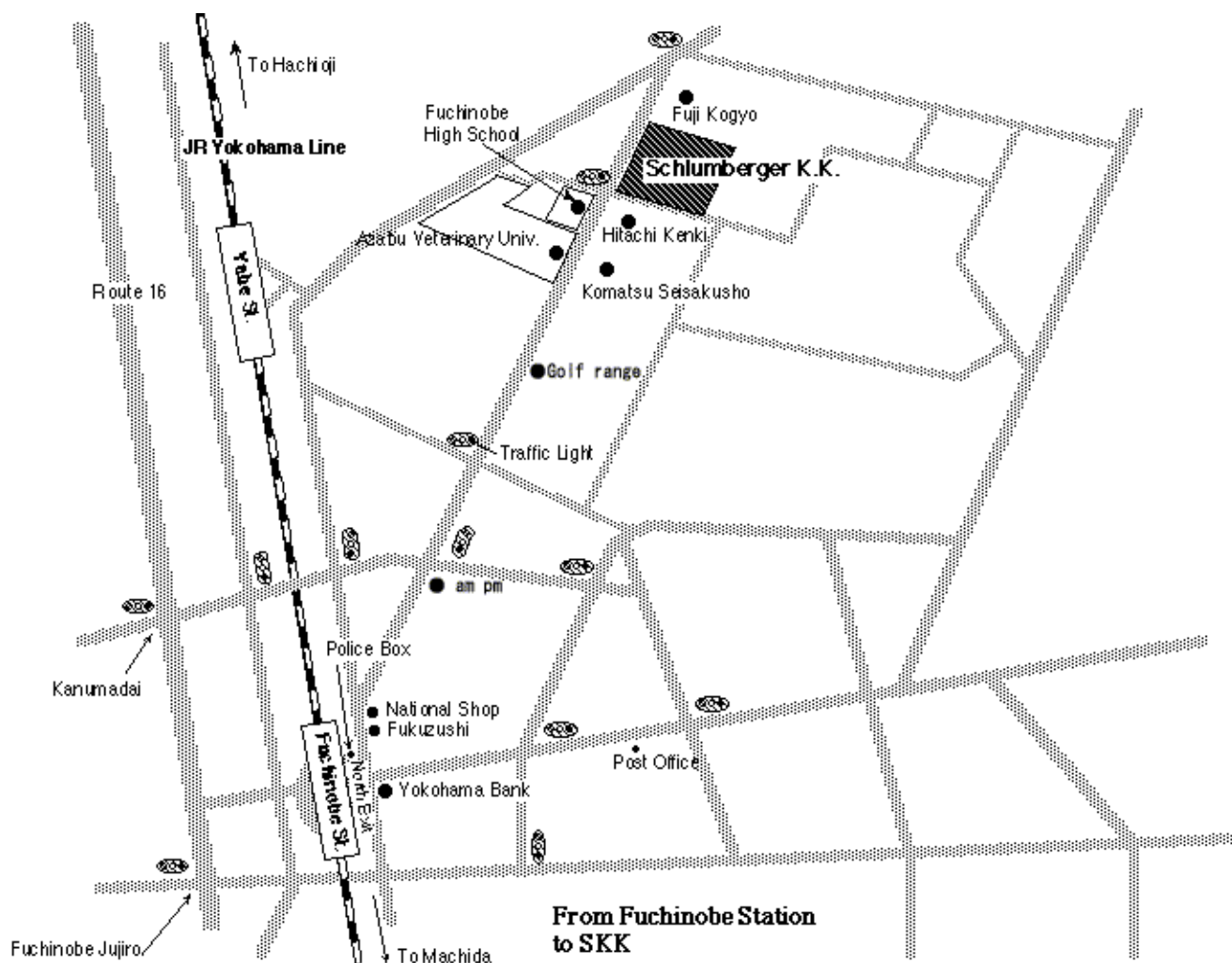
**Jan. 28, 2003 Schlumberer K.K.**

*March 31, 2003 INPEX*

*May 26, 2003 Mitsui Oil Exploration Co.,Ltd.*

*September 29-30, 2003 Technology Research Center, JNOC*

## シュルンベルジェ株式会社（淵野辺）への地図



### ◆ 電車の場合

< 横浜線 > 淵野辺駅 北口出口

\*場所は1階のNew Conference Roomとなります。

### **By Train:**

JR Yokohama line

Fuchinobe station (North exit)

15mins by walk

5mins by taxi

\*Room name: New Conference Room, 1<sup>st</sup> floor.