# SPWLA NewsLetter

SPWLA Japan Chapter

SPWLA Newsletter Contact: S. Shin Schlumberger GeoQuest e-mail: sshin@tokyo.oilfield.slb.com tel: 03-3431-0996 / fax: 03-3431-1779

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

We had another successful chapter year in 2002 with support from all the members. We hope to have another successful year in 2003!

SPWLA日本支部役員会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8年が経過致しました。皆様のおかげをもちまして、大磯での第43回 SPWLA国際シンポジウムも成功裏に終了し、国際的にも高い評価を得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いきます。日本支部の呼 び名も[The Japan Formation Evaluation Society(JFES)]と決定し、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**

### **Invitation to 42nd Chapter Meeting**

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

Venue : Mitsui Oil Exploration Co., Ltd. 12 Floor, Daikaigishitsu

> Hibiya central building 1-2-9, Nishi Shimbashi, Minato-ku, Tokyo Tel (03) 3502-5159 (See the attached map)

#### Date : Monday, January 27th, 2003

#### Program:

16:30 Processing Leaky-Compressional Mode from LWD Sonic Data in Shallow Ocean Sediments: ODP sites in Nankai Trough by Shinji Yoneshima (Schlumberger K.K.)

\* Presentations in Japanese

17:30 Snacks Buffet

#### Abstarct of the topics

## **Title :** Processing Leaky-Compressional Mode from LWD Sonic Data in Shallow Ocean Sediments: ODP sites in Nankai Trough

Speaker : Shinji Yoneshima (Schlumberger K.K.)

#### Abstract :

In 2001, we used the measurement of leaky-compressional (leaky-P) mode from LWD-Sonic data to obtain compressional velocity logs in shallow ocean sediments in Nankai Trough for ODP (Ocean Drilling Project). In shallow un-consolidated formations, the compressional velocity becomes close to the borehole fluid (mud) velocity or even becomes slower than the mud. In these special conditions, the traditional monopole source, which is operated with frequencies above 10 kHz, excites large amplitude fluid arrivals, which dominate compressional head waves and make the compressional measurements very difficult. In wireline sonic it is known that in these formations, a low-frequency source can excite the leaky-P mode with less fluid arrivals, which enables us to extract the compressional velocity. The leaky-P mode is a dispersive borehole mode with the phase velocity decreasing with increasing frequency, which propagates with the compressional velocity at low frequencies and the mud velocity at high frequencies. We used a wide frequency-band excitation in LWD-Sonic acquisition to excite the low-frequency leaky-P mode in very these slow formations. Both semblance processing and dispersion analysis by Prony's method showed the existence of the dispersive leaky-P mode in the data. We performed the standard semblance processing technique to obtain compressional velocities. In the processing, we used narrowband filtering to avoid dispersion in the processing band and corrected a dispersion bias based on theoretical modeling. The model includes formation parameters from log measurements and realistic tool structure to accurately predict the model dispersion. In this study, we processed LWD-Sonic data from three ODP sites, 1173B, 1173C and 808I using a commercial sonic processing program with optimized parameters and with dispersion correction. These dispersion-corrected LWD-Sonic processing results showed reasonable agreements with core velocity measurements.

#### ['01-'02 Annual schedule of Chapter Meetings]

March 25, 2002	JAPEX
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	Waseda University
May 26, 2003	Teikoku Oil Co., Ltd.
September 25-26, 2003	Technology Research Center, JNOC



#### ◆ 電車の場合

<三田線・目黒線・都営三田線> 内幸町駅 A4出口

又は

< J R山の手線> 新橋駅 北口

\*場所は日比谷セントラルビル三井石油開発株式会社内、12階の大会議室となります。