

# PETROLEUM GEOLOGISCHE KRING

KONINKLIJK NEDERLANDS GEOLOGISCH EN MIJNBOUWKUNDIG GENOOTSCHAP



PGK

<b>Secretary:</b> Mieke Kusters Shell EP Technology Applications and Research Phone / Fax: Postbus 60, 2280 AB Rijswijk E-mail: 070-3113265 / 070-3112980 <a href="mailto:m.kusters@siep.shell.com">m.kusters@siep.shell.com</a>	<b>Treasurer:</b> Jurry van Doorn Schlumberger Petr. Services C.V. Parkstraat 83, 2514 JG Den Haag Phone / Fax: 070-3105409 / 070-3105444 E-mail: <a href="mailto:doorn@the-hague.geoquest.slb.com">doorn@the-hague.geoquest.slb.com</a>
<b>Venue:</b> PGK's monthly lectures are held at the KIVI building, Prinsessegracht 23, Den Haag. Drinks are served from 5 PM; the lecture starts at 6 PM.	<b>Labels:</b> Last update October 11th, 1999
<b>Membership:</b> Please apply for membership by contacting the secretariat. Membership dues: Fl 30,-	
<b>Accounts:</b> VSB Bank: 88 65 82 733 (PGK, Den Haag)	Postbank: 4074482 (PGK, Den Haag)

## NOVEMBER 1999 NEWSLETTER

### NOVEMBER MEETING: COMBINED DPS/PGK MEETING NOVEMBER 17TH

For the first time in history the PGK and Delft Petrophysical Society will organise a combined meeting. The topic that will be presented is thought to be of interest to both PGK and DPS members.

C.R.Geel from Delft University of Technology will give a presentation on: **Enhanced log results through geological input: evaluating thin-bedded turbidite sequences**

He provided the following abstract:

Hydrocarbon-bearing beds thinner than 30 cm are difficult to identify on conventional well logs. Especially in the case of a regular alternation of sand and shale, as is the case in a classical Bouma turbidite sequence, it can be extremely difficult, if not impossible, to recognize individual sand or shale beds. Existing well log processing techniques like alpha-processing or deconvolution do not help very much in this respect. Log evaluation in thin-bedded low-resistivity pay sands is therefore cumbersome, as are the geological interpretation and correlation.

To overcome this problem a method was developed that distinguishes between sand and shale beds as thin as 5 cm, using an ordinary gamma ray (GR) log with a sample spacing of 0.5 ft as input. The technique is based on a number of assumptions and simplifications, the most important of which is that only two different lithologies contribute to the GR log: sand (no radiation) and shale (full radiation). The method utilises forward modelling of the GR log, so a large number of iterations is needed to invert the actual recorded GR log. To guide this process a global optimisation procedure (simulated annealing) is used.

The method was validated on several outcrops of thin-bedded deep water sandstones, where the GR logs were recorded using a hand-held GR tool. The technique was further tested on a thin-bedded turbidite reservoir from the Gulf of Mexico. The results indicate that the method can be used to improve the geological characterization as well as the wireline log evaluation of turbidite reservoirs.

### PGK BOARD MEMBERS v2k

Two of the PGK board members (Hans Klasen and Jurry van Doorn) have already served for two years and therefore a new vice-president and treasurer will need to be elected. The board are still looking for PGK'ers that are interested to take a position in the PGK board. Please express your interest before December 1<sup>st</sup> to one of the PGK board members or by e-mailing [M.Kusters@siep.shell.com](mailto:M.Kusters@siep.shell.com).

### **MEMBERSHIP DUES 2000**

All PGK members will receive an acceptgiro for payment of their 2000 membership dues together with the January 2000 Newsletter. Members receiving the Newsletter via e-mail will receive this acceptgiro in a separate letter. Those members that are still one or two years behind are requested to pay these outstanding dues themselves on either VSB Bank account 88 65 82 733 or Postbank account 4074482 (PGK Den Haag; Dfl. 30 for each year).

### **OTHER FORTHCOMING PGK EVENTS**

**December 8<sup>th</sup>** Professor F. van der Veen on history of the geosciences/geoscientists

**January 19<sup>th</sup>** Henk Visscher (Utrecht University): Fossil leaves as biosensors of paleoatmospheric CO<sub>2</sub> levels.

### **DECEMBER EVENT**

As usual the December presentation will be preceded by aperitifs from 17h00 onwards. After the presentation wines and other refreshments from popular fieldwork areas will be served in the bar.

Please register for this special event by contacting the treasurer Jurry van Doorn by phone 070-3105409, fax, e-mail ([doorn@the-hague.geoquest.slb.com](mailto:doorn@the-hague.geoquest.slb.com)) or ordinary mail before Saturday December 4<sup>th</sup>. The PGK cordially invites all sponsors, members without outstanding membership dues and those that apply for membership of the PGK.

### **OTHER EVENTS OF INTEREST TO PGK MEMBERS**

**November 19<sup>th</sup>** Staring Symposium, Maastricht. Costs: 40,- pp. incl. Excursion. Registration: Bureau KNMG P/a NITG-TNO Postbus 6012 2600 JA Delft tel: 015 2697006 fax: 015 256 4800 E-mail: [bureau@kngmg.nl](mailto:bureau@kngmg.nl)

**December 1<sup>st</sup>** Weber Symposium on Production Geology. Registration: Mrs. H. Zwiers; phone: +31 (0)15 2781423; Email: [H.H.M.Zwiers@ta.tudelft.nl](mailto:H.H.M.Zwiers@ta.tudelft.nl); mail: Department of Applied Earth Sciences Mijnbouwstraat 120 P.O.Box 5028 2600 GA Delft

### **MEMBER NEWS**

We have received applications for membership from **J. Verbeek** (NAM Assen). If no objections are received by the end of the next meeting he will be automatically elected a member of the society.

*The following companies are warmly thanked for sponsoring the PGK in 1999:*

*Amoco Netherlands B.V.- Argo Geological Consultants -  
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