

# PETROLEUM GEOLOGISCHE KRING

KONINKLIJK NEDERLANDS GEOLOGISCH EN MIJNBOUWKUNDIG GENOOTSCHAP



PGK

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## NOVEMBER 1997 NEWSLETTER

### FORTHCOMING PGK EVENTS

- Nov. 19** Cees van Oosterom End of Harvest Mode  
RWE-DEA
- Dec. 17** Speaker will be announced as soon as possible (Due to unforeseen circumstances this years December speaker Mr Guillocheau had to postpone his lecture on 'The Geology of French Wine' for December 1998)

### PGK NOVEMBER MEETING

The PGK **November** meeting will be held on **WEDNESDAY, November 19**, at 17:45 pm and will be preceded by aperitifs from 17:00 pm onwards. The lecture will be held at the KIVI building, Prinsessegracht 23, The Hague.

Cees van Oosterom of RWE-DEA will speak about " *Kotter and Logger Harvest Mode* "

#### Introduction

*The life of a modest oil field in the Dutch Sector is relatively short when compared to a gas field. Kotter started producing in September 1984 and Logger in August 1985. Kotter and Logger had a short period of climbing up to plateau. After few years decline did set in. With no further discoveries it was decided during 1991 to halt further exploration in the Netherlands and to harvest the Kotter and Logger oil fields.*

#### Mission

*The mission now became to maximize the remaining value of the producing assets Kotter and Logger and the exploration assets.*

#### The Challenge

*The challenge resulting from this mission was to reduce costs in a period where the operational costs normally tend to go up as equipment ages and the produced fluids become more cumbersome. At the same time operational risks were to be kept as low as was reasonably practical. The first steps taken included tailoring the organization towards harvesting Kotter and Logger. This meant: winding-up the Exploration department, trimming down the Engineering group, streamlining Accounting and Administration and other Service groups. Operations were empowered to a great extent to run their own affairs. This included setting-up and maintaining auditable maintenance systems, taking the lead in major repairs and engineering and executing modifications.*

#### Reservoir

*The reservoirs were reviewed one more time, which resulted during 1993 in KLAP (Kotter and Logger Acceleration Project). Recovery from the Vlieland reservoirs was optimized through increased offtake matched by increased water injection. A number of horizontal side tracks were also made in the Kotter Vlieland reservoir.*

### Motivation

After having gone through the dip of trimming the organization for the harvest mode, motivation of the work force was high as confirmed through ratings in Conoco's world wide surveys. Key to this was: open & direct communication, CNOc leadership workshops, empowerment, flexible multi-skill - self improvement approach, marketing of staff and a solid social plan. This year a shutdown of CNOc social plan was agreed with the Trade Union which comprises: extra rewards to stay until no longer needed and outplacement/job search.

### End Harvest

During 1996 an end date was set for the production from Kotter and Logger. The date was determined through calculating (on a risked bases) when Kotter and Logger would turn cash negative. A key to this was the projected lifetime of the ESP's/downhole completion and the expected crude oil price. In early 1997 this was reviewed one more time with the latest data in hand. Based on this the production shutdown was set for 1-1-98, to be followed by a 3 months period of decommissioning and abandonment. With the Staff Council, agreement was reached on a CNOc close down plan. Presently a collective dismissal permit has been obtained from the Labor Office.

### Kotter and Logger

During 1995 a detailed study was undertaken by CNOc and Reverse Engineering Ltd, from Manchester, U.K., to identify the various methods for removing the facilities and recycling them in accordance with the Dutch regulations. Detailed studies have been undertaken on abandoning the wells with the workover rigs in place, on decommissioning the facilities, on removing of LSA and on pipeline cleaning. Creative ways of how to remove the platforms have been studied also as part of the drive to sell and reuse these relatively new facilities. Extensive marketing efforts have also been undertaken to identify a suitable niche for reuse of Kotter and Logger.

### Conclusion

- 1) Workforce motivation can increase during a harvest period. It does offer excellent challenges for those who remain
- 2) It is harder than you think
- 3) Harvest requires creativity
- 4) Harvest is an excellent opportunity to add to full cycle economics

### MEMBERS NEWS

We have received applications for membership from **Dr R.H.W. Dethloff**, employed with VEBA Oil Nederland B.V., **Ir. J.H.J. Sinke**, **Mr Richard Baker**, employed with Wintershall Noordzee B.V, **Mr Simon Drel**, employed with Argo geological Consultants, **Mr and Mrs Huerlimenn** and **Mr M. Bonte**, student at the VU Amsterdam.

If no objections are received by the end of the next meeting they will automatically be elected member of the society.

### OUTSTANDING MEMBERSHIP DUES

As reported at the last AGM, there is a significant number of people who have failed to pay their membership dues. (some have not paid for 4 years)

After scrutinising the membership list and contacting several of the culprits, it turns out that most of them are not aware of the infringement and they also do not know that the PGK does not send reminders, hence individuals are themselves responsible to make the payment.

Within the next few weeks an effort will be made to contact the worst offenders but in the mean time all members are requested to check whether they have paid the appropriate amounts.

By mid December the membership list will then be "cleaned up".

### PGK ON THE WEB

Members with e-mail and **Eudora** (preferably running on a Macintosh) may also receive the newsletter digitally from the following address **montijn@nitg.tno.nl**. EudoraLight can be obtained free from the following site: <http://lorien.qualcomm.com/quest/commercial.html>. The PGK has a new home page on the Web. The address for those interested is: <http://www.wak.tn.tudelft.nl/~pgk/index.html>. Many thanks go to Frédéric Verhelst and Aart-Jan van Wijngaarden of the Centre for Technical Geoscience, LSA, Fac. of Applied Physics, Delft University of Technology.

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## FORTHCOMING PGK EVENTS

- Dec. 17** Salomon Kroonenberg The Caspian Sea: Oil, Water and Vodka  
Fac. of Applied Earth Sciences, TU Delft  
**Jan. 21** Visit Museon, lecture by A. Schulp, guided tour.

## PGK DECEMBER MEETING

The PGK **December** meeting will be held on **WEDNESDAY, December 17**, at 17:45 pm and will be preceded by aperitifs from 17:00 pm onwards. The lecture will be held at the KIVI building, Prinsessegracht 23, The Hague.

Salomon Kroonenberg of the TU Delft, Professor at the Faculty of Applied Earth Sciences, will speak about *The Caspian Sea: Oil, Water and Vodka*

*The Caspian Sea is one of the most promising oil and gas-producing areas in the world. According to a recent estimate the current oil reserves are around 200 billion barrels. Since the Caspian Sea became a closed basin in the Messinian, its sea level has behaved independently from eustatic sea-level changes. Oscillations from 75m above and 80 m below present-day sea level have occurred. In modern times sea level rose by 15 cm per year, a hundred times the eustatic rate for the past century. This has a number of important consequences.*

*In the first place, many fields, especially in the Southern Caspian produce from the Mid-Pliocene Productive Series and Red-Coloured Sands, the architecture of which cannot be properly understood without taking into account the much more capricious behaviour of Caspian Sea level.*

*Furthermore, recent rapid sea-level changes, a 4 m fall from 1929-1977 and a 3 m rise from 1978-1995, are a hazard for both onshore and offshore production and have enormous environmental and economical consequences, especially as predicting future trends is still impossible.*

*The positive side is that the vicissitudes of the Caspian Sea can help us to understand how sedimentary systems such as barriers and delta systems react to sea-level change: it is the best natural laboratory to test the assumptions from sequence stratigraphy, as examples from the Dagestan barrier coast and the Volga delta show.*

*Caspian sea-level changes are attributed to two different factors. The first one is climatic in nature. There are large and systematic oscillations in the amount of water the Volga river is discharging into the sea. At the other side of the Caspian water balance, changes in cloudiness above the sea itself occur, which regulate evaporation from the sea surface. Both climatic factors in turn are related to changes in the global atmospheric circulation system, especially in preferential jet stream configurations.*

*But there is a growing interest in the neotectonic aspects of the question as well. Repeated levellings along Caspian shores indicate secular accelerations, retardations and even inversions in uplift and subsidence rates in time scales of years and even months. These seem to be in phase with regular variations in natural oil well pressures and oil composition. These are interpreted to indicate pulsations in stress build-up and relaxation, which in turn are related to non-linear movement along the strike-slip faults that mark the collision zone between the Eurasian and the Arabian plates. Concomitant changes in the volume of the Caspian Basin might explain at least part of the sea-level changes.*

*The climatic and the tectonic hypotheses are hotly debated among Russian scientists, and some of the spiritual arguments used by both sides will be demonstrated.*

As usual **after** the December lecture, there will be the traditional Christmas buffet with **wine, cheese and warm snacks** in the KIVI bar for PGK members to enjoy. Concurrent to this members may participate in nipping several Russian Vodka's, some of them straight from professor Kroonenberg's own secret supply.

Partners are most welcome to attend this event. The PGK is, however, not liable for the impression this may give them about the rest of the years activities.

### **THE PGK FINANCES**

As was approved by our visiting members at the annual meeting (February 19, 1997) and announced a few times before membership dues have been raised to **f 30,- per year, starting January 1998**. Therefore we would like to remind you, though we realise you've been accustomed to the familiar amount of f 25,-, to pay 5,- guilders extra which is of course still excellent value for money.

### **OUTSTANDING MEMBERSHIP DUES!!!!!!!!!!!!**

As notified in the November issue of the PGK Newsletter the Committee has, after scrutinising the membership list, informed the worst debtors of our Society. Happily, most have replied but some have refrained and these are therefore considered as not being interested in continuing their membership or are simply wrongly addressed (due to retirement/movement etc) in our membership list.

**To ensure a proper start of the new year it has therefore been decided to clean up the membership list by not renewing the membership of those listed below per 1/1/98.**

P Abilgaard, ER Hofstede (dues outstanding since 93)

YA Baumfalk, SJ Benedetti, IPAM van Campenhout, GA Cooley, PEF Diepenveen, M Ferguson, JHI Josselin de Jong, LW Kuilman, OU Onyeagord, S Pen, J van Prooijen, Province Noord Holland, J van Rhijn, R Saint, G Schriever, E Voigt, T Witberg (dues outstanding since 94)

OH Barzanji, HA Davies, JJ de Meijer, C Myers, IL Ritsema, (dues outstanding since 95)

However, as it is very well possible that some of the above are still unaware (e.g. due to wrong address) of the late payments, it would be appreciated if members familiar with one or more of the debtors listed above could give him/her/them a friendly nudge **BEFORE** the December lecture.

### **AND NOW FOR SOMETHING COMPLETELY DIFFERENT: DINOSAURS**

As some of you may know the PGK is about to celebrate her 20th birthday. Starting the lustral activities in 1998 the PGK is proud to pronounce a special event at January 21 1998. Instead of, as usual, being lectured at the Kivi building, January's meeting is at the Museon, Stadhouderslaan 41, The Hague. The Museon can be reached by public transport: take Tram 7 or 10 from The Hague Hollands Spoor or take Tram 4 from The Hague Central Station. The evening is scheduled as follows:

18.00 hrs - 18.30 hrs

Aperitifs

18.30 hrs - 19.15 hrs

Lecture by mr A. Schulp, a title will be announced in the January Newsletter

19.30 hrs - 20.30 hrs

Guided tour on 'The Lost World' exposition on the extinction of Dinosaurs

For the entrance fee and catering can not be covered entirely by PGK funds we ask for a small contribution of **Nfl 10,-**. **PLEASE REGISTER** by filling in the Participation Form at the end of the Newsletter, sending us an e-mail or calling one of the PGK Committee members **before January 7 1998**. Don't forget to pay your contribution of Nfl 10,- into one of the PGK bank accounts shown in the letterhead!

### **MEMBERS NEWS**

We have received applications for membership from **Dr Tamar Hassan**, employed with the TU Delft, Faculty of Applied Earth Sciences., **Mr Sicco J.S. de Nes**, Consulting Geologist and **Dr. Gert-Jan Weltje**, working for both the TU Delft, Faculty of Applied Earth Sciences and NITG-TNO. If no objections are received by the end of the next meeting they will automatically be elected member of the society.

### **PGK ON THE WEB**

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### **TIES**

The traditional dark blue and new "Red Stripe" PGK tie will not only smarten you up but makes an excellent business gift for foreign clients and visitors and is in this cold December month a mysterious looking but highly awarded present under the Christmas Tree. The ties cost Nfl 25,- each and they can be obtained from the secretary. Both designs are available for sale at every meeting.

### **MAIL LABELS**

The memberships dues on the mail labels were last updated on December 4, 1997.

### **SPONSORSHIP**

The PGK is very grateful to its sponsors who have been helping to finance the cost of renting the KIVI lecture room, tickets and accommodation for overseas lecturers, monthly drinks for members and contributing to the cost of the field seminars. The following companies are warmly thanked for contributing to our activities in 1997:

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**JANUARY 21 1998 PGK MUSEON EVENT REGISTRATION FORM**