PETROLEUM GEOLOGISCHE KRING

KONINKLIJK NEDERLANDS GEOLOGISCH MIJNBOUWKUNDIG GENOOTSCHAP

PGK

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Venue:	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.		**www.pgknet.nl**
Membership:	Apply for membership by contacting the secretariat. Euro 15,-		
Accounts:	Fortis Bank: 88 65 82 733 (PGK, Den Haag)		Postbank: 4074482 (PGK, Den Haag)

FEBRUARY NEWSLETTER

19 FEBRUARY: ANNUAL MEETING AND PGK 25TH ANNIVERSARY EVENT

The next PGK meeting will be on Wednesday 19th of February and will be held at the "Hotel des Indes". It will start at 16:30 with the PGK Annual Meeting where all the activities and financial reports of last year will be presented. The annual meeting will be followed by the celebrations of the PGK 25th anniversary as following:

16:30 - 17:15 PGK Annual Meeting (meeting room, first floor)
17:15 - 18:15 Drinks (mezzanine of hotel)
18:15 - 22:00 Three-courses dinner (dining room) with the following speeches:

Prof. Dr. Peter Ziegler, Univ. of Basel
Dr. Jan de Jager, NAM, Assen
Dr. Tony Doré, Statoil, London

ABSTRACTS:

P.A. Ziegler: Crustal Configuration of Western and Central Europe

A newly compiled Moho depth map is presented for Western and Central Europe and the West-Mediterranean area. Tectonic overlays summarize Caledonian and Variscan tectonic units, Permo-Carboniferous fault systems and magmatic provinces, Mesozoic and Cenozoic rift-wrench systems, areas of intraplate compression, the outlines of Alpine orogens and the distribution of oceanic crust. Comparison of these overlays with the Moho depth map permits to assess processes which through time controlled the evolution of the crust in the different parts of Europe. The present day crustal configuration of Western and Central Europe results from polyphase Late Palaeozoic to recent lithospheric deformations which overprinted the margin of the Proterozoic East-European Craton and particularly the Caledonian and Variscan crustal domains. Shortly after the consolidation of the Caledonides their crustal roots were destroyed in conjunction with wrench tectonics and back-arc rifting. During the Permo-Carboniferous tectono-magmatic cycle the Variscan orogen and its foreland were disrupted and the lithosphere thermally destabilized. Late Permian and Mesozoic re-equilibration of the lithosphere-asthenosphere system was interrupted by the development of the Arctic-North Atlantic and Tethyan rift systems. During the Alpine orogenic cycle, intraplate compression, controlling crustal thickening and lithospheric folding, interfered with the evolution of the Rhine-Rhône rift system. The Alpine chains are characterized by variably deep crustal roots. Neogene back-arc extension disrupted the eastern Pyrenees, the Betic-Balearic, Apennine and Dinarides orogens.

Jan de Jager: 25 years of exploration success: from Pen & Paper to Workstations

After several decades of exploration, the Netherlands has become a mature exploration area. Some 3000 wells have been drilled, and almost 40% of the Netherlands is now covered by 3D seismic. Despite the increasing 'maturity', the volume of new gas reserves added each year has remained almost constant at 1 Tcf, without clear signs of creaming. How have we been able to sustain this remarkable exploration success for so long?

25 years ago, when the PGK was founded, technology was not nearly as advanced as today, and exploration was to large extent handwork. In the years that followed, continuing exploration success was very much driven by an

ever-increasing technological sophistication. The improvements in seismic imaging and (quantitative) interpretation tools are particularly astounding, and the construction of detailed 3D models of sedimentation, structuration, temperature, charge, migration and overpressure development has become a daily routine. At the same time, the improved understanding of geological settings has helped development of creative new play concepts. An example is the NE Netherlands, which appeared to be virtually creamed in the late '80s, and where since then circa 5 Tcf of new gas reserves have been discovered through application of improved technology and geological understanding.
Yet, despite all today's technology and all the available skills and competencies, serendipity plays a more important role in exploration success than we would like; some of our best discoveries are made by accident. A striking example of this is the discovery, in 1993, of an extremely prolific gas field in offshore block L9.
While the last 25 years has seen many changes in the gas and oil industry, we must be prepared for even greater changes in the 25 years ahead of us. Not only because of the liberalisation of the gas market and developing alternative energy sources. Above all, we will have to face up to the reality that the Dutch gas reserves are a finite resource; we cannot assume that in 25 years from now, we will still be finding 1 Tcf of new gas reserves per year. It is assumed that there are several hundreds of billion cubic metres of gas yet to be found in the Netherlands. To realise this we will need even greater technological capabilities than we have today. But above all we need talented and creative explorers; we cannot leave it all to computers.

Tony Doré: Geoprophesy and the petroleum industry – a personal look ahead over the next 50 years
It has been said that a geologist's job is to "predict what has already happened". All in the profession know how notoriously difficult this is, which is why there are almost as many models as there are geologists. Equipped with this kind of mindset, it is probably doubly difficult to predict the future. Nevertheless it is a task which most geologists, with their love of speculation, should find hard to resist. In this very personal view, I examine the premise that the past is the key to the future. By tracing the evolution of geological thought and the changes in the petroleum industry over the last 50 years or so, I will examine how the actuality lived up to our expectations. I then consider how much, if at all, these trends can be used to see forwards in time.
Out of a vast subject, I speculate briefly on just four topics.
1) Paradigm shifts. Radical changes in geological thought have taken place over the last 50 years, many with consequences for the petroleum industry. I show that far from being sudden flashes of inspiration, many of these ideas had been "in the ether" for many years, remaining dormant until the time was right. In what areas of geology will the next big changes come?
2) Seismic technology. In just 35 years we have progressed from the first offshore surveys of crude quality to exquisite 3-dimensional images of the subsurface that are in many ways superior to outcrop data. This new view – dubbed by some the "Geological Hubble"- has significantly reduced exploration risk. How much further can we go in elimination of risk, and to what extent will the seismic interpreter be needed at all?
3) Working practice in the petroleum industry. Changes in the industry very much mirrored global trends – a drive towards automation and computer power that was widely predicted. Few, however, could have predicted the pace and scale of change. How, and where, will we be working in coming decades?
4) Petroleum prices and supply. Our record of prediction has been unremittingly dismal. Debate still rages as to the longevity of the global petroleum resource, constrained as it is by the one unassailable fact that this resource is finite. What will the implications be for alternative energy sources, for our way of life and for the planet as a whole?
I will save my "answers" to these many questions for the presentation, in the certain knowledge that many in the audience will want to challenge them.

If you haven't registred yet, please find registration form at the end of this Newsletter

NEW MEMBERS
Applications for membership have been received from Thierry Rives (TFE), R.L. Hartstra and L. Fullarton (Shell). If no objections are received prior or during the next meeting, they are automatically admitted as members of our society.

Thanks to our sponsors:
Argo Geological Consultants - BP Nederland Energie – DSM Energie - Energie Beheer Nederland – ENRES International - Fugro Inpark - Fugro Robertson - Hogeschool Rotterdam, sectie aardrijkskunde - Nederlandse Aardolie Mij - Oranje Nassau Energie - PanTerra Geoconsultants – Petro-Canada Netherlands - Schlumberger - Shell Nederland – Terra Incognita Geoconsultancy and Geobooks – TNO-NITG - TotalFinaElf E & P Nederland– Unocal Netherlands -Wintershall Noordzee

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PGK 25th Anniversary Event

(Drinks, Diner & Seminar)

"Past and Future of the E&P Industry in the North Sea and Beyond"
Hotel des Indes, The Hague
Wednesday February 19, 2003

Programme

16:30 - 17:15	PGK Annual Meeting (meeting room, first floor)
17:15 - 18:15	Drinks (mezzanine of hotel)
18:15 - 22:00	Three-courses dinner (dining room) with the following speeches:

Prof. Dr. Peter Ziegler	Univ. of Basel	Crustal Configuration of Western and Central Europe
Dr. Jan de Jager	NAM, Assen	25 Years of Exploration Success: from Pen and Paper to Workstations
Dr. Tony Doré	Statoil, London	Geoprophesy and the petroleum industry

Costs

PGK offers you this Anniversary Event, including drinks, dinner and presentations, for EUR 45,- per person. Couples pay a reduced fee of EUR 75,- per couple. Students can attend for EUR 25,-

Reservation

Please make a reservation for this unique event by returning the reply form below and transfer your payment into one of PGK's accounts at the same time, mentioning "PGK 25th Anniversary Event" and your name.

Information

http://www.pgknet.nl or e-mail to secretary@pgknet.nl

Reply Form

Return to

e-mail: Alessandra Giacometti PGK Secretary: secretary@pgknet.nl
or mail: PGK
p/a Marco van der Meulen
Stadhoudersplantsoen 2
2517 JL Den Haag
070-3424613

Registration

I/we will attend the PGK 25th Anniversary Event on February 19, 2003.

☐ Single	Name:	EUR 45,-
☐ Couple	Names:	EUR 75.-
☐ Student	Name:	EUR 25,-
☐ I prefer _____* vegetarian dinner(s)		

Address

Street and number:

Postal code and city:

E-mail

New member application

☐ I am not a member of PGK but apply for membership and pay the 2003 membership dues with this application EUR 15,-

Payment

☐ Payment to VSB Bank: 88 65 82 733 (PGK, Den Haag)	total	EUR*
☐ Payment to Postbank: 4074482 (PGK, Den Haag)	total	EUR*

(please fill in)*