

PETROLEUM GEOLOGISCHE KRING

KONINKLIJK NEDERLANDS GEOLOGISCH EN MIJNBOUWKUNDIG GENOOTSCHAP



PGK

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Web Site:	A new PGK web site is under construction		Labels: Last update: 1-March-1999
Membership:	Please apply for membership by contacting the secretariate. Membership dues for 1998 and 1999: Fl 30,- Membership dues for 1997 and previous years: Fl 25,-		
Accounts:	VS Bank: 88 65 82 733 (PGK, Den Haag)	Postbank: 40 74 482 (PGK, Den Haag)	

MARCH 1999 NEWSLETTER

PGK MARCH MEETING

The **MARCH** meeting will be held on **WEDNESDAY, MARCH 17th**, at 17:45 PM at the KIVI building, Prinsessegracht 23, Den Haag and will be preceded by aperitifs from 17:00 PM onwards.

Mark Geluk (Netherlands Institute of Applied Geoscience - National Geological Survey) will speak about "Triassic palaeogeographical and structural development in the Netherlands".

The Triassic was a period of important structural reorganisation. It marks the transition from the late Variscan tectonic development to the highly differentiated Kimmerian subsidence patterns, related to the disintegration of Pangea. During the Triassic the most important structural highs were the London-Brabant Massif and the Mid North Sea High. Areas of pronounced Triassic subsidence were the Roer Valley Graben, Broad Fourteens Basin, Central Netherlands Basin, Central North Sea Graben and the Ems Low. These elements each had their individual subsidence pattern in Triassic times.

Triassic subsidence patterns display a distinct twofold character. Periods of thermal subsidence alternate with periods of tectonically controlled subsidence. During thermal subsidence, sediment accumulation occurred mainly along the E-W trending axis of the Mid European Basin. A good example is the Lower Buntsandstein, which reaches a thickness of around 400 m in the central part of the basin, thinning both towards the Mid North Sea High and the London-Brabant Massif. Two main phases of rifting have been identified, namely the Hardegsen phase in the Early Triassic and the Early Kimmerian phase in the Late Triassic (Carnian). These phases do not form single events, but each of them is composed of different rift pulses.

The Hardegsen phase resulted in an important structuration of the basin, with uplift and erosion on the Netherlands Swell, Cleaver Bank High and Mid North Sea--Ringkøbing-Fyn High. It triggered subsidence of the Roer Valley Graben, West Netherlands Basin, Broad Fourteens Basin, Ems Low and the Central North Sea Graben. During deposition of the Main Buntsandstein rifting shifted from the Roer Valley Graben into the Central North Sea Graben. This had important implications for the distribution of reservoir sands. Studies in the Netherlands and NW Germany revealed, that the Lower Triassic Buntsandstein is made up of a series of tectono-stratigraphic units, bounded by unconformities. These large-scale units comprise high-resolution sequences, which can be traced for several hundreds of kilometers. The sequence stratigraphical framework is applicable to the Buntsandstein throughout most of the Mid European Basin. The high-resolution sequences reflect variations of climatic origin, and correspond to alternating arid and humid periods in the intracratonic basin with a periodicity of about 100.000 years.

After the Hardegsen phase, deposits of the Solling Formation basin-wide covered the palaeorelief. During the Röt Formation, deposition again was controlled by the E-W trending subsidence axes of the Mid European Basin and continuous rifting in the Central North Sea Graben. Uplift and erosion occurred on the northern flank of the London-Brabant Massif. During deposition of the Muschelkalk Formation, rifting continued in the Central Graben area. Activity along the Peel Boundary Fault controlled the distribution of the Muschelkalk Salt Mb.

During the Early Kimmerian phase, pronounced rifting concentrated in the Central North Sea Graben, the Ems Low and some grabens in the western offshore. In the eastern Netherlands and the Central Graben up to 1000 m of salt-bearing Keuper successions were deposited. Active salt diapirism accompanied the rifting. Uplift occurred of a large area north of the London-Brabant Massif, where most of the Muschelkalk and Lower Keuper have been eroded, Upper Keuper deposits of the Steinmergelkeuper (Red Keuper Claystone Mb. and Dolomitic Keuper Mb.) sheetlike cover the palaeorelief, except for the eastern Netherlands where Rhaetian of even Liassic deposits covered this relief.

OTHER FORTHCOMING PGK EVENTS

April 21st Harm W. Frikken (NAM Schoonebeek): Wrench tectonic signatures: prediction of open fracture systems and prospectivity in Zechstein gas reservoirs, NE Netherlands

May 15th Fieldtrip to the land van Saeftinghe

September 23-26 Field Seminar to the Rotliegend and Zechstein of the Harz and eastern Germany

OTHER EVENTS OF INTEREST TO PGK MEMBERS

March 17-18 Geological Society – Petroleum Group: The Role of Geological Fieldwork in Hydrocarbon Exploration and Production, Burlington House. Contact: David MacDonald, Tel: 01223 277586, Fax: 01223 276604, Email: david.macdonald@casp.co.uk

March 18 DPS: Petrophysics alive & kicking, 12:00 sharp at Delft University of Technology, Faculty of Applied Earth Sciences, Mijnbouwstraat 120 Delft, in the large meeting room (room 204)

March 27th, UGV – afternoon program for all former students of the Faculty of Earth Sciences - University of Utrecht, starting at 12.00. Plans for a reunion society will be revealed. For more information and registration contact the UGV, tel 030-2532019, email: ugv@geo.uu.nl or www.geo.uu.nl/~ugv.

March 26-28, Seminar Modelling Barrier Coast Sequences to be held at NIOZ, Texel. For registration and information contact Prof. Dr. Salomon B. Kroonenberg (tel +31 15 278 6025 or 1328; fax +31 15 278 1189; e-mail S.B.Kroonenberg@cent2.mp.tudelft.nl)

April 15 DPS : Natural Gamma Ray in Minerals, Andy Hurst, Aberdeen University, 12:00 sharp at Delft University of Technology, Faculty of Applied Earth Sciences, Mijnbouwstraat 120 Delft, in the large meeting room (room 204)

April 20-23 EAGE/SPE International Symposium on Petroleum Geostatistics, Toulouse, France. See also <http://www.spe.org/events/eage/>

May 31-June 1 Groningen: Catalyst for the North West European Oil and Gas Industry. City of Groningen. If you wish to receive a circular including registration form phone +31 - (0)174 29 80 22 or e-mail: themageo@worldonline.nl

June 7-11 61st EAGE Annual Conference and Technical Exhibition, Helsinki, Finland. See also <http://www.eage.nl/eage5.html>

MEMBER NEWS

We have received applications for membership from **Mr. H. de Haan**, **Mrs. S. van Ratingen** (NITG-TNO), **Mr. M. Galavazi**, **Mr. B van Hilten** (PanTerra), **Mr. A. Dijkstra** (University of Utrecht), **Mrs. I. Spillekom**, **Mr. G. Lopes Cardozo** and **Mr. B. van der Kooij** (students VU Amsterdam). If no objections are received by the end of the next meeting they will automatically be elected members of the society.

REGISTRATION FORM PGK ONE-DAY-FIELDTRIP 1999, MAY 15th

This year's one-day fieldtrip is planned to take us to **the land van Saeftinghe**. "Het Zeeuwse Landschap" will guide us in this tidal area which is normally not accessible to the public.

The maximum number of participants is 30 people. In respect of the type of setting (mud, channels, quicksand) this fieldtrip is only recommended for those that are physically well. Heart patients and pregnant women should not participate.

Recommended clothing: cloths that can get dirty and knee-high rubber boots that fit well. In case of nice weather shoes that can get wet are also possible. It is advised to take spare clothing. There will be limited opportunity to change cloths.

Preliminary program:

Departure: Saturday May 15th, approx. 0700 AM from Den Haag, Central Station. Arrival at the visitors centre Saeftinghe, Emmaweg 4, Nieuw-Namen (Emmadorp). Tour of 2 to 4 hours and subsequently opportunity to visit the visitors centre.

Costs: approximately NLG 60,-

THE NUMBER OF PARTICIPANTS IS LIMITED TO 30 PEOPLE; REGISTER QUICKLY!

Please return the registration form below to:

Drs. M.C. Geluk (Excursion Secretary)

C/o NITG-TNO

P.O. Box 80015

3508 TA Utrecht

email: m.geluk@nitg.tno.nl

Registration for the land van Saeftinghe-fieldtrip, May 15, 1999.

Name.....
Adress.....
Telephone/email.....
Signature.....

*The following companies are warmly thanked for sponsoring the PGK in 1998:
Amoco Netherlands B.V. - Argo Geological Consultants - Chevron U.S.A. Inc., The Netherlands Branch - Clyde Petroleum Exploratie B.V. - DSM Energie - Elf Petroland B.V. - Energie Beheer Nederland B.V - Fina Nederland B.V. - Hays Informatiebeheer B.V. - Nederlandse Aardolie Maatschappij B.V. - N.V. Nederlandse Gasunie - Oranje-Nassau Energie B.V. - PanTerra Geoconsultants B.V. - RWE-DEA Netherlands Oil GMBH - Shell Nederland B.V – Unocal - Wintershall Noordzee B.V.*

*The following companies have already allocated sponsorship for 1999:
Amoco Netherlands B.V.- Enres International. - Hays Informatiebeheer B.V. -- Shell Nederland B.V – Schlumberger - Wintershall Noordzee B.V.*