



PGK

Petroleum Geologische Kring

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Venue: PGK's monthly meetings are held at the KIVI building, Prinsessegracht 23, Den Haag. Drinks are served from 17:00 hrs; the lecture starts at 18:00hrs.

SEPTEMBER 2014 NEWSLETTER

Membership dues

Please remember to pay your 2014 membership dues of €15 to the following bank account: NL14ABNA0886582733, PGK, Den Haag. Please make sure to mention your "name" and "PGK fee 2014" in the subject.

At this moment 80% of the members have paid their membership fee for 2014.

17th September, 2014: monthly PGK meeting

We will host 2 lectures this month on "*Structural development of the Dutch Central Graben: new ideas from recent 3D seismic*" by Eveline Rosendaal (EBN) and on "*Late Jurassic rifting in the southern Central Graben: a complex story simplified*" by Roel Verreussel (TNO).

Programme: 17:00-18:00 social hour
18:00-19:00 presentations and discussion

Venue: KIVI building, Prinsessegracht 23, 2514 AP, Den Haag



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12th-14th September, 2014: PGK YP/AAPG fieldtrip

The young professional section of PGK/AAPG is organising a fieldtrip in September in Belgium under the guidance of Prof. *Noel van den Berghe* (Leuven University).

The group will visit four localities and will spend 2 nights in Antwerp.

The fee is € 135. For more information please send e-mail: pgk.aapg.vp.nl@gmail.com

Excursions 2014

PGK September Field Trip: **Jurassic Coast of South England**, 25-28 September 2014

Guides: *Harry Doust* (VU Amsterdam) and *Johan ten Veen* (TNO)

Objectives:

- To study the evolution of migrating Mesozoic rift basin development, through synrift, postrift, inversion and post-inversion cycles.
- To study the sedimentology of important analogue reservoir units for the Southern Permian Basin
- To follow the development of an important petroleum system based on Jurassic source rocks, Triassic reservoirs and Tertiary inversion anticlines.

Registration is closed and we are fully booked.

New Members

Applications for membership have been received from Jose Maria Mulet (Panterra), Daan Hoijtink (Argo) and Salma Ben Amor (Shell), Dejan Zamurovic (Argo), Meindert de Ruiter (Shell). If no objections are received prior to or during the next meeting, they will be admitted as member of our society.

Also, we encourage our members to become members of our umbrella organisation, **KNGMG**. You can check more info here: <http://www.kngmg.nl>

Website

The link to our website is www.pgknet.nl. Check there for the latest news on meetings, events, excursions, jobs, membership. If you come across interesting websites that may be of use to other members of the PGK, please send the URL to the web master (gijs.straathof@sgs.com), who will share them on the PGK website. The *Jobs* section is updated with recent job announcements from the industry. *Do not forget to check them!*



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Twitter

We are now on Twitter @PGKring. The account shall be used to announce events, send reminders for events and occasionally to re-tweet interesting items. So follow us on twitter!

Linkedin

We also have a group on linked-in (called PGK), that our members may join. Any member of the group is free to list subjects there. Requests to the secretary for linked-in contacts will be ignored, as the secretary function does not have a linked-in account.

Abstracts

“Structural development of the Dutch Central Graben: new ideas from recent 3D seismic”

Rosendaal, E.A. (presenter), Kaymakci N., Wijker, D., Schroot, B.M.

A regional study on the northern Dutch Central Graben (DCG) and Step Graben (SG) based on, amongst others, very recent regional 3D seismic data has resulted in new ideas on the structural development of the area.

It is postulated that main rifting of the DCG occurred during Middle to Late Triassic. The Late Jurassic extensional phases and the Early Cretaceous inversion phases affected the NS orientated DCG and SG in a different way than the NW-SE orientated basins. There is no evidence in the study area that during the NE-SW Late Jurassic extension, the NS bounding faults were reactivated. WNW-ESE extensional faults developed or were reactivated creating a graben stepping down to the north. Furthermore, it seems that the Early Cretaceous inversion also did not reactivate the NS bounding faults but manifests itself only in a broad basin uplift with minor transpressional features.

We expect to improve our understanding of the timing of events, erosion amounts and paleogeography. We foresee future basin modeling to obtain further insights into the hydrocarbon maturation history. The observed WNW-ESE fault trends in the DCG could have tectonically controlled Late Jurassic to Early Cretaceous sedimentation and local accommodation space along the fault escarpments may create interesting opportunities for hydrocarbon exploration.

“Late Jurassic rifting in the southern Central Graben: a complex story simplified”

Verreussel, R.M.C.H.¹, Munsterman, D.K.¹, Ten Veen, J.H.¹, and Van de Weerd, A.², Dybkjaer, K.³, and Johannessen, P.N.³

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3. GEUS, Ø. Voldgade 10, 1350 Kbh., Copenhagen, Denmark



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A detailed understanding of the basin evolution is essential in hydrocarbon exploration: the distribution of reservoir sands and trends in grain size and porosity are directly related to it. In this presentation an attempt is made to reconstruct the complex basin evolution of the southern Central Graben area by careful correlation of sedimentary successions from the various sub-basins and intermediate plateau areas.

The Late Jurassic rift phase is complex: an important change in extension direction and in structural style occurs, subsidence varies dramatically through time and space and depocenters shift from one place to the other. Three major steps are recognized in the Late Jurassic basin evolution, each of which is closely related to changes in the tectonic regime. In the Southern Central Graben late Jurassic rifting starts with the Graben Axis phase, where subsidence is related to E-W extension and remains limited to the graben axis. At the end of this phase, the tectonic regime changes into NE-SW extension, which is accompanied by the formation and reactivation of NW-SE normal faults. The areas alongside the graben axis become active basins during this time. As a consequence, this phase is referred to as the Peripheral Basins phase. The final phase in the Late Jurassic basin evolution is characterized by waning fault activity and shedding of marine sediments onto the adjacent plateaus; hence the Adjacent Plateau phase. After the last rifting phase, a large-scale marine transgression blankets the entire Central Graben area. From then on, regional subsidence related to thermal cooling becomes prevalent for a long period of time.

The following companies are warmly thanked for sponsoring the PGK:

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