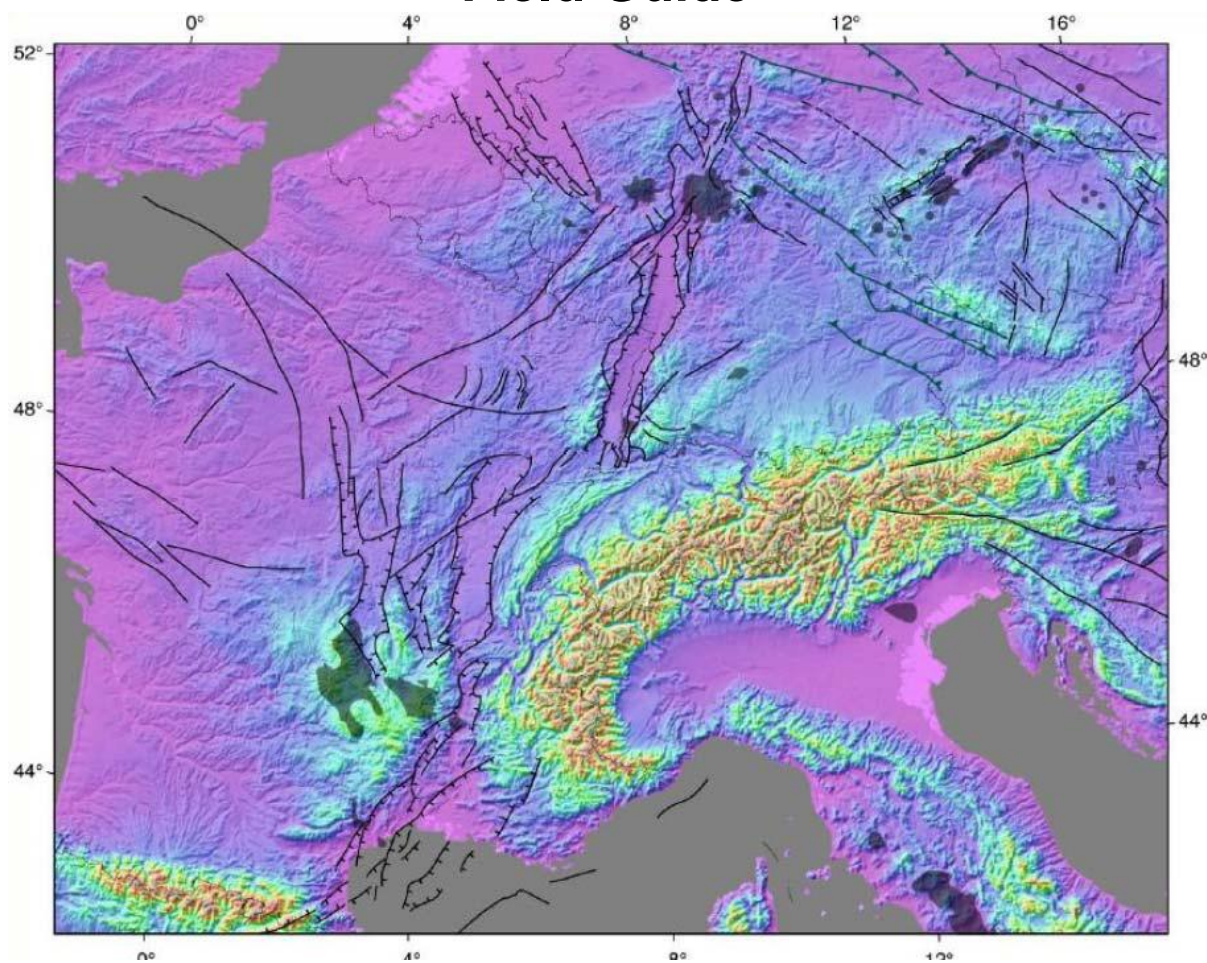


**Norwegian Formation Evaluation Society
Field Trip
27 – 28 September 2019**

**Petroleum Geology
of the Upper Rhine Graben**
The Upper Rhine Graben: a long history of oil exploitation
Field Guide



C. REINHOLD, G. STAHMER AND B. HEESBEEN

Day 1 & 2 Bart Heesbeen (Senior Geologist/Petrophysicist, Palatina)
Day 1 & 2 Carsten Reinhold (CEO Rhine Petroleum)
Day 2 Guido Stahmer (retired Geologist, ex Wintershall)
Day 3 Sunday Simon Spürgin (Mineralogist, Hauri Mineralstoffwerk),

As before, the program will comprise a mix of geology, history, and culture, as well as the inherent social aspect.

Photo summary by Ray Pratt

Thursday Heidelberg



Heidelberg Castle



Hotel dining room

Hotel Die Hirschgasse Heidelberg . <https://www.hirschgasse.de/>

Friday

1.1 Burg Battenberg

Burg Battenberg, 67271 Battenberg (Pfalz)

Introduction into URG scenery and petroleum geology



Prominent features in Buntsandstein rocks supposedly due to being hit by lightning. (Probably more to do with iron movement and enrichment)

1.2 Posidonienschiefer (Lias epsilon), Zeuterner Str. 20, 76669 Bad Schönborn (OT Langenbrücken).

Geology Langenbrücker Senke, source rock



Close to major graben fault. Gypsum veining throughout this section. Unknown tube feature.



Conjugate fracture sets clearly seen.

1.3 Winzergasse 42, 76889 Gleiszellen- Gleishorbach



View from hotel room balcony



Fine wining & dining

2.1 Asselstein

Asselstein, 76855 Annweiler am Trifels
Buntsandstein facies & diagenesis



Superb cross bedding and channels. Conglomeratic sand being pointed out

2.2 Musée Français du Pétrole

4 Rue de l'École, 67250 Merkwiller- Pechelbronn, France



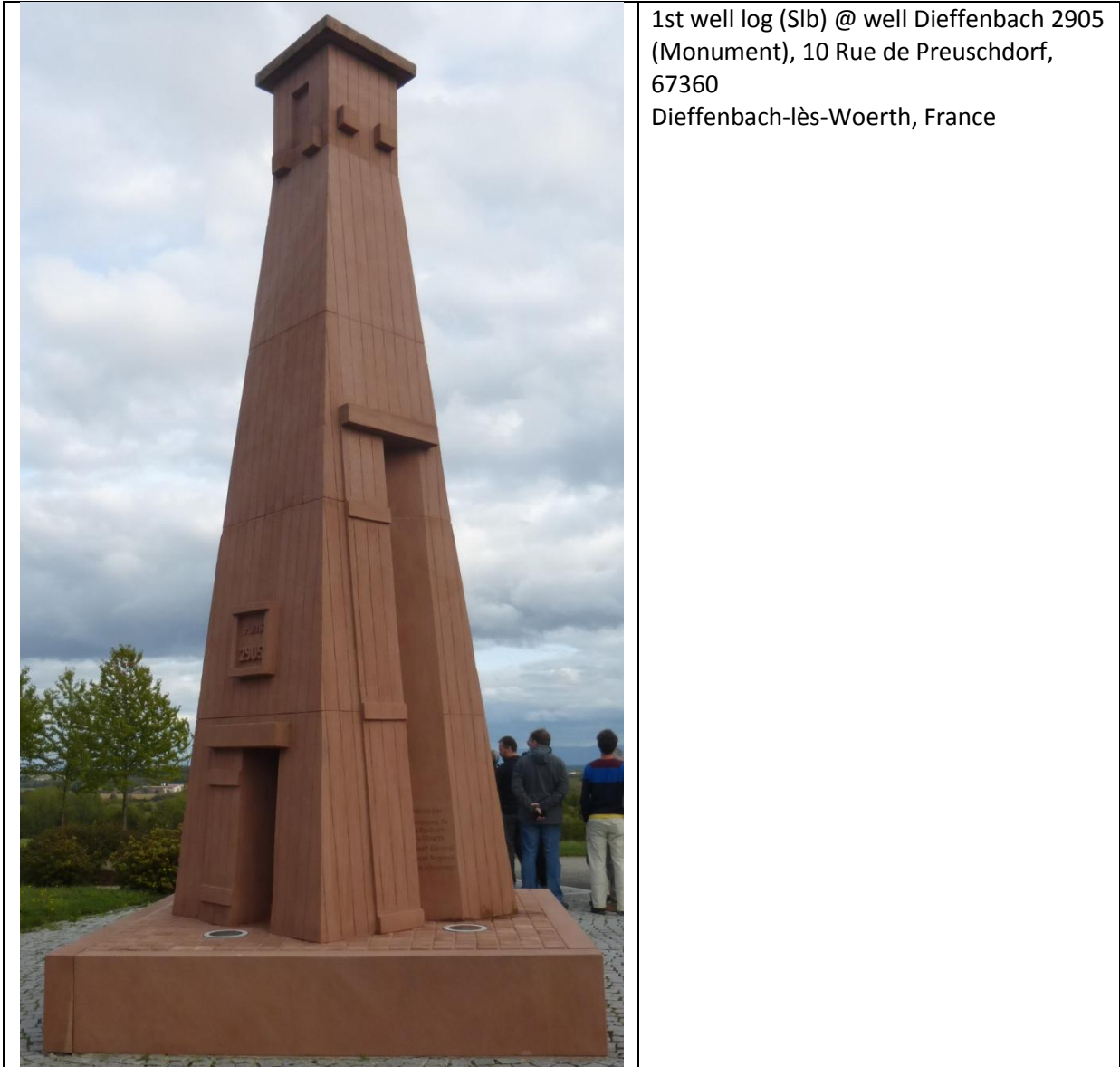


Natural oil seep near Pechelbronn

2.3 Pechelbronn 1 - 1st oil well. 20 Route de Lobsann, 67250 Kutzenhausen, France
historic well site visit, 1st modern oil well (1813)



2.4 Well Dieffenbach



monument 1st Wire-line logging operation`



The bit marks the spot of the first well ever to be wireline logged

2.5 Freiburg



Interesting combination

Saturday night: <https://roter-baeren.de/> in Freiburg

3.1 Kaiserstuhl -



Loess



Volcanics in road cutting

3.2 Hauri Quarry



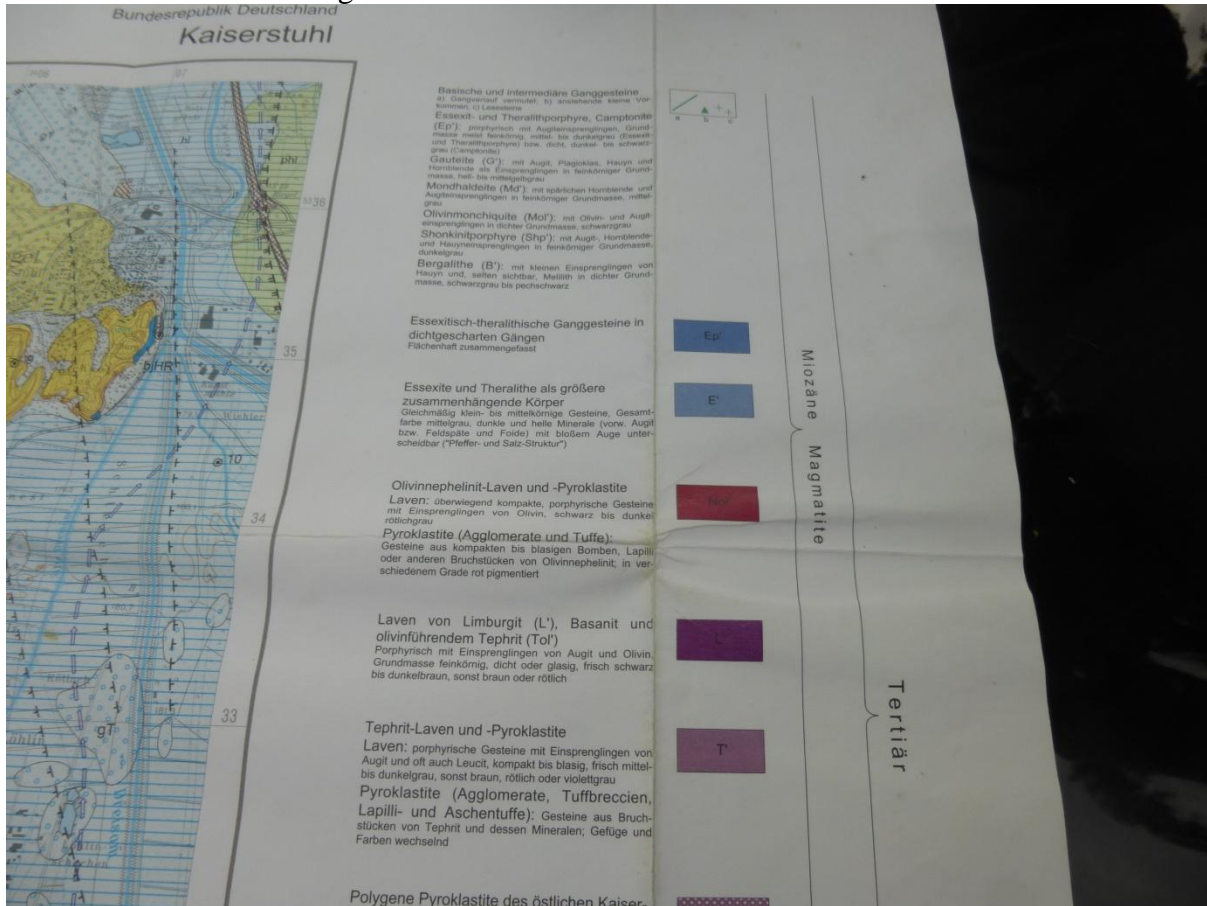
Phonolite with zeolites (white minerals and veins)

3.3 Carbonitite quarry



Carbonitite with mafic mineral inclusions displaying some banding texture

3.4 Peridotite Road Cutting



Essexite is a rock (form of diorite)



Huge olivines weathering in a peridotite matrix

3.5 Aufschluss Limberg - Steinbruch II (Lavas)



Lava flow 2 with huge pyroclastic boulders

3.5 Aufschluss Limberg - Steinbruch I (Lavas)



Lower lava flow blocky, overlain by lake sediment deposit which is covered by pyroclastic lava flow. This latter flow fluidised the lake sediment and created an injectite.

3.6 Speyer



Hausbrauerei Dohof Hotel courtyard



Back of Speyer cathedral. This is a massive structure but inside it was just big and bare.



A truly magnificent church, very elegant and expensively finished, particularly interesting given its Lutharian roots. The interior stone work was splendid and the stained glass windows magnificent.



Oktober fest had just begun.



1970 Aston Martin - Speyer Technisk Museum