

SNEAP

D.G.H. - D. EXPLORATION  
LABORATOIRE DE GEOLOGIE DE BOUSSENS

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GEO/LAB Bss n° 7/1541 RP  
/fr

16/3 - 2 WELL (NORWAY)

PALYNOLOGICAL REPORT ON THE LOWER CRETACEOUS  
AND  
THE JURASSIC BETWEEN 1934,50 M AND 2006 M

J.F. RAYNAUD - P. MOREAU

Boussens - August 1977

Reference : Order n°033 128

- R. CUSSEY : 7/1499 RP - 16/3 - 2 Well (Norway)  
Sedimentological study of Jurassic deposits.
- R. CUSSEY : 7/1517 RP - 16/3 - 2 Well (Norway)  
Sedimentological study of the Tertiary deposits.
- B. PHILIPPE : 7/1536 RP - 16/3 - 2 Well (Norway)  
P. ROBERT Source-rock identification and organic catagenesis.

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DISPATCHING LIST

RECIPIENTS :

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1 - INTRODUCTION

13 samples have been analysed in the interval 1934-2006 m :

- 12 sidewall core samples (1934,5 m, 1948 m, 1952 m, 1959 m, 1963 m, 1965 m, 1973 m, 1978 m, 1986 m, 1990 m, 1994 m, 2003 m) ;
- 1 core sample (core 2).

Many of them are very fossiliferous (1934,5 m, 1952 m, 1963 m, 1965 m, 1973 m, core 2). The sample 1978 m is contaminated by Tertiary microfossils.

2 - PALYNOLOGICAL ZONATION AND STRATIGRAPHY

2.1 - 1934,5 m : Very rich marine microflora similar to the Speeton Clay assemblage ; occurrence of :

Cassiculosphaeridia magna  
Gardodinium trabeculosum  
Pseudoceratium pelliiferum  
Phoberocysta neocomica  
Sirmiodinium grossi  
etc ...

Zone : NC 3 a  
Age : BARREMIAN

2.2 - 1948 m : Very few organic matter ; no microfossils.

2.3 - 1952 m : Occurrence of :

Hystrichodinium pulchrum  
Heliodinium voigti  
Scriniodinium D 593  
Sirmiodinium grossi  
Pseudoceratium pelliiferum  
etc ...

Zone : NC 2  
Age : HAUTERIVIAN.

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2.4 - 1959 m : Marine assemblage characterized by the predominance of Chytroeisphaeridia D 505.

Zone : NJ 9  
Age : PORTLANDIAN.

2.5 - 1963-2003 m : Rich marine assemblage :

Chytroeisphaeridia D 505  
Imbatodinium villosum  
Adnatosphaeridium D 515 B  
Dingodinium jurassicum  
Gonyaulacysta longicornis D 432 b  
Gonyaulacysta aff. nuciformis  
Glossodinium dimorphum  
Gonyaulacysta D 598  
etc...

Zone : NJ 8  
Age : PORTLANDIAN-KIMMERIDGIAN.

2.6 - Core 2 : Only a part (24 %) of the core 2 (1998-2006 m) has been recovered. This core sample is characterized by a rich marine microflora and an abundant organic matter whereas the sidewall core sample 2003 is poor in microflora. It differs from the samples analysed above by the occurrence of Gonyaulacysta jurassica, Scriniodinium dictyotum  
etc ...

Zone : NJ 7  
Age : KIMMERIDGIAN.

.../...

### 3 - NATURE OF ORGANIC MATTER AND THERMAL ALTERATION

A great amount of "amorphous-algal" organic matter characterizes the palynofacies in the interval 1952-1986 m. It is particularly abundant from 1959 to 1973 m.

The organic matter in the core 2 is essentially of ligneous and coaly type. The majority of the woody particles are totally fusinised.

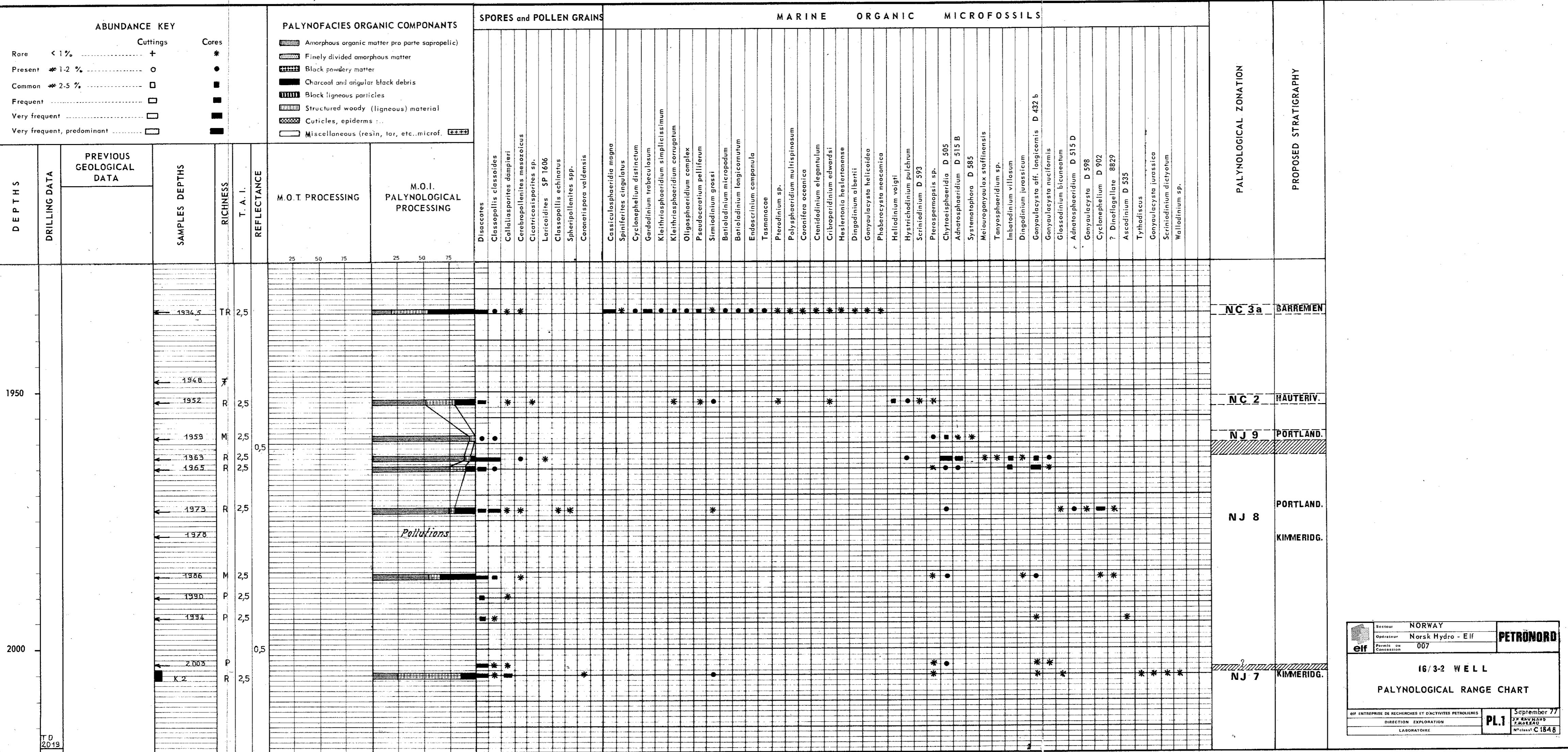
The thermal alteration of the microfossils is weak and no change in the state of preservation of the microflora in the interval 1934-2006 m is noted. The Thermal Alteration Index is estimated at 2.5.

### 4 - CONCLUSION

This short study confirms the stratigraphic zonation by mean of foraminifera\* in the Lower Cretaceous section and gives a good characterization of the Upper Jurassic in 3 palyzones (NJ 7, NJ 8, NJ 9) ranging from KIMMERIDGIAN to PORTLANDIAN.

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\* DURIF et GROSIDIER 6/1359 R - Well 16/3-2 (Norway).  
Micropaleontological report (Cretaceous and Jurassic) - Juin 1976.



Secteur NORWAY  
 Operateur Norsk Hydro - Elf  
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**PETRONORD**

16/3-2 WELL  
 PALYNOLOGICAL RANGE CHART

SEPTEMBER 77

DIRECTION EXPLORATION  
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