SIMON PETROLEUM TECHNOLOGY

WELL: 15/9-1

Print: 1872 X	Units: (M) F	Top	Bottom	Scale	TD
Length: 27·5 FT	Initials: ARC	130	3740	1/500	3734

DIGITAL WIRELINE LOGS PACKAGE
1994
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SIMON PETROLEUM TECHNOLOGY SPT

COMPLETION LOG

Sb.101.1

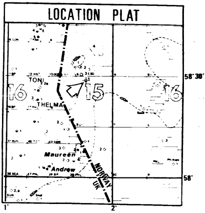
statoil / ESSO

15/9-1

COMPLETION LOG
Scale 1:500

COORDINATES: 58° 28' 19.00" N
01° 45' 11.76" E
K.B.: 25m
WATER DEPTH: 106m
TOTAL DEPTH: 3734m
DEEPEST FORM. AGE PEN.: Skagerrak Fm (Triassic?)
SPUD DATE: Feb.24,'77
RIG RELEASE DATE: May 30,'77
WELL STATUS: P&A
RIG: Ross Rig
CONTRACTOR: Ross Drilling Company A/S
GEOLOGISTS: E.Lie, A.Hage, E.Asphaug, K.J.Skaar, T.Hauge, H.Gjerstad, B.Rasmussen
PREPARED BY: E.Asphaug / O.Aga

LOCATION PLAT



DATE: Oct. 14,'77

CASING DATA:
30" at 168m
20" at 397.6m
13 3/8" at 1203m
9 5/8" at 2849m
7" liner at 3733.5m

VELOCITY SURVEY: 30 checkshots, levels from 620m to 3734m by SSL

LOGS RUN (depth in meters / Schlumberger)

ISF/SONIC	FDC/CNL-GR	HDT	CBL-VDL-CCL-GR	CPI		
Run 1 131-402 (sonic only) 2 397.2-1217.8 3 1203.8-2868 4 2846-3735.5	Run 1 397.2-1216.1 2 1203.8-2869 3 2846-3736	Run 1 2846-3736	Run 1A 400-1203 1B 1450-2842 2 2710-3709.1	Run 1 3499.7-3725.9		

LITHOLOGIC SYMBOLS

▨ CONGLOMERATE	▤ SHALE	▭ LIMESTONE	▦ SALT	▦ PYRITE
▨ SANDSTONE	■ COAL	▦ DOLOMITE	▤ METAMORPHIC	▨ GLAUCONITE
▨ SILTSTONE	▤ MARL	▨ ANHYDRITE	▨ TUFF	▨ CHERT
▤ CLAY	▦ CHALK	▭	▨ INTRUSIVE	▨ FOSSILIFEROUS

◐ SHOW OR STAIN ◑ HYDROCARBON CUT ◐ FLUORESCENCE -○- GAS SHOW

SIDEWALL CORES CORES D.S.T. F.I.T.(RFT) BIT CASING SHOE

○→ REC.

●→ REC. W/SHOW

CORE NO.

Original hole

Sidetracked hole

Liner

SYSTEM

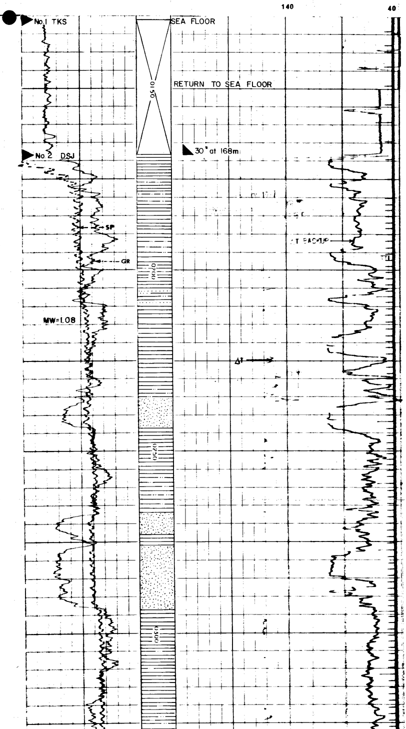
SERIES

STAGE

GROUP

FORMATION

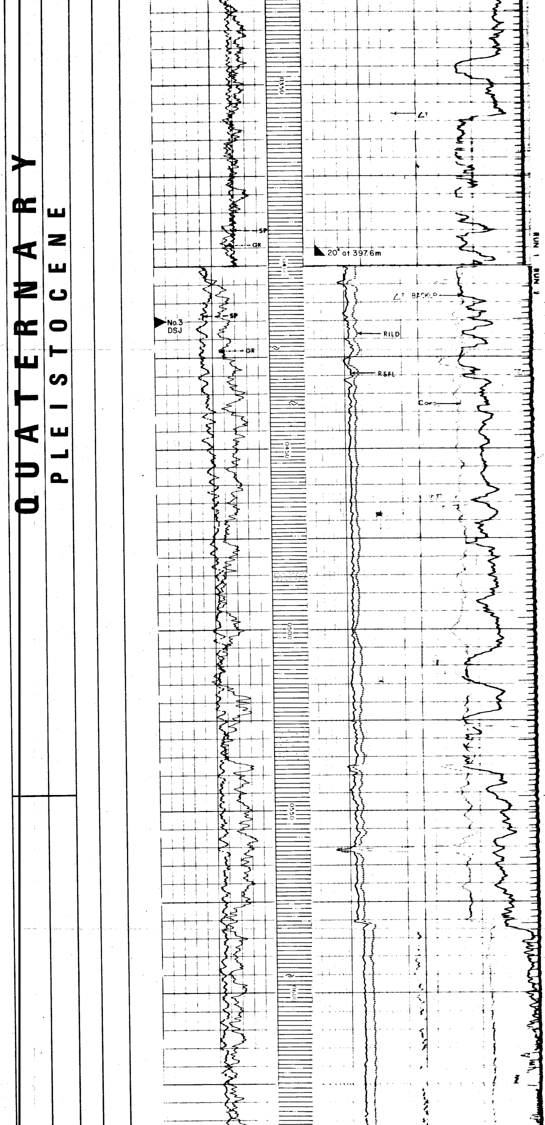
2-way time from check shots



Sand, clear-white, very fine - fine grained subangular - rounded. Loose

Clay, grey, soft, sticky, silty, slightly calcareous

T.G.: [illegible] - [illegible] units.



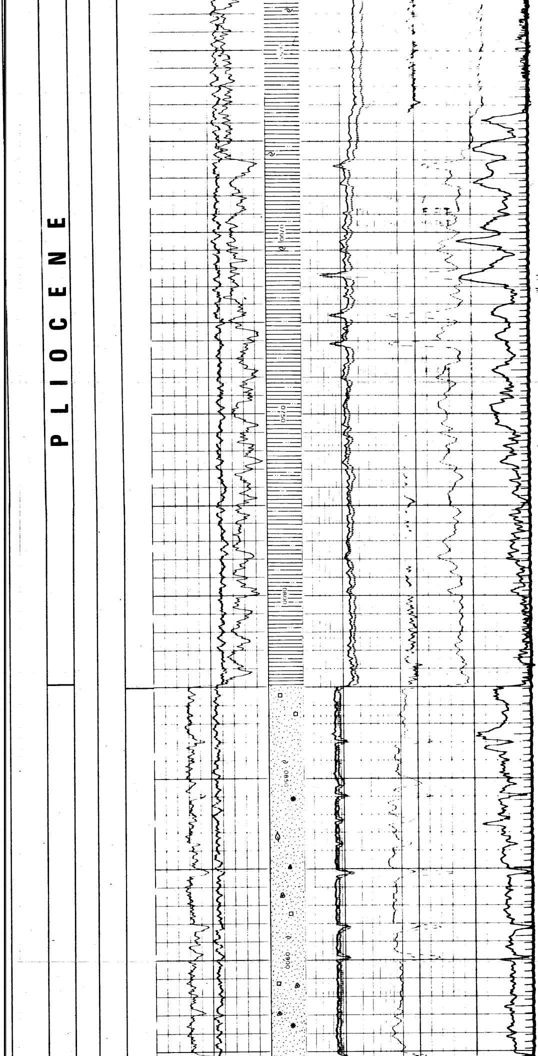
Clay, medium grey, soft, sticky, slightly silty, slightly - non calcareous.

Trace of shell fragments.

Pleistocene 5[illegible] m
Pliocene -57[illegible] m [illegible]

Shell fragments

Clay a/a



Clay, medium grey, soft, sticky,
partly silty, slightly - non calcareous.

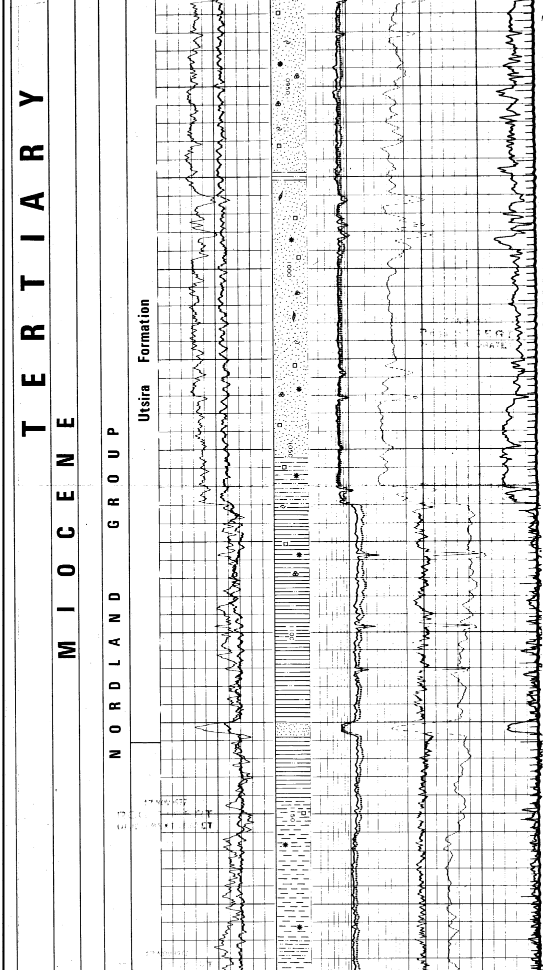
Pliocene 824 m
Miocene -799 m
0,846 sec.

Sand, clear quartz grains, fine - very fine
some silt, subrounded - rounded,
fair sorting.

Trace pyrite

Very abundant shell fragments, corals,
Bivalves, Gastropods, worm tubes,
Forams.

Trace glauconite.



Abundant shell fragments.

Sand, fine - very fine grained, subrounded - rounded, fair sorting, some coarse quartz grains, subangular - subrounded.

Trace pyrite, glauconite, rock fragments.

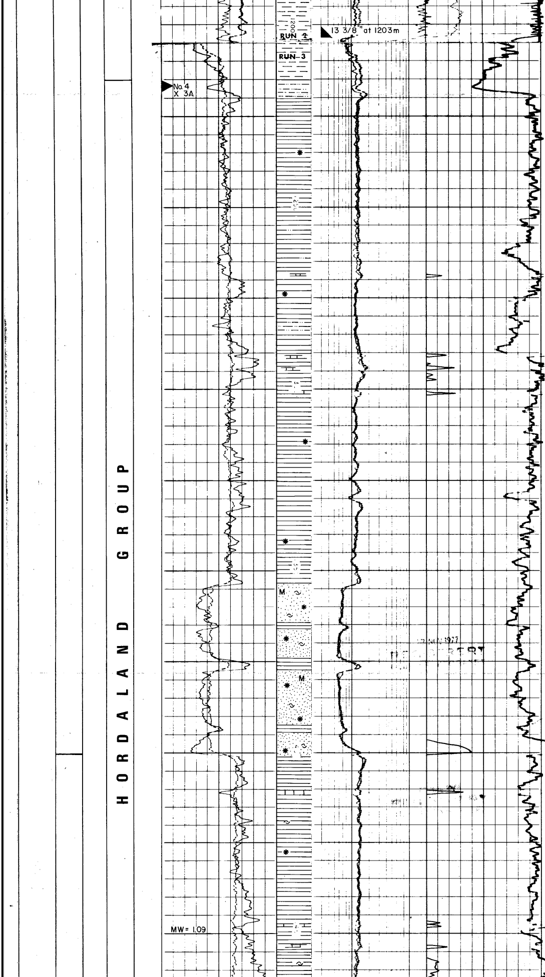
Abundant shell fragments.

Siltstone, white - light grey, light green, hard, well cemented, calcareous.

Clay - claystone, medium grey - dark, green, soft, silty, non calcareous.

Shale, medium - dark grey, brown, silty, slightly calcareous.

Some light grey-green shale in parts glauconite abundant



Claystone, medium grey - brown, silty, slightly fissile in parts, trace of shell fragments and forams glauconite

Trace of limestone, brown, very hard, crystaline

Claystone a/a

Sand, white - light grey, medium - fine, well sorted, rounded - well rounded, very glauconitic, shell fragments and mica.

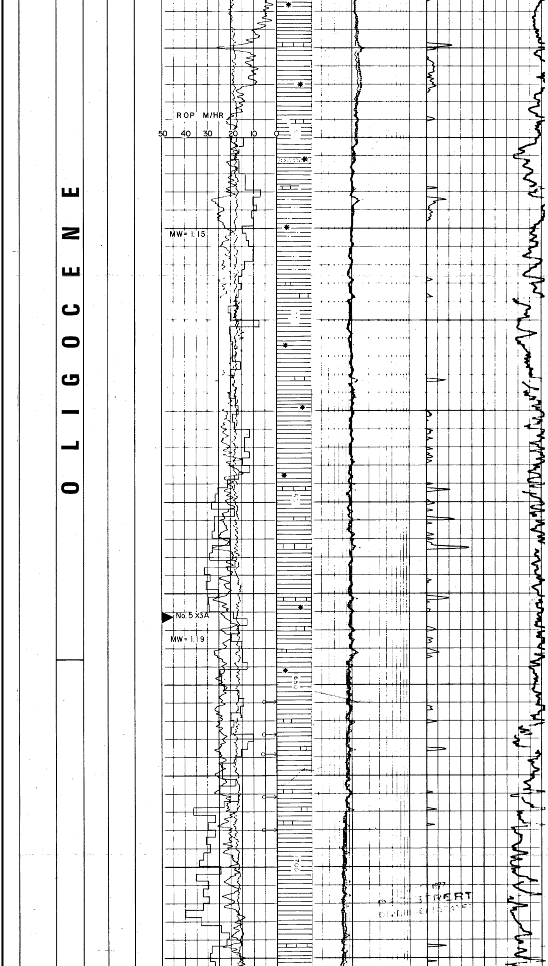
Miocene 1400 m
Oligocene -1375 m

1,421 sec.

Clay - claystone, grey - brown, soft, sticky, slightly calcareous, slightly silty.

Trace glauconite and shell fragments.

Limestone stringers, dark brown, hard - very hard.

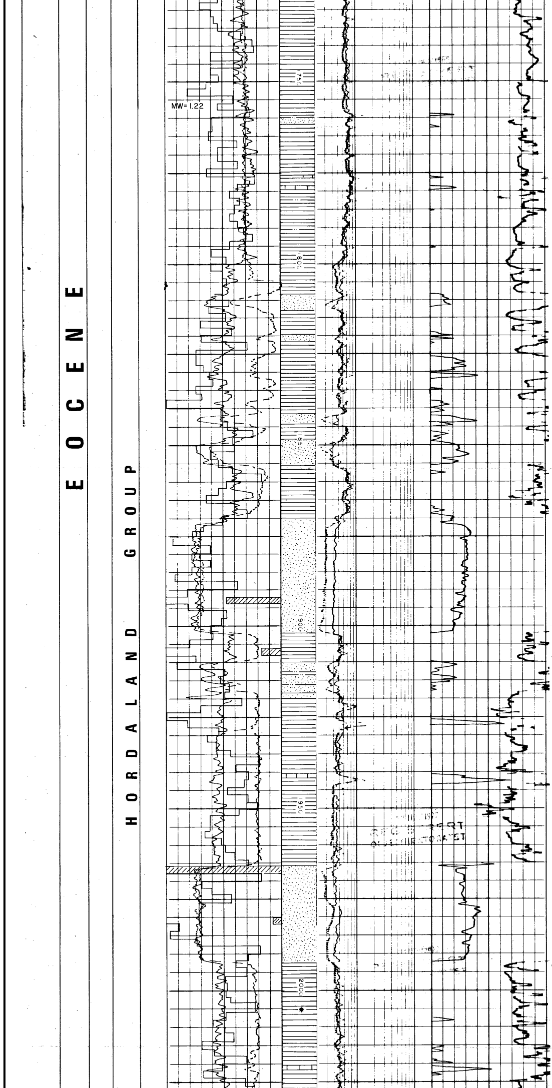


Trace of sand, medium - fine, loose, glauconitic.

Clay - claystone a/a

Oligocene 1643 m
Eocene -1618

1,642 sec.



Clay - claystone a/a

Clay - claystone, light grey - green, slightly silty, non calcareous

Sand, clear-white, fine - medium, well sorted, subangular, loose, no shows.

Trace pyrite
Trace mica

Clay, light grey-green, soft, waxy, non calcareous

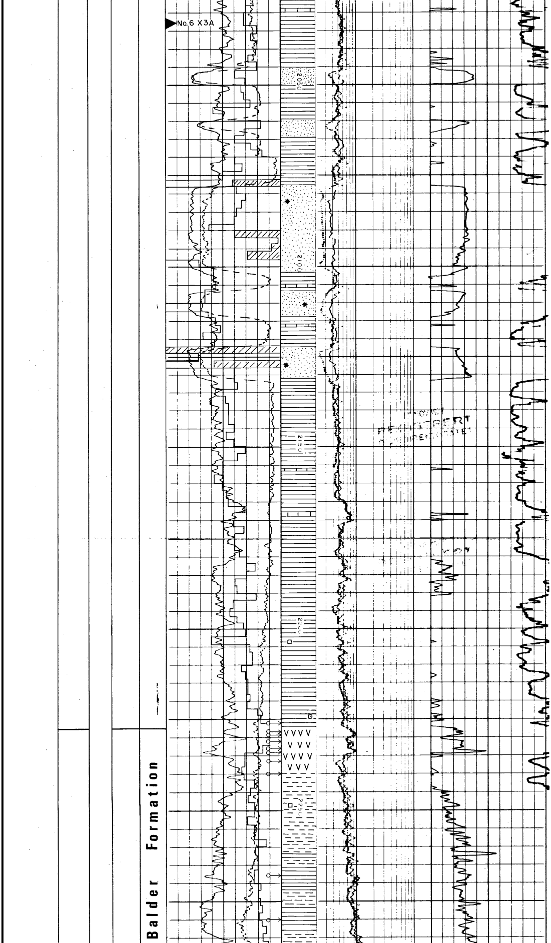
Sand a/a

Clay a/a

Limestone stringers, brown, a/a

Sand a/a

Clay, light grey - green a/a



Sand, clear-white, fine - medium,
subrounded - rounded, well sorted

Trace glauconite

Limestone stringers, brown, dolomitic, hard

Claystone, light green - light grey - brown,
soft, firm, occasionally calcareous

Limestone stringers, dolomitic a/a

Claystone, reddish brown, non calcareous

Eocene 2227 m

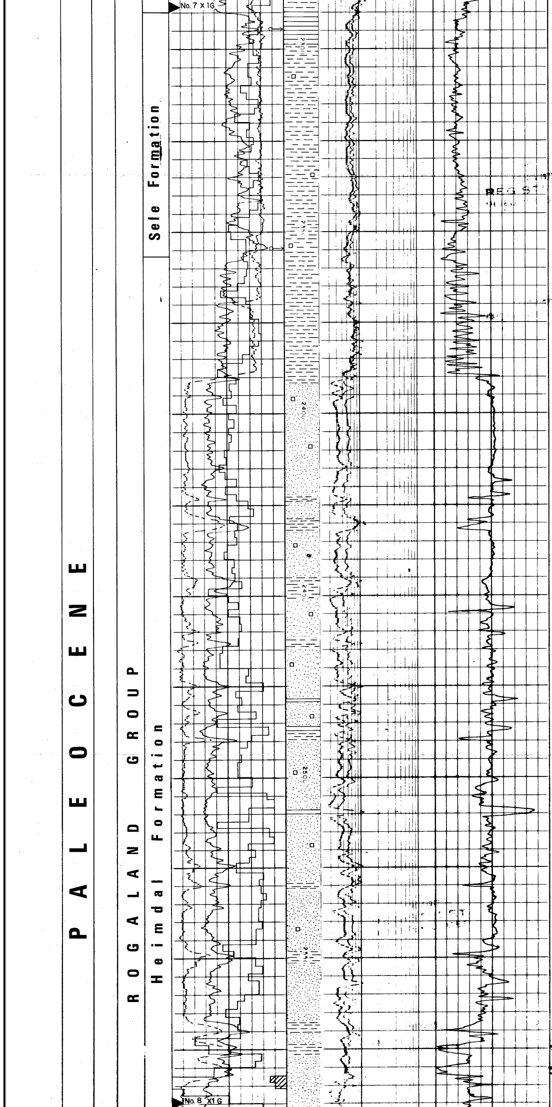
2,140 sec.

Paleocene -2202 m

Tuff, light grey with white and black spots,
soft, calcareous

Limestone, light brown, hard

Trace of pyrite



Shale, light - medium grey - dark grey, a/a

Sand, clear quartz, very fine - coarse,
fair sorted, rounded, loose

Tr pyrite

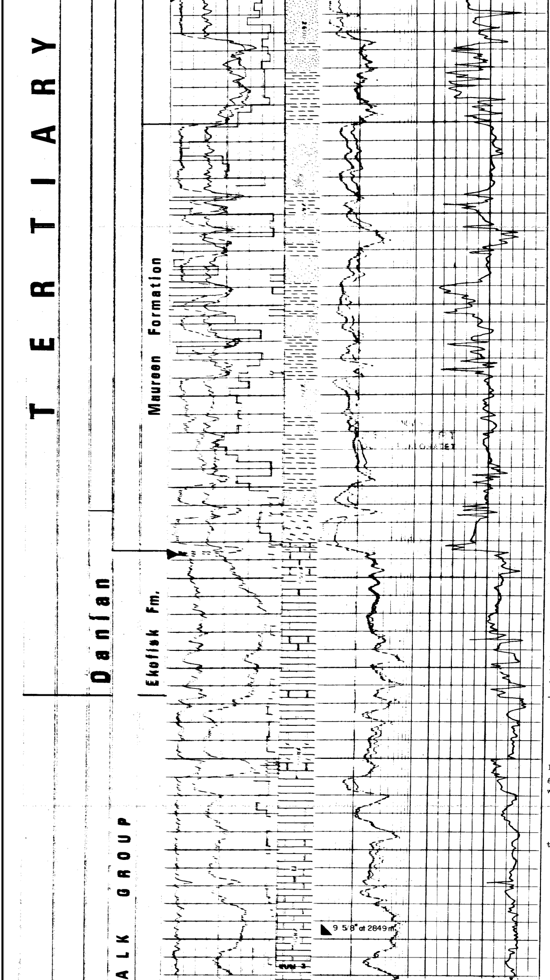
Shale stringers, shale a/a

Limestone stringers, white - light brown,
moderate hard

Sand a/a

Shale, light medium grey- greenish grey,
firm, partly silty

Sand a/a



Shale a/a

Sand clear quartz, fine - coarse, mostly medium coarse, subrounded - rounded, loose

Shale a/a

interbedded with sand a/a

Paleocene 2732 m
Danian Marl -2707 m
2.475 sec.

Marl, light grey - white, soft - firm

Danian Marl 2742,5 m
Danian chalk -2717,5 m
2,484 sec.

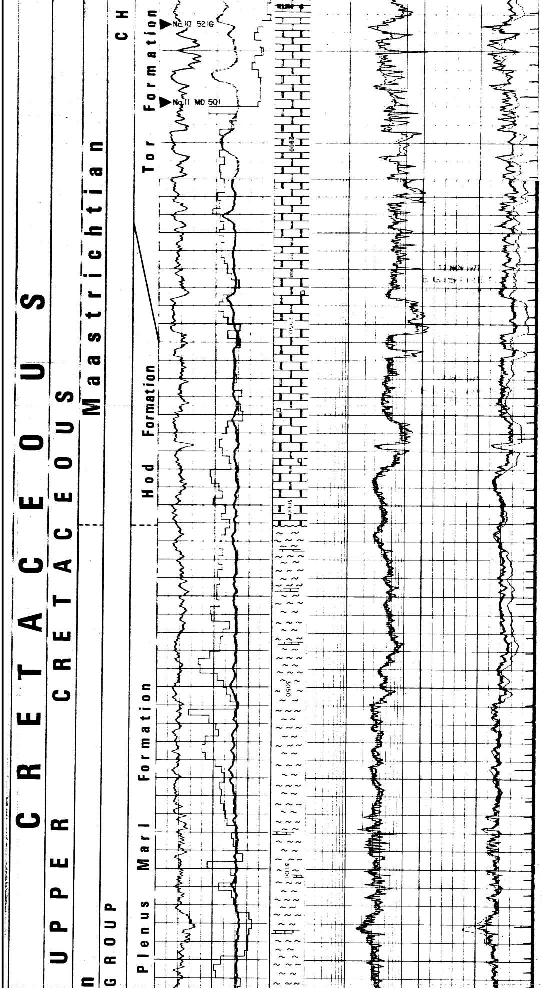
Chalk, white, firm - hard, micritic

Limestone, white - buff, very light grey in parts, hard - very hard, interbedded with chalk a/a

Danian 2783 m
Maastrichtian -2758 m
2,503 sec.

Limestone a/a, white, occasionally very light grey - buff, interbedded with chalky limestone, white, firm - hard, micritic

tr pyrite



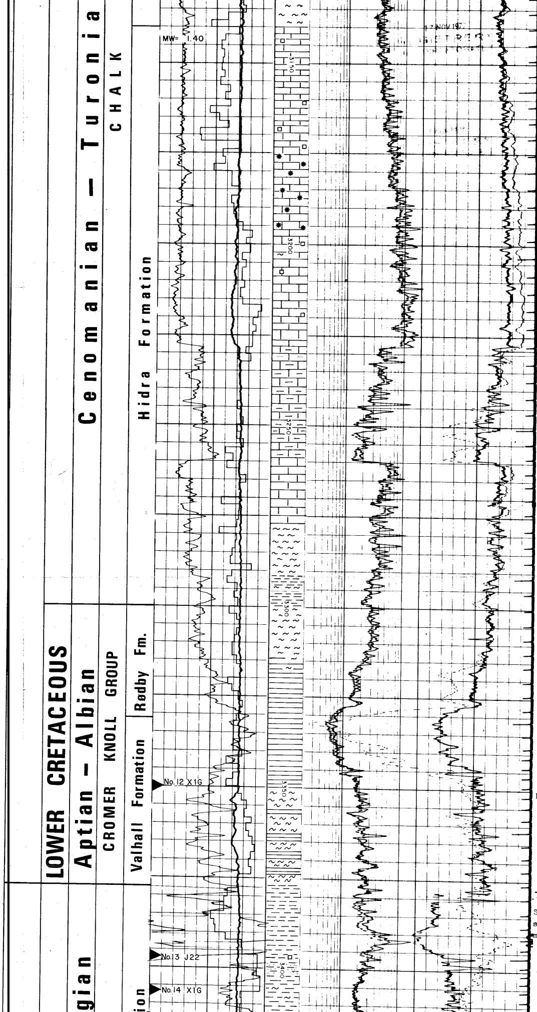
Chalk a/a

Marl, medium brown - pale red, soft, slightly silty

Interbedded with thin limestone stringers, brown - red, moderate hard, argillaceous, micritic

Marl, white - light grey a/a

Marl, light grey - pink, soft - firm, interbedded with thin limestone stringers, light grey - pink, hard - very hard



Tr pyrite

Limestone a/a,
very glauconitic

Limestone, white - light grey, firm,- very hard

Limestone, grey - dark grey, hard - very hard,
strongly argillaceous

Marl, medium dark grey, hard - very hard,
in parts, light grey, soft - firm

Shalestringers, light grey - dark grey,
light green, soft, moderate hard

Upper Cretaceous 3300 m
Lower Cretaceous -3275 m
2,735 sec.

Claystone, brick red, hard, slightly
calcareous

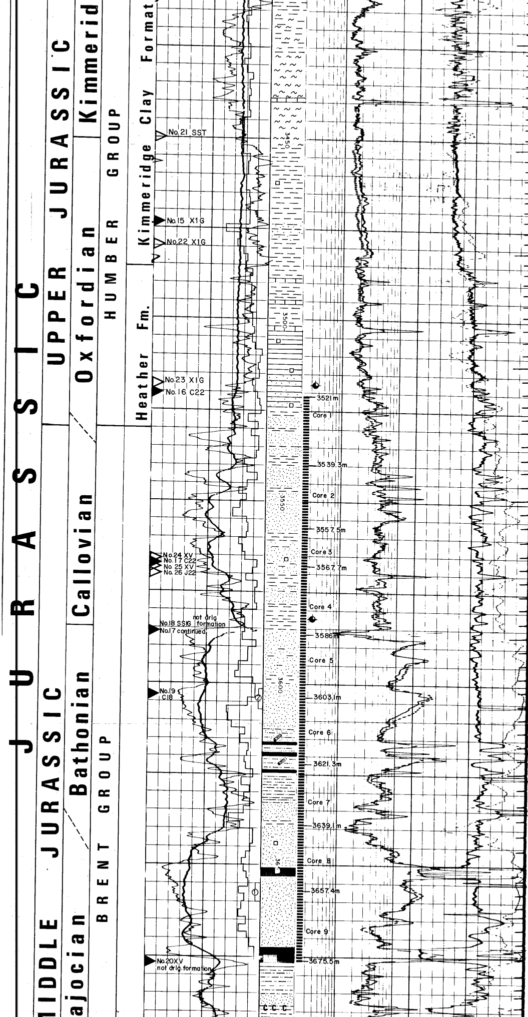
3327 m
-3302 m
2,746 sec.

Marl, light grey - light brown

L. Cretaceous 3377 m
U. Jurassic -3352 m
2,782 sec.

Shale, dark grey - light brown, soft,
slightly calcareous, high content of organic
material. Becoming dark and firm

Trace sand, white - clear, loose



Marl, a/a

Limestone stringers, light - medium grey brown, partly argillaceous, firm - hard

SIDETRACKING FROM 3450 m

LOGS FROM SIDETRACKED HOLE

CORES FROM ORIGINAL HOLE

Shale a/a

Limestone stringers a/a

Claystone, black - dark grey, hard, very pyritic, non calcareous

For details: see Core Descriptions

U. Jurassic 3530 m

M. Jurassic -3505 m

2,882 sec.

Sandstone, pale yellow brown, very fine quartz grains, fair sorted, subangular - subrounded, hard - very hard, wood fragments abundant, poor - fair porosity

Sandstone a/a
grain size increase from very fine - medium coarse

Sandstone, pale yellow brown, very fine - fine, friable - moderate hard, fair sorted, Mica, coal and clay in irregular lamina
Pale yellow fluor, strong odor, bleeding gas

Siltstone, medium grey, sandy, very hard, with some coal lamina and wood fragments
Poor fluor and cut

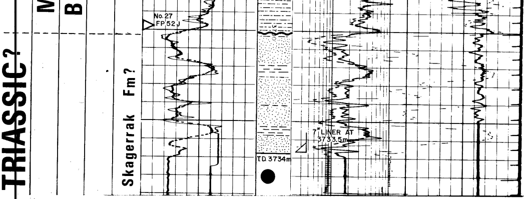
Sandstone a/a

Sandstone, light olive grey, very fine - coarse, friable, subangular - subrounded, partly hard

Coal, black massive, mature

Sandstone, pale brown, very fine - medium coarse, fair - poor sorted, subangular - subrounded, friable-loose , excellent gold fluor, fast yellow-white cut fluor, brown stain throughout

Coal a/a



Jurassic 3701 m
Triassic -3676 m

2,974 sec.

Sand, white, hard, fine - very fine, subangular - subrounded
Shale, brown, hard, silty

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REGISTRERT
OLJEDIREKTORATET

DST 2 (3602 - 3607 m RKB)

Choke : 1"
Oil rate : 812 STBOPD
Gas rate : 736×10^3 Sm^3/D
GOR : 906 Sm^3/STB
ρ gas : 0,703 (rel. to air)
ρ oil : 45,4° API

DST 1 (3655 - 3660 m RKB)

Choke : 3/4"
Oil rate : 1330 STBOPD
Gas rate : $40{,}2 \times 10^3$ Sm^3/D
GOR : 30,2 Sm^3/STB
ρ gas : 0,738 (rel. to air)
ρ oil : 26° API

Caution: Due to foam problems it is very difficult to provide valid separator data. Present analysis indicate that the oil rate above probably represent a maximum, and that the GOR could be much higher.
This high GOR is probably explained by simultaneous production of an oil zone and a gas zone.