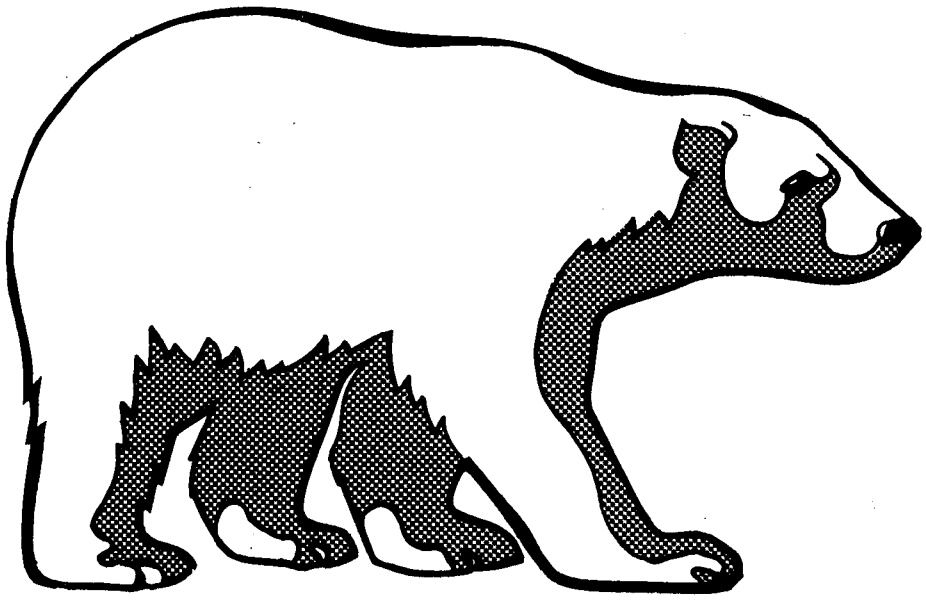
***EXPLORATION AND PRODUCTION DIVISION***

statoil

***EXPLORATION DEPARTMENT***

***HARSTAD DISTRICT***



# COMPLETION REPORT
# WELL 6610/7-1
# PL 084

Norsk Agip A/S

elf aquitaine

PL 084

STATOIL/ELF/AGIP

COMPLETION REPORT

WELL 6610/7-1

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REPORT RESPONSIBILITY:
BOR: T. Hellstrand
UND: M. Larsen

# I GENERAL INFORMATION

# I GENERAL INFORMATION

## 1. Well data record:

| | | |
|---|---|---|
| a) | Well designation: | 6610/7-1 |
| b) | Well classification: | Wildcat |
| c) | Well location: | Beta structure, block 6610/7 |
| I) | Country: | Norway, Trænabanken |
| II) | License: | PL 084 |
| III) | Latitude: | 66° 17' 32.82"N |
| | Longitude: | 10° 16' 52.92"E |
| VI) | Seismic location: | Shotpoint no. 2439 |
| | | Line no. NH 81-02-431 |
| V) | Water depth: | 265 m |

d) Rig data

| | | |
|---|---|---|
| I) | Rig name: | Neptuno Nordraug |
| II) | RKB - MSL: | 25 m |

## 2. Purpose of well

Well 6610/7-1 was located on a tilted fault-block in the southeasten corner of the block (Beta-structure). A SW-NE trending fault bounds the structure to the NW.

The purpose of the well was generally to gather information about the hydrocarbon potential and stratigraphy of the Helgeland Basin. The main objectives of the well were sandstones of Middle to Lower Jurassic age.

## 3. Results of the well

Hydrocarbon shows were observed on cuttings and cores in Lower Jurassic sandstone beds and sandstone stringers from 2657.5 m to 2714 m below KB. Electrical logs showed, however, the well to be waterbearing.

4. Well history:

a) General:

| | | |
|---|---|---|
| I) | Spud date: | 18 April 1983 |
| II) | Rig released: | 19 June 1983 |
| III) | Status: | Plugged and abandonned as a dry well with oil shows |

b) Contractors:

| | | |
|---|---|---|
| I) | Drilling platform: | Neptuno Nordraug |
| II) | Drilling Contractor: | Ross Drilling Co. A/S |
| III) | Cementing: | B.J. Hughes |
| IV) | Casing: | Stavanger Casing Crew |
| V) | Electric logging: | Schlumberger |
| VI) | Mud logging: | Norsk Petroleum Services A/S |
| VII) | Mud contractor: | Anchor Drilling Fluid A/S |
| VIII) | Supply boats: | Black Ice, Stad Sky, Stad Suplier |
| IX) | Helicopters: | Helikopter Service A/S |
| X) | Rig position contractor: | Geoteam A/S |
| XI) | Diving: | Scandive A/S |
| XII) | Conventional coring: | Scan Core |
| XIII) | Core analysis: | Geco |
| XIV) | Paleodating: | IKU |

c) Casing:

| | | | Formation integrity tests: (equiv. mud weight) |
|---|---|---|---|
| I) | 30" | at 353 m | |
| | 20" | at 801 m | 1.46 g/cc |
| | 13 3/8" | at 1252 m | 1.74 g/cc |
| | 9 5/8" | at 2097 m | 1.76 g/cc |
| | TD at 3333 m | | |

d) Conventional coring:
Core description are attached

| Core No. | Interval (m) Drillers depth | Recovered (m) | Rec. % |
|---|---|---|---|
| 1 | 2183 - 2201.5 | 17.6 | 95 |
| 2 | 2661 - 2676.5 | 16 | 97 |
| 3 | 2677.5-2687 | 9 | 95 |
| 4 | 2706 - 2725.17 | 19.7 | 100 |

e) Sidewall coring
144 samples of 162 shots were recovered. Sample descriptions are attached.

f) Mud logging services supplied

I) Type of service
MWD 1000

II) Equipment
Tape data recording
XY plotter printer
CRT display
Engineering programmes
Chromatograph
$H_2S$
Mud density
Hours on bit
FID Gas detector
Torque
Pit vol. total
Pressure/flow
WOB/RPM
Pump Stroke speed/counters
Mud conductivity
Show evaluation
Formation density
Formation factor
Calcimetry

III) Sampling gathering

Wet samples:
6 sets at 10 m intervals to 2000 m
6 sets at 3 m intervals to 3333 m

Dry samples:
2 sets at 10 m intervals to 2000 m
2 sets at 3 m intervals to 3333 m

Canned samples:
1 set at 30 m intervals to TD.

g) Electrical Logging; Schlumberger:

| Type of log | Run no. | Interval (m RKB) |
|---|---|---|
| ISF/SONIC-SP-GR | 1 | 353 - 813 |
| ISF/SONIC-SP-GR | 2 | 801 - 1258 |
| ISF/SONIC-SP-GR | 3 | 1251 - 2112.5 |
| ISF/SONIC-MSFL-SP-CAL-GR | 4 | 2098 - 2921 |
| ISF/SONIC-MSFL-SP-CAL-GR | 5 | 2915 - 3328 |
| LDL-PEF-CAL-GR | 1 | 353 - 814 |
| LDL-PEF-CAL-GR | 2 | 801 - 1259 |
| LDL-PEF-CAL-GR | 3 | 1251 - 2108 |
| LDL-CNL-PEF-CAL-NGS | 4 | 2098 - 3329 |
| HDT | 1 | 801 - 1260 |
| HDT | 2 | 1251 - 1920 |
| S-HDT | 3 | 2098 - 3329 |
| CST | 1 | 1583 - 2108 |
| CST | 2 | 1260 - 1570 |
| CST | 3 | 3053 - 3325 |
| CST | 4 | 2876 - 3045 |
| CST | 5 | 2850 - 3000.1 |
| CST | 6 | 2470 - 2876 |
| CST | 7 | 2117 - 2450 |
| CBL/VDL-GR | 1 | 550 - 1245 |
| CBL-VDL-GR | 2 | 290 - 2092 |
| RFT-GR | 1 | 1293.6-1304 |
| RFT-GR | 2 | 2659 - 3111 |

h) Velocity survey:

The Velocity survey/VSP was conducted by Schlumberger. (97 levels in the interval 510 - 3330 m KB.)

# II GEOLOGICAL REPORT

GEOLOGICAL REPORT

1. Stratigraphical Summary

Table of Chronostratigraphy (IKU)

| Depth (m KB) | Stratigraphy | Minimun thickness (m) |
|---|---|---|
| 360 - 460 | Pleistocene | 100 |
| 460 - 870 | Pliocene | 410 |
| 890 - 960 | Indeterminate | 70 |
| 960 - 1100 | Middle-Early Eocene | 140 |
| 1100 - 1320 | Paleocene | 220 |
| 1325 - 1332 | ?Paleocene | 7 |
| 1335 - 1345 | Maastrichtian | 10 |
| 1363 - 1616 | Campanian | 253 |
| 1620 - 1701 | Late Albian | 81 |
| 1720 - 1820 | Albian-Aptian | 100 |
| 1830 - 1878 | Aptian | 48 |
| 1880 - 1977 | Barremian | 97 |
| 1990 - 2174 | Early Barremian-Hauterivian | 184 |
| 2183.45-2264 | Valanginian | 80 |
| 2264 - 2270 | Early Valanginian | 6 |
| 2270 - 2273 | Ryazanian-Late Volgian | 3 (max) |
| 2273 - 2282 | Volgian? | 10 |
| 2287 - 2313 | Oxfordian | 26 |
| 2335 - 2360 | Early Oxfordian-Callovian | 25 |
| 2378 - 2411 | Early Callovian-?Late Bathonian | 33 |
| 2423 - 2490 | Bathonian | 67 |
| 2507 - 2549 | Early Bajocian-Late Toarcian | 42 |
| 2570 - 2671.10 | Late Toarcian | 101 |
| 2676.71-2695 | Toarcian (?Early) | 18 |
| 2706 - 2768.5 | Late Pliensbachian | 62 |
| 2768.5-3000 | Pliensbachian (?Early) | 231 |
| 3000.1-3089 | Early Pliensbachian | 89 |
| 3107 - 3333 (TD) | Rhaetian | 226 |

## 2. DESCRIPTION OF LITHOLOGY THROUGH THE WELL

LITHOLOGY description is based on cutting- and core-descriptions from the rig.

PERIOD, EPOCH, INTERVAL and DEPOSITIONAL ENVIRONMENT are all taken from the biostratigraphical report.

a) Summary

PERIOD : QUATERNARY
EPOCH : HOLOCENE(?)-
PLEISTOCENE
INTERVAL: 290-460 m KB
Described from 355 m

Lithology:

Clay with sandstringers.

The clay is light gry, soft, sticky and slightly calcareous.

The sands consists of clear, occasionally white and yellow brown quartz, fine to very coarse grained, partly granules and are angular to rounded and moderately sorted.

Minor quartzite-, mica schist-, amphibolite- and granitefragments are also present together with traces of shellfragments and pyrite.

Depositional environment

These sediments are deposited in marine inner neritic-littoral, glacial to interglacial environments.

PERIOD : TERTIARY
EPOCH : PLIOCENE
INTERVAL: 460-870 m KB

## Lithology

Clay with sandbeds down to 600 m and clay with minor sandstringers below.

The descriptions of the lithological elements are as for the above interval.

## Depositional environment

Down to 600 m an inner shelf to nearshore environment is suggested while the sediments below are deposited in a deeper neritic environment.

PERIOD : TERTIARY
EPOCH : INDETERMINATE
INTERVAL: 870-952 m KB

## Lithology

Interbedded sands and clays.

The clay is light to medium grey, predominantly soft, sticky and non to slightly calcareous.

The sand which is glauconitic consists of fine to coarse occational granular clear to yellow brown quartz which is angular to rounded.

There are traces of rock- and shellfragments.

## Depositional environment

Down to 890 m the environment is the same as for the above interval. For the rest og the interval no positive environmental indicators are available. Circumstantial evidence might imply a deltaic to marginal marine or littoral environment.

PERIOD : TERTIARY
EPOCH : MIDDLE-EARLY EOCENE
INTERVAL: 952-1100 m KB

## Lithology

Clay/claystone.

The claystone is predominantly light to medium grey and green grey. In the top and at the base some of the claystones are brownish grey. At the base some red brown claystones also appear. The claystones are soft to firm and non to slightly calcareous.

Traces of mica, pyrite, glauconite and sandgrain are also observed.

## Depositional environment

The faunal evidence points to a fully marine environment at deep neritic to bathyal depth. The abundance of siliceous fossils and dinoflaggelate cysts suggest normal open marine conditions.

PERIOD : TERTIARY
EPOCH : PALEOCENE
INTERVAL: 1100-1332/1335 m KB

## Lithology

Claystone, tuffeaceous in parts with sandstone stringers and sandstone beds.

The upper part of the interval comprises medium to dark grey, greyish black and brownish grey, firm, non to slightly calcareous claystones. Towards the base the claystones are becoming light grey and green grey.

Minor amounts of light brown to light grey, friable siltstone are also present.

Within the upper part of Paleocene a certain content of tuff has been recorded.

Towards the base of the interval, medium to coarse, subangular to subrounded glauconitic sandbeds are present.

Just above the base of the interval trace of red brown claystone was seen.

Traces of limestone, pyrite and glauconite have been observed.

## Depositional environment

The upper part of the interval is suggested to have been deposited under fully marine, deep neritic to bathyal conditions. This is grading through a deep littoral environment to an inner neritic-littoral environment towards the base of the interval.

Remarks

The interval 1320-1325 m is indeterminately dated and for the interval 1325-1332 m ?Paleocene is suggested. Also the interval 1332-1335 m is indeterminately dated, but might from log shape be included into Paleocene.

PERIOD : CRETACEOUS
EPOCH : UPPER CRETACEOS
(Maastrichtian)
INTERVAL: 1335-1345 m KB

Lithology

Claystone with trace sand.

The claystone is medium to dark grey, soft to firm and calcareous and is occationally grading to siltsone.

Trace amounts of fine to coarse sand, limestone and glauconite were described.

Environment of deposition

A marine outer neritic environment with open circulation of surface water is indicated.

PERIOD : CRETACEOUS
EPOCH : UPPER CRETACEOUS
(Indeterminate)
INTERVAL: 1345-1363 m KB

A lithology similar to the one described for Maastrichtian above was encountered. Depositional environment compatible with the Campanian environment described below is suggested.

PERIOD : CRETACEOUS
EPOCH : UPPER CRETACEOUS
(Campanian)
INTERVAL: 1363-1620 m KB

## Lithology

Claystone with minor limestone/dolomite stringers.

Lithologically, no obvieous difference was noted between Maastrichtian and Campanian.

The claystone is light to medium dark grey, soft to firm and non to very calcareous. Traces of brownish red claystone were occationally noted.

Minor amounts of white limestone and light to dark brown dolomite are also present.

Traces of shellfragments, mica, glauconite and pyrite were observed.

## Depositional environment

A marine inner to outer neritic site of deposition with open surface circulation is proposed.

## Remarks

The paleodating of the interval 1610-1620 m is inderminate, but might from log shape be included in Upper Cretaceous.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Late Albian)
INTERVAL: 1620-1701 m KB

Lithology

Claystone with minor stringers of limestone and dolomite.

The claystone is predominantly light to medium dark grey. It is soft to firm and calcareous to very calcareous.

The dolomite is light to dark brown and hard whilst the limestone is white and firm.

Trace amounts of glauconite, pyrite and shellfragments are described.

Depositional environment

Deposition in a marine inner neritic environment with open surface circulation is indicated.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Indeterminate)
INTERVAL: 1701-1720 m KB

Lithology and site of deposition are similar to the above interval.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Albian-Aptian)
INTERVAL: 1720-1820 m KB

Lithology

Claystone with minor limestone and dolomite stringers.

The claystone is light to dark grey, soft to firm and slightly to very calcareous. Towards the base of the interval traces of a brick red to red brown, soft and slightly silty claystone are seen.

The limestone is white and firm and the dolomite is light to dark brown and firm to hard.

Trace of glauconite, pyrite and siderite have been described.

Depositional environment

As for the above interval.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Indeterminate)
INTERVAL: 1820-1830 m KB

Lithology and depositional environment are similar to the above interval.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Aptian)
INTERVAL: 1830-1878 m KB

Lithology

Claystone with stringers of limestone and dolomite.

The claystone is light to medium dark grey, occationally greenish, soft to firm, slightly to very calcareous and occationally silty. Traces of the red brown claystone described in the above interval prevails through this section.

The limestone, dolomite and traces are as for the interval above.

Depositional environment

A shallow marine, inner neritic environment with open surface circulation is suggested from paynological and micropaleontological data.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Indeterminate)
INTERVAL: 1878-1880 m

Both lithology and environment of deposition are comparable to the above interval.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Barremian)
INTERVAL: 1880-1977 m KB

Lithology

Claystone with stringers of limestone, dolomite and siltstone.

The claystone is light to medium dark grey occationally grading to brownish grey, occationally fissile and silty and is slightly to very calcareous. It is followed by small amounts of reddish brown claystone.

The siltstone is light grey, occationally red brown, calcareous and soft to friable.

The limestone is white to grey, occationally brown and microcrystalline. The dolomite is light to dark brown and hard.

Traces of pyrite, glauconite and fossil fragments are also present.

Depositional environment

The upper part of the interval has a depositional site similar to the interval above. A shallowing to inner neritic to littoral (near shore/shoreface) is suggested towards the base of the interval.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Indeterminate)
INTERVAL: 1977-1990 m KB

Lithology and site of deposition are similar to the lowermost part of the above interval (Barremian)

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Early Barremian/
Hauteriavian)
INTERVAL: 1990-2174 m KB

## Lithology

Claystone with minor limestone, dolomite and sandstone stringers.

The claystone is light to medium dark grey, brownish grey and occationally light green grey. It is firm to soft, occationally fissile, slightly to very calcareous and silty in parts. Rare traces of red brown claystone are seen.

The dolomite and limestone are as described above.

Towards the base of the interval thin beds of very fine to very coarse, loose to moderately hard, poor to moderately sorted sandstone are observed.

Traces of shellfragments and pyrite are also encountered.

## Depositional environment

Shallow water shelf conditions in the upper part and probably littoral, though marine, downwell from opproximately 2150 m as reflected by coarse detritus are proposed.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Indeterminate)
INTERVAL: 2174-2183.5 m KB

Lithology

Sandstone with claystone beds.

The sand/sandstone is predominantly very fine, but occationally coarse and it is loose to friable and glauconitic.

The claystone is as described above.

Depositional environment

A depositional site comparable to the lowest part of the above interval is proposed.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Valanginian)
INTERVAL: 2183.5-2264 m KB

## Lithology

Sandstone in the top part grading into siltstone and marly claystone downwell.

The sandstone is as described above.

The siltstone is medium grey to grey brown, firm, blocky and with sand lamina.

The marly claystone is white grey to pale grey, occationally green grey, soft and sticky.

Trace amounts of limestone and pyrite are observed.

## Depositional environment

A shallow shelf environment with moderate energy conditions is suggested. Around 2200 m, an inshore depositional environment is indicated.

PERIOD : CRETACEOUS
EPOCH : LOWER CRETACEOUS
(Early Valanginian)
INTERVAL: 2264-2270 m KB

Lithology

Marly claystone as described in the above interval with traces of sand.

Depositional environment

Normal marine neritic conditions with open circulation of surface water are proposed.

PERIOD : JURACCIS/CRETACEOUS
EPOCH : LOWER CRETACEOUS/
UPPER JURASSIC
(Ryazian-Late
Valanginian)
INTERVAL: 2270-2273 m KB

Lithology

Claystone.

The claystone is dark brown to grey, soft to firm, blocky, slightly calcareous and slightly silty.

Depositional environment

An open normal marine surface circulation with restriction in bottom water conditions and possibly anaerobic, stagnant bottom waters is suggested.

PERIOD : JURASSIC
EPOCH : UPPER JURASSIC
(Volgian?)
INTERVAL: 2273-2283 m KB

Lithology

Claystone.

The claystone is dark brown and dark grey to black. It is blocky to subfissile, micromicaceous, non-slightly calcareous and occationally carbanaceous.

Traces of cream coloured soft limestone and pyrite are seen.

Depositional environment

As for the above interval.

PERIOD : JURASSIC
EPOCH : UPPER JURASSIC
(Indeterminate)
INTERVAL: 2283-2287 m KB

The descriptions of lithology and environment of deposition for the above interval are applied for this interval.

PERIOD : JURASSIC
EPOCH : UPPER JURASSIC
(Oxfordian)
INTERVAL: 2287-2313 m KB

Lithology

Lithologies in this interval are similar to those of the interval above. Dark grey, dark brownish grey to black fissile claystone.

Depositional environment

Marin in-shore conditions not far from the source of terrestrial debris and open circulation of surface waters with restrictions in bottom water circulation are proposed.

PERIOD : JURASSIC
EPOCH : UPPER/MIDDLE JURASSIC
(Indeterminate)
INTERVAL: 2313-2335 m KB

## Lithology

Claystone with thin limestone stringers.

The claystone in the upper part of the interval is dark grey and dark brown similar to the claystone in the above interval.

The claystone in the lower part of the interval is dark brown to dark grey to medium grey, soft to firm, blocky and slightly calcareous.

The limestone is white to dark brown and soft to very hard.

Traces of pyrite and very fine sand are observed.

## Depositional environment

The upper part of the interval has a site of deposition similar to the above interval and the lower part of the interval is deposited in an environment comparable to the interval below.

PERIOD : JURASSIC
EPOCH : UPPER/MIDDLE JURASSIC (Early Oxfordian-Callovian)
INTERVAL: 2335-2360 m KB

Lithology

Claystone with limestone stringers.

The claystone is medium to dark brown, light to dark grey, soft to firm and slightly calcareous to calcareous.

The limestone is white to pale brown and soft to very hard.

Traces of pyrite and dolomite were encountered.

Depositional environment

A shallow shelf marine environment, possibly tending towards inshore lagoonal conditions, is indicated.

PERIOD : JURASSIC
EPOCH : UPPER/MIDDLE JURASSIC (Indetermintae)
INTERVAL: 2360-2378 m KB

Both lithology and environment of deposition are similar to the above interval.

PERIOD : JURASSIC
EPOCH : MIDDLE JURASSIC
(Early Callocian-
?Late Bathonian)
INTERVAL: 2378-2411 m KB

Lithology

Claystone with minor limestone/dolomite stringers.

The claystone is predominantly pale grey to white grey, but occationally dark grey. It is soft to firm, subfissile and calcareous.

The limestone/dolomite is buff to pale brown and firm to hard.

Traces of pyrite are also described.

Depositional environment

Similar conditions to the above interval, though a slight increase in water depth or marine influence is suggested.

PERIOD : JURASSIC
EPOCH : MIDDLE JURASSID
(Indeterminate)
INTERVAL: 2411-2423 m KB

The description of the lithology is similar to the one in the above interval. For the upper part it is suggested a depositional environment similar to the interval above and for the lower part a depositional environment comparable to the interval below.

PERIOD : JURASSIC
EPOCH : MIDDLE JURASSIC
(Bathonian)
INTERVAL: 2423-2490 m KB

Lithology

Claystone.

The claystone is predominantly pale grey, soft, slightly silty and non calcareous-calcareous in the top part becoming medium to dark grey, firm to moderately hard and fissile towards the base of the interval.

Traces of buff to pale brown, firm to hard limestone/dolomite and pyrite are seen throughout the interval.

Depositional environment

Shallow, inshore possibly lagoonal conditions are suggested.

PERIOD : JURASSIC
EPOCH : MIDDLE/LOWER JURASSIC
(Indeterminate)
INTERVAL: 2490-2507 m KB

Both lithology and environment of deposition are similar to the bottom part of the above interval.

PERIOD : JURASSIC
EPOCH : MIDDLE/LOWER JURASSIC
(Early Bajocian-
Late Toarcian)
INTERVAL: 2507-2549 m KB

Lithology

Claystone with minor siltstone beds.

The claystone is light to dark grey occationally grey brown, soft, non to slightly calcareous and occationally fissile.

The siltstone is medium grey to grey brown and friable to moderately hard.

There are traces of soft to firm limestone/dolomite, very fine sandstone and pyrite.

Depositional environment

Shallow marine environments as in the above interval with close proximity to a vegetated shore are proposed.

PERIOD : JURASSIC
EPOCH : MIDDLE/LOWER JURASSIC
(Indeterminate)
INTERVAL: 2549-2570 m KB

Both lithology and environment of deposition are similar to the above interval.

PERIOD : JURASSIC
EPOCH : LOWER JURASSIC
(Late Toarcian)
INTERVAL: 2570-2671.1 m KB

Lithology

Claystone/shale with sandstone beds towards the base.

The clastone/shale is grey to dark grey, occationally black or brown grey. It is firm to moderately hard and non to slightly calcareous. It is occationally grading to siltstone.

The sandstone is light grey to white, very fine to medium, moderately sorted, frialbe to moderately hard, slightly glauconitic and micaceous and slightly silica cemented.

Traces of white to brown soft to hard dolomite/limestone and pyrite are also observed.

Depositional environment

Shallow marine quiet conditions with good circulation of the upper water layers are suggested.

PERIOD : JURASSIC
EPOCH : LOWER JURASSIC
(Indeterminate)
INTERVAL: 2671.1-2676.7 m KB

The lithology is sandstone as described above deposited in a similar environment as described for the above interval.

PERIOD : JURASSIC
EPOCH : LOWER JURASSIC
((?Early) Toarcian)
INTERVAL: 2676.7-2695 m KB

Lithology

Shale with siltstone in the upper part.

The shale is medium brown grey, moderately hard to hard and non to slightly calcareous.

The siltstone is light to medium grey, friable, micaceous and slightly glauconitic and carbonaceous.

Traces of pyrite are observed.

Depositional environment

Shallow marine, lagoonal like conditions with possible brackish conditions at times are proposed.

PERIOD : JURASSIC
EPOCH : LOWER JURASSIC
(Indeterminate)
INTERVAL: 2695-2706.7 m KB

The upper part of the interval consists of shale as described above and the lower part consists of sandstone as described for the interval below. The same subdivision applies for the environmental description.

PERIOD : JURASSIC
EPOCH : LOWER JURASSIC
(Late Pliensbachian)
INTERVAL: 2706.7-2768.5 m KB

## Lithology

Shale interbedded with sandstone and siltstone.

The sandstone is very fine to very coarse, poor to moderately well sorted and loose to friable. It consists of predominantly subangular to subrounded quartz grains and is occationally weakly calcareous cemented.

The shale is medium grey, brownish grey and dark grey, firm to moderately hard, micromicaceous and non calcareous.

The siltstone is light to dark grey, soft to moderately hard, micromicaceous and non to slightly calcareous.

Traces of white, soft to hard limestone, kaolinite and pyrite are also observed.

## Depositional environment

A shallow marine environment close to vegetation of land plants and probably brackish water conditions at times is suggested.

PERIOD : JURASSIC
EPOCH : LOWER JURASSIC
(Pliensbachian
(?Early))
INTERVAL: 2768.5-3000.1 m KB

## Lithology

Sandstone with shale, siltstone and coal beds.

The sandstone is fine to coarse and appears loose to friable, but is occationally silica-, calcite- or kaolinite-cemented. The grains are subangular to subrounded and moderately to well sorted.

The shale is medium to dark grey, firm to moderately hard, micaceous, non calcareous and partly carbonaceous.

The siltstone is medium pale grey to dark grey to brown grey, firm to moderately hard, slightly calcareous and partly carbonaceous.

The coal is black, hard and brittle.

Traces of mica, kaolinite, pyrite and white to buff moderately hard limestone are also encountered.

## Depositional environment

A brackish to non marine environment is suggested.

PERIOD : JURASSIC
EPOCH : LOWER JURASSIC
(Early Pliensbachian)
INTERVAL: 3000.1-3089 m KB

Lithology

Sandstone with shale, siltstone and coal beds.

The sandstone is fine to very coarse, well sorted, subangular and loose to friable.

The siltstone, shale, coal and traces are as for the above interval.

Depositional environment

Non marine to brackish shallow environment is suggested.

PERIOD : JURASSIC/TRIASSIC
EPOCH : LOWER JURASSIC/
UPPER TRIASSIC
(Indeterminate)
INTERVAL: 3089-3107 m

The interval consists of medium to coarse well sorted sandstone which appears loose. The quartz grains are angular to subangular. The upper part of the interval is deposted in an environment similar to the one described above while a non marine environmental description is applicable to the lower part.

PERIOD : TRIASSIC
EPOCH : UPPER TRIASSIC
(Rhaètian)
INTERVAL: 3107-3333 m KB

Lithology

Sandstone interbedded with shale and in the upper part also coal.

The sandstone has fine to coarse, angular to subangular grains, is clear, green, grey and white coloured and is poor to fair sorted. It is loose to moderately hard and is occationally silica or calcareous cemented.

The shale in the upper part of the interval is medium to dark grey, black and brown, silty, carbonaceous and non to slightly calcareous.

The shale from below 3234 m is red brown, brick red, purple and light to dark grey, It is soft to hard, micromicaceous, silty and non to slightly calcareous.

The coal is hard and brittle.

Traces of white to light brown, firm to hard limestone and pyrite, kaolinite and mica are also observed.

Depositional environment

A non marine, possibly brackish to deltaic (at 3299 m), environment close to shore is suggested.

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Del-system ID AV
Operatør 20
Dokument comp.rep.084
Bestilt 83/12/09 10 17 04
Formatert 83/12/09 10 17 07

Del-system ID AV
Operatør 20
Dokument comp.rep.084
Bestilt 83/12/09 10 17 04
Formatert 83/12/09 10 17 07
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# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HELLE/OPSTAD/KLEIVEN DATE: 21.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 360 | 90 | CLY: LT GRY, SFT, STCKY, SL CALC, PARTLY SLTY, OCC W/ROCK FRAGS | HIGH % OF CEMENT |
| | 10 | SD: CLR-WH QTZ, V FN-V CRS, MOSTLY SUBANG-RND, LS, MOD SRTD | NO SHOWS |
| 370 | 90 | CLY: A/A | |
| | 10 | SD: OCC YEL BRN, ELSE A/A | |
| 380 | 90 | CLY: A/A | |
| | 10 | SD: A/A | |
| | TR | SHELL FRAGS | |
| 390 | 90 | CLY: A/A | |
| | 10 | SD: A/A | |
| | TR | SHELL FRAGS | |
| 400 | 80 | CLY: A/A | |
| | 20 | SD: A/A | |
| | TR | SHELL FRAGS | |
| 410 | 60 | CLY: A/A | |
| | 40 | SD: MOSTLY MED-V CRS, PARTLY GRDING TO GRAVEL, ELSE A/A | |
| | TR | SHELL FRAGS | |
| 420 | 50 | CLY: A/A | |
| | 50 | SD: A/A | |
| | TR | SHELL FRAGS | |
| 430 | 50 | CLY: A/A | |
| | 50 | SD: A/A | |
| | TR | SHELL FRAGS | |
| 440 | 60 | SD: A/A | |
| | 20 | ROCK FRAGS, QUARTZITE, MICA SCHIST, GRANITE, AMPHIBOLITE | |
| | 20 | CLY: A/A | |
| | TR | SHELL FRAGS | |
| 450 | 60 | SD: A/A | |
| | 20 | ROCK FRAGS | |
| | 20 | CLY: A/A | |
| | TR | SHELL FRAGS | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HELLE/OPSTAD/KLEIVEN DATE: 21.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 460 | 70 | SD: CLR-WH, QTZ, MOSTLY MED-V CRS, MOSTLY SUBANG-SUBRND, LS, MOD SRTD | NO SHOWS |
| | 20 | CLY: LT GRY, SFT, STCKY, SL CALC, PRTLY SLTY, OCC W/ROCK FRAGS | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 470 | 60 | SD: CLR QTZ, OCC WH YEL BRN, CRS-V CRS, OCC FN-MED, GRDNG TO GRANULES, ANG-SUBRND, OCC WELL RND, LS, MOD SRTD | |
| | 20 | ROCK FRAGS: MOSTLY DK MICA SCHISTS, ALSO QTZ, GRANITE AND AMPHIBOLITE | |
| | 20 | CLY: LT GRY, SFT, STKY, NON-SL CALC, PRTLY SLTY AND SNDY | |
| | TR | SHELL FRAGS | |
| 480 | 50 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 20 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 490 | 60 | CLY: A/A | |
| | 15 | SD: A/A | |
| | 15 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 500 | 65 | CLY: A/A | |
| | 20 | ROCK FRAGS | |
| | 15 | SD: A/A | |
| | TR | SHELL FRAGS | |
| 510 | 75 | CLY: A/A | |
| | 15 | ROCK FRAGS | |
| | 10 | SD: A/A | |
| | TR | SHELL FRAGS | |
| 520 | 90 | CLY: A/A | |
| | 5 | SD: A/A | |
| | 5 | ROCK FRAGS: ALSO CHERT, ELSE A/A | |
| | TR | SHELL FRAGS | |
| 530 | 80 | CLY: A/A | |
| | 10 | SD: A/A | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS, PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HELLE/OPSTAD/KLEIVEN DATE: 22.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 540 | 75 | CLY: LT GRY, SFT, STKY, NON-SL CALC, PRTLY SLTY AND SNDY | NO SHOWS |
| | 15 | SD: CLR QTZ, OCC WH AND YEL BRN, CRS-V CRS, OCC FN-MED, GRDNG TO GRANULES, ANG-SUBRND, OCC W RND, LS, MOD SRTD | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS, PYR | |
| 550 | 75 | CLY: A/A | |
| | 15 | SD: A/A | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS, PYR | |
| 560 | 80 | CLY: A/A | |
| | 10 | SD: MED-V CRS, ELSE A/A | |
| | 10 | ROCK FRAGS: GRANULES-CRS, SUBANG-W RND | |
| | TR | SHELL FRAGS | |
| 570 | 90 | CLY: A/A | |
| | 5 | SD: A/A | |
| | 5 | ROCK FRAGS A/A | |
| | TR | SHELL FRAGS, PYR | |
| 580 | 90 | CLY: A/A | |
| | 5 | SD: A/A | |
| | 5 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS, PYR | |
| 590 | 85 | CLY: A/A | |
| | 10 | SD: A/A | |
| | 5 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |
| 600 | 80 | CLY: A/A | |
| | 15 | SD: A/A | |
| | 5 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |
| 610 | 85 | CLY: A/A | |
| | 10 | SD: A/A | |
| | 5 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HELLE/OPSTAD/KLEIVEN DATE: 22.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 620 | 80 | CLY: LT GRY, SFT, STKY, NON-SL CALC, SLTY AND SNDY IN PRTS | NO SHOWS |
| | 15 | SD: QTZ, CLR-WH, YEL BRN, MED-V CRS, PRTLY GRANULES, ANG-SUBRND, LS | |
| | 5 | ROCK FRAGS: GRANULES-CRS, SUBANG-W RND | |
| | TR | SHELL FRAGS | |
| 630 | 60 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 10 | ROCK FRAGS: A/A | |
| 640 | 65 | CLY: A/A | |
| | 25 | SD: A/A | |
| | 10 | ROCK FRAGS: A/A | |
| 650 | 60 | CLY: A/A | |
| | 30 | SD: QTZ, CLR-WH, BRN YEL, OCC PINK YEL, FN-V CRS, GRANULES, ANG-RND, LS, MOD-PR SRTD | |
| | 10 | ROCK FRAGS: CRS-GRANULES, ANG-SUBRND, OCC W RND, QUARTZITE, MICA SCHIST, GRANITE, AMPHIBOLITE OCC CHERT | |
| | TR | SHELL FRAGS | |
| 660 | 60 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 670 | 60 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 10 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAG | |
| 680 | 65 | CLY: A/A | |
| | 25 | SD: A/A | |
| | 10 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |
| 690 | 60 | CLY: LT GRY, SFT, STCKY, SL CALC | |
| | 30 | SD: CLR-YEL QTZ, FN-V CRS, PR SRTD, SUBANG-RND, LS | |
| | 10 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HELLE/OPSTAD/KLEIVEN DATE: 22.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 700 | 60 | CLY: LT GRY, SFT, STCKY, SL CALC | NO SHOWS |
| | 30 | SD: CLR-YEL QTZ, FN-V CRS, PR SRTD, SUBANG-RND, LS | |
| | 10 | ROCK FRAGS: CRS-GRANULES, ANG-SUBRND, OCC W RND, QUARTIZITE, MICA SCHIST, GRANITE, AMPHIBOLITE OCC CHERT | |
| | TR | SHELL FRAGS AND PYRITE | |
| 710 | 60 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 10 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |
| 720 | 60 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 10 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS AND PYRITE | |
| 730 | 60 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 10 | ROCK FRAGS: GRANITE, AMFIBOLITE, GNEISS, MICA SCHIST, SUBANG | |
| | TR | SHELL FRAGS | |
| 740 | 60 | CLY: LT GRY, SFT, STCKY, NON-SL CALC | |
| | 30 | SD: QTZ, CLR-WH, OCC YEL, FN-V CRS, GRNULES, SUBANG-RND, LS, PR SRTD | |
| | 10 | ROCK FRAGS: GRANITE, AMFIBOLITE, GNEIS, MICA SCHIST, QTZ, SUBANG | |
| | TR | SHELL FRAGS | |
| 750 | 60 | CLY: A/A | |
| | 20 | SD: A/A | |
| | 20 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |
| 760 | 60 | CLY: A/A | |
| | 20 | SD: A/A | |
| | 20 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |
| 770 | 60 | CLY: A/A | |
| | 20 | SD: A/A | |
| | 20 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HELLE/OPSTAD DATE: 22.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 780 | 60 | CLY: LT GRY, SFT, STCKY, NON-SL CALC | NO SHOWS |
| | 20 | SD: QTZ, CLR-WH, OCC YEL, FN-V CRS, GRANULES SUBANG-RND, LS, PR SRTD | |
| | 20 | ROCK FRAGS: GRANITE, AMFIBOLITE, GNEIS, MICA SCHIST, QTZ, SUBANG | |
| | TR | SHELL FRAGS | |
| 790 | 60 | CLY: A/A | |
| | 20 | SD: A/A | |
| | 20 | ROCK FRAGS: A/A | |
| | TR | SHELL FRAGS | |
| 800 | 60 | CLY: A/A | |
| | 20 | SD: A/A | |
| | 20 | ROCK FRAGS | 20"CSG AT 801 |
| | TR | SHELL FRAGS | |
| 810 | 70 | CLY: A/A | |
| | 20 | SD: A/A | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 820 | 60 | CLY: A/A | |
| | 30 | SD: A/A | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 830 | 75 | CLY: A/A | |
| | 15 | SD: A/A | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 840 | 85 | CLY: A/A | |
| | 10 | SD: QTZ, CLR-WH, OCC YEL BRN, FN-V CRS, OCC GRANULES, SUBANG-RND, LS, PR-MOD SRTD | |
| | 5 | ROCK FRAGS: CRS-GRANULES, ANG-W RND, AMFIBOLITE, QUARTZITE, MICA SCHIST | |
| | TR | SHELL FRAGS, GLAU | |
| 850 | 75 | CLY: A/A | |
| | 15 | SD: A/A | |
| | 10 | ROCK FRAGS | |
| | TR | SHELL FRAGS, GLAU | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 17½" GEOLOGIST: HELLE/LARSEN DATE: 28.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 860 | 80 | CLY: LT GRY, SFT, STCKY, SL-NON CALC | NO SHOWS |
| | 15 | SD: QTZ, CLR-WH, OCC YEL BRN, FN-V CRS, OCC GRANULES, SUBANG-RND, LS, PR-MOD SRTD | |
| | 5 | ROCK FRAGS | |
| | TR | SHELL FRAGS, GLAU | |
| 870 | 80 | CLY: A/A | |
| | 15 | SD: A/A | |
| | 5 | ROCK FRAGS | |
| | TR | SHELL FRAGS, GLAU | |
| 880 | 90 | CLY: A/A | |
| | 5 | SD: A/A | |
| | 5 | ROCK FRAGS, A/A | |
| | TR | SHELL FRAGS, GLAU | |
| 890 | 90 | CLY: OCC SL FRM, OCC CALC, ELSE A/A | |
| | 5 | SD: A/A | |
| | 5 | ROCK FRAGS | |
| | TR | SHELL FRAGS | |
| 893 | 100 | SD: QTZ, CLR-WH, YEL BRN, FN-CRS, OCC V CRS, SUBANG-RND, LS, MOD SRTD | |
| | TR | CLY: A/A | |
| | TR | ROCK FRAGS, A/A | |
| | TR | GLAU, PYR, SHELL FRAGS | |
| 900 | 100 | SD: A/A | |
| | TR | CLY: A/A | |
| | TR | ROCK FRAGS, A/A | |
| | TR | GLAU, PYR, SHELL FRAGS | |
| 910 | 100 | SD: QTZ, CLR-WH, YEL BRN, OCC ROCK FRAGS, FN-CRS, SUBANG-RND, LS, MOD SRTD | |
| | TR | CLY: LT GRY, OCC LT-MED GRY, SFT, STCKY, NON-SL CALC, OCC SL FRM | |
| | TR | GLAU, PYR, SHELL FRAGS | |
| 920 | 100 | SD: A/A, OCC W RND | |
| | TR | CLY: A/A | |
| | TR | GLAU, PYR | |
| 930 | 90 | SD: A/A | |
| | 10 | CLY: A/A | |
| | TR | GLAU, MICA, SHELL FRAGS | |
| | TR | LST: WH-LT GRY, HD | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 17½" GEOLOGIST: HELLE/LARSEN DATE: 29.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 940 | 100 | SD: QTZ, CLR-WH, YEL BRN, OCC ROCK FRAGS, FN-CRS, SUBANG-RND, LS, MOD SRTD | NO SHOWS |
| | TR | CLY: LT GRY, OCC LT-MED GRY, SFT, STCKY, NON-SL CALC, OCC SL FRM | |
| | TR | GLAU, PYR, SHELL FRAGS | |
| | TR | SST: BRN, FN, SRTD, HD, DOL CMT | |
| 950 | 100 | SD: A/A | |
| | TR | CLY: A/A | |
| | TR | GLAU, PYR | |
| 960 | 90 | CLY: LT-MED GRY, SFT, STCKY, SL-NON CALC | |
| | 10 | SD: A/A | |
| | TR | GLAU, METALBITS, RUBBER, CONTAMINATED BY CMT | |
| 970 | 95 | CLY: MED GRY, SFT, STCKY, SL-NON CALC | |
| | 5 | SD: A/A | |
| | TR | GLAU | |
| 980 | 95 | CLY: A/A | |
| | 5 | SD: A/A | |
| | TR | GLAU, PYR | |
| 990 | 100 | CLY: LT-MED GRY, ELSE A/A | |
| | TR | GLAU, SD | |
| 1000 | 100 | CLY: A/A | |
| | TR | GLAU, MICA, SD | |
| 1010 | 100 | CLY: LT GRN GRY, OCC BRN GRY, SFT, NON-SL CALC | |
| | TR | GLAU, SD | |
| 1020 | 100 | CLY: LT GRN GRY, OCC BRN GRY, SFT-FRM, NON-SL CALC | |
| | TR | GLAU, SD, PYR, MICA | |
| 1030 | 100 | CLY: A/A | |
| | TR | GLAU, SD, MICA | |
| 1040 | 100 | CLY: A/A | |
| | TR | GLAU, MICA | |
| 1050 | 95 | CLY: BRN GRY, OCC LT GRN GRY, SFT-FRM, NON-SL CALC | |
| | 5 | SD: LT BRN-CLR QTZ, V FN-MED, SUBANG-SUBRND | |
| | TR | GLAU, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 17½" GEOLOGIST: HILDE/NETLAND DATE: 29.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1060 | 95 | CLYST: BRN GRY, OCC LT GRN GRY, SFT-FRM, NON SL CALC | NO SHOWS |
| | 5 | SD: LT BRN-CLR QTZ, V FN-MED, SUBANG-SUBRND | |
| | TR | GLAU | |
| 1070 | 100 | CLYST: LT GRY-LT GRN GRY, BRN GRY, SFT-FRM, SL-NON CALC | |
| | TR | GLAU, SD, MICA, PYR | |
| 1080 | 100 | CLYST: LT GRY-LT GRN GRY, OCC BRN GRY | |
| | TR | GLAU, PYR, MICA | |
| 1090 | 70 | CLYST: LT GRY-LT GRN GRY, FRM-SFT, SL-NON CALC | |
| | 30 | CLYST: LT BRN-BRN GRY, ELSE A/A | |
| | TR | GLAU, MICA, PYR | |
| 1100 | 70 | CLYST: A/A | |
| | 30 | CLYST: LT BRN-RED BRN-BRN GRY, ELSE A/A | |
| | TR | GLAU, PYR | |
| 1110 | 70 | CLYST: LT GRY-GRN GRY, A/A | |
| | 30 | CLYST: LT BRN-RED BRN A/A, SL CALC | |
| | TR | GLAU, PYR | |
| 1120 | 50 | CLYST: MED DK GRY-GRY BLK, FRM, NON-CALC | |
| | 30 | CLYST: LT GRY-GRN GRY, A/A | |
| | 20 | CLYST: LT BRN-BRN GRY, A/A | |
| | TR | PYR, SD | |
| 1130 | 50 | CLYST: MED DK GRY-GRY BLK, A/A | |
| | 30 | CLYST: LT GRY-GRN GRY, OCC-LT BL GRY A/A | |
| | 20 | CLYST: LT BRN-BRN GRY, A/A | |
| | TR | MICROMICA, GLAU, PYR | |
| 1140 | 70 | CLYST: MED DK GRY-GRY BLK, FRM, NON CALC | |
| | 15 | CLYST: LT GRY-GRN-GRY, FRM, NON CALC | |
| | 15 | CLYST: LT BRN-BRN GRY, FRM, CALC | |
| | TR | GLAU, MICROMICA | |
| 1150 | 80 | CLYST: MED DK GRY-GRY BLK, A/A | |
| | 10 | CLYST: LT GRY-GRN GRY, A/A | |
| | 10 | CLYST: LT BRN-BRN GRY A/A | |
| | TR | GLAU, MICROMICA, SD | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 17½" GEOLOGIST: HILDE/NETLAND DATE: 30.4.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1160 | 80 | CLYST: MED DK GRY-GRY BLK, FRM, NON CALC | NO SHOWS |
| | 10 | CLYST: LT GRY-GRN GRY, FRM, NON CALC | |
| | 10 | CLYST: LT BRN-BRN GRY, FRM, NON CALC | |
| | TR | GLAU, PYR, SD | |
| 1170 | 80 | CLYST: MED DK GRY-GRYISH BLK A/A | |
| | 10 | CLYST: LT GRY-GRN GRY A/A | |
| | 10 | CLYST: LT BRN-BRNISH GRY, FRM, SL CALC | |
| | TR | PYR, GLAU, SD | |
| 1180 | 85 | CLYST: MED DK GRY-GRYISH BLK A/A | |
| | 5 | TUFF CLYST: BRNISH GRY-GRNISH GRY, SFT, NON CALC, WAXY | |
| | 5 | CLYST: LT BRN-BRNISH GRY A/A | |
| | 5 | CLYST: LT GRY-GRN GRY A/A | |
| | TR | PYR, GLAU, SD | |
| 1190 | 90 | CLYST: MED DK GRY-GRYISH BLK A/A | |
| | 5 | CLYST: LT BRN-BRNISH GRY A/A | |
| | 5 | CLYST: LT GRY, GRN GRY A/A | |
| | TR | TUFF CLYST: A/A | |
| | TR | PYR, GLAU, SD | |
| 1200 | 95 | CLYST: MED DK GRY-GRYISH BLK A/A | |
| | 5 | CLYST: LT GRY-GRN GRY A/A | |
| | TR | CLYST: LT BRN-BRNISH GRY | |
| | TR | TUFF CLYST: A/A, PYR, GLAU, SD | |
| 1210 | 65 | CLYST: MED DK GRY A/A | |
| | 30 | SD: CLR LT BRN QTZ, FN-CRS, SUBRND-SUBANG | |
| | 5 | CLYST: LT GRY-GRN GRY A/A | |
| | TR | CLYST: LT BRN-BRNISH GRY | |
| | TR | TUFFAVEOUS CLYST: A/A, PYR, GLAU | |
| 1220 | 80 | CLYST: MED DK GRY-BRNISH GRY, FRM, NON CALC | |
| | 20 | CLYST: LT GRY-GRN GRY, A/A | |
| | TR | TUFFACEOUS CLYST: LT GRY-BRNISH GRY, FRM, SL CALC, WAXY | |
| | TR | GLAU, PYR | |
| | TR | SD: CLR-LT BRN QTZ, FN-CRS, SUBANG-SUBRND | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 17½" GEOLOGIST: HILDE/NETLAND DATE: 1.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMAR |
|---|---|---|---|
| 1230 | 60 | CLYST: MED DK GRY-BRNISH GRY, FRM OCC SFT, MICROMICA | NO SHOWS |
| | 35 | CLYST: LT GRY-GRN GRY, SFT-FRM, SL CALC | |
| | 5 | SD: CLR QTZ, MED-FN, SUBANG-ANG | |
| | TR | CLYST: TUFF, LT GRY BRN, FRM | |
| | TR | PYR, LST | |
| 1240 | 60 | CLYST: LT GRY-GRN GRY, FRM-SFT, NON-CALC | |
| | 35 | CLYST: GRYISH BRN, FRM | |
| | 5 | SD: A/A | |
| | TR | PYR, LST | |
| 1250 | 60 | CLYST: LT GRY-GRN GRY, A/A | |
| | 35 | CLYST: BRNISH GRY, A/A | |
| | 5 | SD: CLR QTZ, MED-FN, OCC SLT, SUBANG | |
| | TR | LST | |
| 1260 | 50 | CLYST: LT GRY-GRN GRY A/A | |
| | 45 | CLYST: BRNISH GRY, A/A | |
| | 5 | SD: A/A | |
| | TR | LST | |
| 1262 | 50 | CLYST: LT GRY-GRN GRY A/A | |
| | 50 | CLYST: BRNISH GRY, A/A | |
| | TR | SD: A/A | |
| | TR | LST, PYR, MICA | |
| 1265 | | A/A | |
| 1267 | 100 | CLYST: MED DK GRY-DK GRY, OCC LT GRN GRY, FRM, NON CALC | |
| | TR | SD: CLR QTZ, MED-FN, OCC SLT | |
| | TR | LST, MICA | |
| 1270 | 85 | CLYST: SLTY, ELSE A/A | |
| | 15 | SLTST: LT BRN, FRM-HD | |
| | TR | SD, LST, MICA | |
| 1280 | 85 | CLYST: A/A | |
| | 10 | SD: CLR QTZ, FN-MED, SUBANG-ANG | |
| | 5 | SLTST: A/A | |
| | TR | MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HILDE/NETLAND DATE: 4.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1290 | 75 | CLYST: MED DK GRY-DK GRY, OCC LT GRN GRY, FRM, NON CALC | NO SHOWS |
| | 20 | SD: CLR QTZ, CRS-MED, OCC FN, SUBANG | |
| | 5 | SLTST: LT BRN-LT GRY, FRM | |
| | TR | LST, MICA | |
| 1298 | 85 | SD: CLR QTZ, OCC WH, CRS-MED, OCC V CRS, SUBANG-SUBRND | |
| | 10 | SLTST: LT GRY, FRI, CALC | |
| | 5 | CLYST: MED DK GRY-DK GRY | |
| | TR | LST | |
| 1300 | 90 | SD: CLR QTZ, OCC WH, YEL AND GN, FN-CRS, OCC V CRS, MOD-PR SRTD, OCC ROCK FRAG, DK GRN-DK GRY, V FN-FN, SUBRND-RND | |
| | 5 | CLYST: A/A | |
| | 5 | SLTST: LT GRY, FRM, CALC | |
| | TR | MICA | |
| 1310 | 95 | SD: CLR-WH QTZ, OCC YEL AND GRN, V FN-CRS, OCC V CRS, OCC ROCK FRAG A/A, PRLY SRTD, ANG-SUBANG, OCC W RND | |
| | 5 | SLTST: A/A | |
| | TR | CLYST: A/A | |
| | TR | FOSSIL FRG, WH, CALC | |
| | TR | MICA FRAG | |
| | TR | LST | |
| 1320 | 95 | SD: A/A | |
| | 5 | SLTST: A/A | |
| | TR | CLYST: A/A, MICA | |
| | TR | CLYST: RD BRN, SFT, NON CALC | |
| | TR | FOSSIL FRAG, A/A | |
| | TR | MICA, LST | |
| 1330 | 50 | CLYST: DK GRY, SFT-FRM | |
| | 25 | SLTST | |
| | 20 | SD | |
| | 5 | LST | |
| 1335 | 95 | SLTST/CLYST: LT GRY-MED DK GRY, SFT OCC FRM, CALC | |
| | 5 | SD: CLR QTZ, CRS-FN, PR SRTD, SUBANG, OCC RND | |
| | TR | LST: WH, FRM | |
| | TR | MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HILDE/NETLAND DATE: 4.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1340 | 90 | SLTST/CLYST: LT GRY-MED DK GRY, SFT OCC FRM, CALC | NO SHOWS |
| | 10 | SD: CLR QTZ, CRS-FN, OCC V CRS, OCC ROCK FRAG, DK GRY-DK GRN | |
| | TR | FOSSIL FRAG, WH, CALC | |
| 1350 | 85 | CLYST: LT GRY-MED DK GRY, OCC BRN-GRY, SFT OCC FRM V CALC, V SILTY | |
| | 15 | SD: CLR QTZ, OCC WH, FN-V CRS, PR SRTD, SUBANG, OCC RND, LS | |
| | TR | LST: WH, LS | |
| | TR | FOSSIL FRAGS. GLAU, MICA | |
| 1360 | 95 | CLYST: LT GRY-MED DK GRY, OCC BRN GRY AND GRN GRY, A/A | |
| | 5 | SD: A/A | |
| | TR | LST: A/A | |
| | TR | FOSSIL FRAGS, GLAU, MICA | |
| 1370 | 95 | CLYST: A/A | |
| | 5 | SD: A/A | |
| | TR | LST: A/A | |
| | TR | FOSSIL FRAGS, GLAU, MICA, PYR | |
| 1380 | 100 | CLYST: V SLTY, A/A | |
| | TR | SD: A/A | |
| | TR | LST: A/A | |
| | TR | FOSS FRAGS, GLAU, MICA, PYR | |
| 1390 | 100 | CLYST: A/A | |
| | TR | SD: CLR QTZ, FN-CRS, PR SRTD, SUBANG, OCC RND | |
| | TR | LST: A/A | |
| | TR | FOSS FRAGS, GLAU, MICA | |
| 1400 | 100 | CLYST: A/A | |
| | TR | SD: A/A | |
| | TR | FOSS FRAGS, GLAU, PYR, MICA | |
| 1410 | 100 | CLYST: A/A | |
| | TR | SD: A/A | |
| | TR | LST | |
| | TR | FOSS FRAGS, GLAU, PYR, MICA | |
| 1420 | 100 | CLYST: A/A | |
| | TR | SD: A/A | |
| | TR | FOSS FRAGS, GLAU, PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HILDE/NETLAND DATE: 5.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1430 | 95 | CLYST: LT GRY-MED DK GRY, SFT, OCC FRM, SL CALC, V SLTY | NO SHOWS |
| | 5 | CLYST: BRNISH RD, SFT, NON CALC, SLTY | |
| | TR | SD: CLR QTZ, FN-MED, PR SRTD, SUBANG, LS | |
| | TR | GLAU, PYR, FOSS FRAG | |
| 1440 | 95 | CLYST: LT GRY-MED DK GRY ELSE A/A | |
| | 5 | CLYST: BRNISH RD, A/A | |
| | TR | SD: FN-CRS, ELSE A/A | |
| | TR | LST: WH, FRM | |
| 1450 | 50 | SD: V FN-FN-SLT, OCC V CRS, CLR QTZ, OCC ROCK FRG, DK GRN-BLK, V CALC | |
| | 45 | CLYST: LT GRY-MED DK GRY, ELSE A/A | |
| | 5 | CLYST: BRNISH RD, A/A | |
| | TR | GLAU, FOSS FRGS, MICA | |
| 1460 | 90 | CLYST: LT GRY-MED DK GRY A/A | |
| | 10 | SLTST: CLR-WH, MOD-HD | |
| | TR | CLYST: BRNISH RD, A/A | |
| | TR | GLAU, MICA | |
| | TR | SD: A/A | |
| 1470 | 80 | CLYST: LT GRY-MED DK GRY, A/A | |
| | 20 | SLTST: A/A | |
| | TR | SD: A/A | |
| | TR | GLAU, PYR, MICA | |
| | TR | CLYST: BRNISH RD A/A | |
| | TR | LST: WH-BUFF, FRM | |
| 1480 | 90 | CLYST: LT GRY-MED DK GRY, V SLTY, SFT-FRM, NON CALC | |
| | 10 | SLTST: LT BRN, FRI-HD | |
| | TR | SD: A/A | |
| | TR | MICA | |
| | TR | LST: A/A | |
| 1490 | 90 | CLYST: A/A | |
| | TR | CLYST: RD BRN, SFT | |
| | 10 | SLTST: LT GRY BRN, FRI | |
| | TR | SD: A/A | |
| | TR | LST, MICA, PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HILDE/NETLAND DATE: 5.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1500 | 95 | CLYST: MED DK GRY-OCC LT GRY, FRM, NON CALC | NO SHOWS |
| | 5 | SLTST: LT BRN GRY, FRI-HD | |
| | TR | SD: CLR QTZ, MED-CRS, SUBANG, LS | |
| | TR | DOL: DK BRN, HD | |
| | TR | LST | |
| 1510 | 95 | CLYST: V SLTY, LT GRY-MED DK GRY, NON CALC FRM-SFT | |
| | 5 | SLTST: A/A | |
| | TR | SD: CLR QTZ-GRN QTZ, MED-CRS, LS, SUBANG | |
| | TR | DOL: A/A | |
| | TR | PYR | |
| 1513 | 50 | CLYST: A/A | |
| | 35 | SLTST: LT GRY-LT BRN, A/A | |
| | 10 | SD: CLR QTZ, V FN-VN, OCC MED-CRS, LS, SUBANG | |
| | 5 | DOL: WH, SFT | |
| | TR | LST | |
| | TR | CLYST: RDSH BRN, SFT | |
| | TR | PYR | |
| 1520 | 85 | CLYST: A/A | |
| | 10 | SLTST: A/A | |
| | 5 | SD: A/A | |
| | TR | LST: DOL | |
| | TR | MICA | |
| 1530 | 85 | CLYST: A/ | |
| | 10 | SLTST: A/A | |
| | 5 | SD: A/A | |
| | | LST, DOL, PYR, MICA | |
| 1540 | 85 | CLYST: A/A | |
| | 10 | SLTST: A/A | |
| | 5 | SD: A/A | |
| | TR | LST: DOL | |
| | TR | PYR, MICA | |
| 1550 | 80 | CLYST: A/A | |
| | 10 | SLTST: A/A | |
| | 5 | SD: CLR-GRN QTZ, MED-V FN, OCC CRS, OCC ROCK FRG, GRN, SUBRND-RND | |
| | 5 | DOL: LT-DK BRN, CALC IN PTS | |
| | TR | PYR | |
| | TR | MICA, FOSS FRG | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HILDE/NETLAND DATE: 5.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1560 | 80 | CLYST: LT GRY-MED DK GRY, SFT-FRM, NON-SL CALC | NO SHOWS |
| | 15 | SLTST: LT GRY, OCC LT BRN GRY, FRI, HD | |
| | 5 | SD: CLR QTZ, MED-CRS, SUBANG, LS, HD | |
| | TR | MICA | |
| | TR | FOSS FRGS, PYR | |
| | TR | DOL: LT-DK BRN, MOD HD | |
| | TR | CLYST: BRNISH RD, SFT-FRM, NON CALC | |
| 1570 | 90 | CLYST: LT GRY-MED DK GRY, A/A | |
| | 5 | SLTST: A/A | |
| | 5 | SD: A/A | |
| | TR | CLYST: BRNISH RD A/A | |
| | TR | MICA, FOSS FRAGS, PYR | |
| | TR | DOL: A/A | |
| 1580 | 90 | CLYST: LT GRY-MED DK GRY, A/A | |
| | 5 | SD: A/A | |
| | 5 | SLTST: A/A | |
| | TR | DOL: A/A | |
| | TR | PYR, MICA, FOSS FRGS, GLAU | |
| 1590 | 85 | CLYST: LT GRY-MED DK GRY A/A | |
| | 10 | SD: FN-CRS, OCC V CRS A/A | |
| | 5 | SLTST: A/A | |
| | TR | DOL: A/A | |
| | TR | PYR, GLAU, MICA, FOSS FRGS | |
| 1600 | 90 | CLYST: LT GRY-MED DK GRY, OCC LT GRN GRY, ELSE A/A | |
| | 5 | SD: A/A | |
| | 5 | SLTST: A/A | |
| | TR | DOL: A/A | |
| | TR | PYR, GLAU, FOSS FRGS | |
| | TR | LST: WH, FRM | |
| 1610 | 95 | CLYST: A/A | |
| | 5 | SD: A/A | |
| | TR | DOL: A/A | |
| | TR | SLTST: A/A | |
| | TR | PYR, GLAU, FOSS FRGS | |
| | TR | MICA | |
| 1620 | 95 | CLYST: LT BRN GRY-MED DK GRY, OCC LT GRN GRY, ELSE A/A | |
| | 5 | SLTST: A/A | |
| | TR | SD: A/A | |
| | TR | DOL: A/A, GLAU, FOSS FRAGS, PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: HILDE/NETLAND DATE: 6.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1630 | 85 | CLYST: LT GRY-MED DK GRY, OCC LT GRN GRY, SFT-FRM, CALC | NO SHOWS |
| | 5 | CLYST: BRNISH RD, SFT, CALC | |
| | 5 | SD: CLR QTZ, FN-CRS, OCC V CRS, SUBAND, LS, HD | |
| | 5 | SLTST: LT GRY, OCC LT BRN GRY, FRI, HD | |
| | TR | DOL: LT-DK BRN, MOD HD | |
| | TR | PYR, FOSS FRGS, MICA, GLAU | |
| | TR | LST: WH, FRM | |
| 1640 | 60 | CLYST: LT GRY-MED DK GRY, OCC LT GRN GRY, ELSE A/A | |
| | 30 | SLTST: A/A | |
| | 5 | SD: A/A | |
| | 5 | CLYST: BRNISH RD, A/A | |
| | TR | DOL: A/A | |
| | TR | PYR, GLAU, MICA | |
| | TR | LST: A/A | |
| 1649 | 70 | CLYST: LT GRY-MED DK GRY, OCC LT GRN GRY AND PA RD GRY, ELSE A/A | |
| | 20 | SLTST: A/A | |
| | 5 | SD: A/A | |
| | 5 | CLYST: BRNISH RD, A/A | |
| | TR | PYR, GLAU, MICA, FOSS FRGS | |
| | TR | LST, A/A | |
| 1650 | 80 | CLYST: A/A | |
| | 20 | SLTST: A/A | |
| | TR | SD: A/A | |
| | TR | CLYST: BRNISH RD A/A | |
| | TR | LST: A/A | |
| | TR | MICA | |
| 1660 | 90 | CLYST: A/A | |
| | 10 | SLTST: A/A | |
| | TR | A/A | |
| 1670 | | A/A | |
| 1680 | 90 | CLYST: A/A | |
| | 10 | SLTST: A/A | |
| | TR | SD: MED-V CRS, ELSE A/A | |
| | TR | PYR, MICA | |
| | TR | CLYST: BRNISH RD, A/A | |
| | TR | LST: A/A | |
| | TR | DOL: HD, ELSE A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: KRISTENSEN DATE: 6.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1690 | 95 | CLYST: LT-MED DK GRY, OCC LT GRN GRY, SFT-FRM OCC FISS, V CALC | NO SHOWS |
| | 5 | SLTST: LT GRY, OCC RD BRN, SFT, CALC | |
| | TR | PYR | |
| | TR | SD: CLR QTZ, MED-V CRS, SUBANG-RND | |
| | TR | DOL: LT BRN-DK BRN, HD, MICROXLN | |
| | TR | CALCITE: CLR-WH, XLN | |
| | TR | MICA, FOSS FRGS | |
| 1700 | | A/A | |
| 1710 | 100 | CLYST: A/A, OCC SL SLTY, SL-V CALC | |
| | TR | A/A | |
| 1715 | 95 | CLYST: A/A | |
| | 5 | SLTST: A/A | |
| | TR | A/A | |
| 1720 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1725 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1730 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1735 | 100 | CLYST: A/A, MORE MICACEOUS THAN ABOVE | INCREASE IN BOTH PYR AND LST/DOL |
| | TR | LST/DOL: SL INCREASE IN AMOUNT | |
| | TR | PYR | |
| | TR | MICA, SD | |
| | TR | SLTST: A/A | NO SHOWS |
| | TR | SHELL FRGS | |
| 1740 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1745 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1750 | | A/A | |
| 1760 | | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: KRISTENSEN DATE: 7.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1770 | 100 | CLYST: LT-MED DK GRY, OCC LT GRN GRY, SFT-FRM OCC FISS, V CALC, SL MICA | NO SHOWS |
| | TR | CLYST: BRICK RD, SFT, SLTY | |
| | TR | PYR | |
| | TR | LST/DOL: A/A | |
| | TR | MICA, SD | |
| | TR | SLTST: LT GRY, OCC RD BRN, SFT, CALC | |
| | TR | SHELL FRAGS | |
| 1780 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1790 | 100 | CLYST: LT-MED DK GRY, OCC GRN GRY, OCC GRN, SFT-FRM, OCC FISS, MICRO-MICA, OCC CALC, STCKY | |
| | TR | CLYST: BRICK RD, SFT, MICROMICA | |
| | TR | LST/CALC: XLN | |
| | TR | DOL: LT-DK BRN, FRM-HD, OCC HD MICROXLN | |
| | TR | MICA, PYR, FOSS FRAGS | |
| | TR | SLTST: LT GRY, SFT, OCC CALC | |
| 1800 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1810 | | A/A | SLIGHT INCREA IN PYR |
| 1820 | 90 | CLYST: A/A, SL CALC, SL SLTY | |
| | 10 | CLYST: BRICK RD, SFT, SL SLTY, MICROMICA, OCC CALC | |
| | TR | A/A | |
| 1830 | 85 | CLYST: A/A, FRM | |
| | 15 | CLYST: BRICK RD, A/A | |
| | TR | SLTST: A/A | |
| | TR | A/A | |
| 1840 | 100 | CLYST: A/A, MNLY FRM | |
| | TR | CLYST: BRICK RD, A/A | |
| | TR | A/A | |
| 1850 | | A/A | |
| 1860 | | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: KRISTENSEN DATE: 9.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1870 | 95 | CLYST: LT-MED DK GRY, OCC GRN GRY, OCC GRN, SFT-FRM, OCC FISS, SL SLTY, V CALC | NO SHOWS |
| | 5 | SLTST: LT GRY, SFT, OCC CALC | |
| | TR | CLYST: BRICK RD, SFT, MICROMICA | |
| | TR | LST/CALC: XLN | |
| | TR | DOL: LT-DK BRN, FRM-HD | |
| | TR | MICA, PYR, FOSS FRAGS | |
| | TR | SLTST: LT GRY, SFT, OCC CALC | |
| | TR | GLAU, CHL | 1875 UP TO 5% PYR |
| 1880 | 100 | CLYST: WH LT GRY, V CALC, ELSE A/A | |
| | TR | A/A | |
| 1890 | 95 | CLYST: A/A | |
| | 5 | PYR, MICROXLN | |
| | TR | A/A | |
| 1900 | 100 | CLYST: LT-MED DK GRY, OCC LT GRN GRY, FRM, OCC FISS, MICROMIC, SLTY IN PARTS, CALC-V CALC | NO SHOWS |
| | TR | SLTST: LT GRY, OCC RD BRN, SFT-FRI, CALC | |
| | TR | DOL: LT-DK BRN, HD, MICROXLN | |
| | TR | LST: WH-GRY, OCC LT-DK BRN, MICROXLN-CRYSTALINE | SLIGHT DECREA IN PYRITE, BU INCREASE IN SAND CONTENT |
| | TR | PYR, SD, GLAU/CHL, FOSS FRGS | |
| 1910 | 100 | CLYST: SL CALC, ELSE A/A | |
| | TR | A/A | |
| 1920 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 1930 | 100 | CLYST: CALC, ELSE A/A | |
| | TR | A/A | |
| 1940 | 95 | CLYST: A/A | |
| | 5 | SLTST: OCC V CALC, ELSE A/A, W/DOL CMTD LT BRN | |
| | TR | A/A | |
| 1950 | 95 | CLYST: A/A | |
| | 5 | SLTST: A/A | |
| | TR | A/A | |
| 1960 | 100 | CLYST: A/A | DECREASE IN PYRITE |
| | TR | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: KRISTENSEN DATE: 9.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 1970 | 100 | CLYST: LT-MED DK GRY, OCC LT GRN GRY, FRM, OCC FISS, MICROMIC, SLTY IN PARTS, CALC | NO SHOWS |
| | TR | SLTST: LT GRY, OCC RD BRN, SFT-FRI, CALC | |
| | TR | DOL: LT-DK BRN, HD, MICROXLN | |
| | TR | LST: WH-GRY, OCC LT-DK BRN, MICROXLN-CRYSTALINE | |
| | TR | PYR, SD, GLAU/CHL, FOSS FRGS | |
| 1980 | 100 | CLYST: V CALC ELSE A/A | SLIGHT INCREA IN LST, DECREASE IN PYRITE ALSO SL INCREASE IN SLTST |
| | TR | A/A | |
| 1990 | 100 | CLYST: A/A OCC DK GRY, SL CALC | |
| 2000 | 90 | CLYST: V CALC, ELSE A/A | |
| | 5 | SLTST: DOL CMTD, ELSE A/A | |
| | 5 | LST/DOL: A/A | |
| | TR | A/A | INCREASE IN PYR |
| 2003 | 90 | CLYST: V CALC, ELSE A/A | |
| | 5 | SLTST: DOL CMTD, ELSE A/A | |
| | 5 | LST/DOL: A/A | |
| | TR | A/A | |
| 2006 | 90 | CLYST: V CALC, ELSE A/A | |
| | 5 | SLTST: DOL CMTD, ELSE A/A | |
| | 5 | LST/DOL: A/A | |
| | TR | A/A | |
| 2009 | 100 | CLYST: A/A, NON CALC, OCC DK GRY | |
| | TR | A/A | |
| 2012 | 100 | CLYST: A/A, NON CALC, OCC DK GRY | |
| | TR | A/A | |
| 2015 | 100 | CLYST: LT-MED DK GRY, OCC DK, FRM, OCC SFT, OCC FISS, MICROMIC, NON-SL CALC, OCC STCKY, V CALC, OCC SLTY | NO SHOWS |
| | TR | SLTST: LT GRY-DK BRN, FRM, OCC HD, OCC HD DOL CMTD | |
| | TR | DOL: LT-DK BRN, HD-V HD, MICROXLN | |
| | TR | LST: WH-GRY, SFT-HD, OCC LT BRN | |
| | TR | PYR, SD, FOSS FRGA, GLAU/CHL | |
| 2018 | 95 | CLYST: A/A | |
| | 5 | LST/DOL: A/A | |
| | TR | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: KRISTENSEN DATE: 10.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2021 | 100 | CLYST: LT-MED DK GRY, OCC RDISH BRN, FRM, OCC SFT,OCC FISS, MICROMIC, NON-SL CALC, OCC STCKY, V CALC, OCC SLTY | NO SHOWS |
| | TR | SLTST: LT GRY-DK BRN, FRM, OCC HD DOL CMTD | |
| | TR | DOL: LT-DK BRN, HD-V HD, MICROXLN | |
| | TR | LST: WH-GRY, OCC LT BRN, SFT-HD | |
| | TR | PYR, SD, FOSS FRAG, GLAU/CHL | |
| 2024 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2027 | 100 | CLYST: A/A | SL INCREASE IN LST/DOL. |
| | TR | A/A | |
| 2030 | 100 | CLYST: A/A | SL INCREASE IN SLTST |
| | TR | A/A | |
| 2033 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2036 | 100 | CLYST: OCC GRY GRN, ELSE A/A | |
| | TR | A/A | |
| 2039 | 100 | CLYST: OCC GRY GRN, ELSE A/A | |
| | TR | A/A | |
| 2042 | 100 | CLYST: A/A | SL INCREASE IN LST/DOL |
| | TR | A/A | |
| 2045 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2048 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2051 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2054 | 100 | CLYST: A/A, SL INCREASE IN SLT AND RD BRN CLYST | |
| | TR | A/A | |
| 2057 | 100 | CLYST: A/A | |
| | TR | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: KRISTENSEN DATE: 10.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2060 | 100 | CLYST: LT-MED DK GRY, OCC GRY GRN, OCC RDISH BRN, FRM, OCC SFT,OCC FISS, MICROMIC, NON-SL CALC, OCC STCKY, V CALC, OCC SLTY, OCC RDISH BRN | NO SHOWS |
| | TR | SLTST: LT GRY-LT DK BRN, FRM, OCC HD DOL CMTD | |
| | TR | DOL: LT-DK BRN, HD-V HD, MICROXLN | |
| | TR | LST: WH-GRY, OCC LT BRN SFT-HD | |
| | TR | PYR, SD, FOSS FRAG, GLAU/CHL | |
| 2063 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2066 | 100 | CLYST: DECREASE IN CALC, ELSE A/A | |
| | TR | A/A | |
| 2069 | 100 | CLYST: LT-MED DK GRY, OCC GRN GRY, OCC BRICK-BRNISH RD, OCC DK, FRM OCC SFT AND STCKY, OCC FISS, MICROMIC, NON-SL CALC, OCC SLTY | NO SHOWS |
| | TR | SLTST: LT GRY, OCC RD BRN, SFT-FRIABLE, OCC HD DOL CMTD | |
| | TR | DOL: LT-DK BRN, HD-V HD, MICROXLN | |
| | TR | LST, PYR, SND, FOSS FRAGS, GLAU/CHLORITE | |
| 2072 | 100 | CLYST: MNLY DK, ELSE A/A | INCREASE IN SLT CONTENT |
| | TR | MICA, ELSE A/A | |
| 2075 | 85 | CLYST: A/A | |
| | 10 | DOL: A/A | |
| | 5 | DOL: WH-LT GRY, SFT-FRM | |
| | TR | A/A | |
| 2078 | 90 | CLYST: A/A | |
| | 5 | LST: A/A | |
| | 5 | DOL: A/A | |
| | TR | A/A | |
| 2081 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2084 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2087 | 100 | CLYST | |
| | TR | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 12 1/4" GEOLOGIST: KRISTENSEN DATE: 10.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2090 | 100 | CLYST: LT-MED DK GRY, OCC GRN GRY, OCC BRICK-BRNISH RD, OCC DK, FRM, OCC SFT AND STCKY, OCC SLTY | NO SHOWS |
| | TR | SLTST: LT GRY, OCC RD BRN, SFT-FRIABLE, OCC HD DOL CMTD | |
| | TR | DOL: LT-DK BRN, HD-V HD, MICROXLN | |
| | TR | LST, PYR, SND, FOSS FRAGS, GLAU/CLORITE | |
| 2093 | 95 | CLYST: A/A | |
| | 5 | DOL | |
| | TR | A/A | |
| 2096 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2099 | 95 | CLYST: A/A | |
| | 5 | LST/DOL: A/A | |
| 2102 | 90 | CLYST: A/A | |
| | 5 | DOL: A/A | |
| | 5 | LST: A/A | |
| | TR | A/A | |
| 2105 | 100 | CLYST: A/A | |
| | TR | A/A | |
| 2108 | 90 | CLYST: A/A | |
| | 5 | DOL: A/A | |
| | 5 | LST: A/A | |
| | TR | A/A | |
| 2111 | 95 | CLYST: LT-MED DK GRY, OCC V DK, OCC GRN GRY, OCC RDISH BRN, FRM, OCC SFT AND STCKY, OCC FISS, MICROMIC, OCC SLTY, NON-SL CALC | NO SHOWS |
| | 5 | LST: LT GRY, SFT, OCC ARG | |
| | TR | DOL: LT-DK BRN, HD-V HD, MICROXLN | |
| | TR | PYR, SD, FOSS FRAGS, GLAU/CHLORITE | |
| | TR | SLTST: LT GRY, FRIABLE, OCC HD DOL CMTD | |
| 2114 | 90 | CLYST: A/A | 9 5/8" CSG SET AT 2097 M |
| | 5 | DOL: A/A | |
| | 5 | LST: A/A | |
| | TR | A/A | |
| 2115 | | A/A BOTTOM UP | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO:. 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIKSTAD DATE: 13.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2117 | 100 | CLYST: MED-DK GRY, V OCC GRN-GRN GRY, SFT-FRM, NON-SL CALC, MIC-MICROMIC, OCC BRN-RD BRN CLYST, SFT, SL CALC | ABUND, SHOE CONTAMINATION + CMT |
| | TR | PYR NOD | NO SHOWS |
| | TR | DOL: MED-DK BRN, OCC GRY, HD, ANG | |
| | TR | QTZ: LSE GRNS, FN-MED, RND, CLR-CLDY WH | |
| 2120 | 100 | CLYST: MED GRY-DK GRY, OCC GRN, V OCC BLK GRY, NON-SL CALC, FRM, OCC SLTY | LOT OF MUD CO BENTONITE OR |
| | TR | DOL: BRN, HD, ANG, MICROXLN | V. PA BRN, WH |
| | TR | PYR: NODULES | GRY-SFT STCKY |
| | TR | LS QTZ | OCC SLTY TEXT + CMT CONTAM |
| 2123 | 100 | CLYST: MED GRY, OCC BLISH GRY, GRN-GRN, GRY-DK GRY, FRM, BLKY, OCC SUBFISS, MICROMIC, NON-SL CALC | CMT CONTAM + MUD CONTAM |
| | TR | PYR NOD, GLAU | |
| | TR | LS QTZ: V FN, CLR, SUBRND-RND | |
| | TR | DOL: A/A | |
| 2126 | A/A | | |
| 2129 | 100 | CLYST: MED GRY, OCC DK GRY, BLUISH GRY, GRN, SFT-FRM, SLTY IN PRT, NON-SL CALC, PYR, OCC GRDNG TO FN SST | |
| | TR | DOL: BUFF, FRM-HD, ANG, MICROXLN, OFTEN SNDY | |
| | TR | CLYST: PA BRN GRY-MED GRY OCC BL GRY, DK GRY, GRN, SLTY TO SNDY IN PART | |
| | TR | A/A | |
| 2135 | 90 | CLYST: V PA BRN GRY-LT GRY, SFT OCC BL GRY GRN, DK GRY, SFT-FRM MICROMIC GLAU IN PART NON-SL CALC | LIGNITE CONTAM |
| | 10 | SLTST: PA GRY, BLKY, FRM, NON CALC GRDNG TO V FN SST, WH GRY, FRM, V FN-FN, SUBANG, WELL SRTD, CALC | |
| | TR | DOL/LST: PA BRN, OCC BUFF, HD, ANG, MICROXLN | |
| | TR | PYR: NOD | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 14.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2138 | 90 | CLYST: PA GRY-PA BRN GRY-MED GRY, SFT-FRM, SLTY, BLK SPKS, BLKY | |
| | 10 | SLTST: PA BRN GRY, MOD FRM, MICROMIC, BLKY, BLK INCL | DULL YEL MIN FLUOR ONLY |
| | TR | SST: PA GRY, V FN-FN, BLKY, MOD HD, SUBANG, MOD WELL SRTD, SL GLAU, BLK INCL ALSO CRM INCL, CALC | NO CUT OR CRUSH CUT |
| | TR | DOL/LST: PA BRN-MED BRN, HD, ANG A/A OCC WH GRY, FRM, ARG | |
| 2141 | 75 | CLYST: PA GRY, BLISH GRY, PA BRN GRY, FRM-MOD HD, BLK SPKS, SLTY, BLKY, SL TR RD BRN | |
| | 15 | SLTST/SST: PA BRN GRY, MOD FRM, BLKY, ANG, CALC CMT, V FN-FN | |
| | 10 | DOL/LST: BRN-PA BRN AND CRM, HD, SNDY, ANG, MICROXLN, OCC SFT, EARTHY | |
| | TR | PYR: NOD, FIBROUS CALC | |
| 2144 | 85 | CLYST: PA GRY, PA BRN GRY, DK GRY, SFT-FRM OCC PLASTIC, BLKY, MICROMIC, NON-SL CALC, SLTY IN PRT | |
| | 10 | SLTST: BRN-BRN GRY, BLKY, MOD CALC | |
| | 5 | DOL/LST: BUFF-CRM, HD-SFT, ANG TO BLKY | |
| | TR | CALC: WH FIBROUS | |
| 2147 | 95 | CLYST: WH GRY-PA GRY AND GRN GRY, SFT-FRM, SLTY, V MICROMIC, MOD CALC | LIGNITE CONTAM. CALC |
| | 5 | DOL:LST: BRN-BUFF, FRM-HD, ANG, MICROXLN | MIN FL ONLY |
| | TR | SLTST: A/A | NO CUT OR |
| | TR | PYR, CALC | CRUSH |
| 2150 | 95 | CLYST: PA GRY-PA BRN GRY, SFT-FRM, NON-MOD CALC, BLKY, SPKD BLK, OCC GRN, SL GLAU | |
| | 5 | DOL/DOL CLYST: WH GRY, SFT-HD, CLAYEY, HD, ANG | |
| 2153 | 100 | CLYST: DK GRY-BLK GRY, SFT, STCKY, OCC FRM, MOD CALC, OCC GN, OCC PA GRY-GRY BRN, SLTY | |
| | TR | DOL/LST: A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 14.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2156 | 100 | CLYST: MED GRY-DK GRY, SFT, STCKY, MOD CALC, SLTY, OCC GN GRY AND PA GRY, MICROMIC-MIC | LIGNITE CONTAI |
| | TR | SST: CLR-PA GRY, V FN, FRI-MOD HD, SUBANG, WELL SRTD, CALC CMTD OCC V MIC | DULL YEL MIN FLUOR |
| | TR | CLYST: CLR BRN-BRN GRY, FRM, V MICA | |
| | TR | DOL/LST: A/A, PYR | |
| 2159 | 100 | CLYST: MED GRY-MED GRY BRN, SFT-FRM, BLKY, OCC GN, OCC DK GRY-BLK, OCC LAM, WH, SFT, V CALC, MARLY, OCC DK BRN, FRM | NO SHOWS |
| | TR | SST: A/A, DOL/LST: A/A | |
| 2160 | 100 | CLYST: A/A, OCC GRDNG TO SLTST | |
| | TR | SST: A/A | |
| 2162 | 100 | CLYST: A/A V OFTEN GRDNG TO SLTST | NO SHOWS, MIN FLUOR ONLY |
| | TR | SD/SST: A/A V OCC CRS, LS QTZ, SUBRND | |
| | TR | PYR, LST, WH, SFT AND DOL BRN, HD | |
| 2165 | 100 | CLYST: A/A GRDNG TO SLTST | |
| | TR | SD/SST: A/A | |
| | TR | PYR, LST AND DOL | |
| 2168 | 95 | CLYST: A/A OCC PA GRY, WH GRY, SFT AND RD BRN, SFT, CALC-V CALC | |
| | 5 | SD: CLR QTZ, OCC CLDY, V FN-FN, SUBRND, CRS, ANG-SUBANG, PR SRTD | |
| | TR | DOL/LST: A/A, PYR | |
| 2171 | 95 | CLYST: PA GRY-MED GRY, RD BRN, SFT, V CALC, MARLY | NO SHOWS |
| | 5 | SD: PREDOM LS QTZ, CLR-V PA RD BRN, FN-MED, OCC CRS, SUBANG-SUBRND, MOD SRTD | |
| 2174 | 95 | CLYST: A/A | |
| | 5 | LS QTZ, A/A OFTEN BRN, CRS-V CRS | |
| 2177 | 70 | CLYST: PA GRY-WH GRY AND RD BRN, SFT, A/A, CALC-MOD CALC, OCC PA GRN GRY | |
| | 30 | SD: PREDOM LS QTZ, CLR-CLDY-PA YEL BRN-BRN, V FN-V CRS, PRED FN-MED, SUBANG-RND, PR SRTD | |
| 2180 | 80 | CLYST: RD BRN, PA GRY, WH, SFT A/A OCC GRN | |
| | 20 | SD: A/A PRED CRS, PA YEL-BRN, CLR-CLDY, SUBRND | |
| | TR | LST: WH, SFT, ARG | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 14.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2183 | 75 | CLYST: PREDOM WH GRY- PA GRY, OCC PA RD BRN, OCC GN GRY A/A SFT, V CALC | |
| | 25 | SD: A/A V FN-CRS CLR-CLDY-PA YEL | CORE NO.1 |
| 2204 | 80 | SLTST: MED GRY-BRN GRY, FRM, SPLINTRY, CALC, OFTEN W/V FN QTZ GRNS | SL LIGN CONTAM |
| | 20 | SD/SST: CLR LS QTZ, FN-CRS AND SST, PA GRY-GRN, FRI, MOD CALC, SL GLAU | |
| | TR | LST: CRM, FRM, WH, SFT, CLAY | |
| 2207 | 80 | SLTST: MED GRY-GRY BRN, GN, DK GRY, FRM, BLKY OCC SUBFISS, TR RD BRN, MOD CALC | |
| | 20 | CLYST: PA GRY SFT, V CALC | |
| | TR | LS QTZ: CRS-V CRS, RND, CLR-PA YEL | |
| | TR | LST: CRM, SFT-FRM | |
| 2210 | 60 | CLYST: PA GRY, SFT, STCKY, V CALC | |
| | 40 | SLTST: MED GRY-BRN GRY, SFT-FRM, BLKY, MICA | |
| | TR | PYR, LS QTZ: FN-CRS, CLR-MLKY | |
| | TR | LST: CRM, FRM-MOD HD, MICROXLN | |
| 2213 | 60 | CLYST: V PA GRY-GN GRY, SFT, V CALC-MOD CALC, CLR FLOATING V FN QTZ | MIN FLUOR |
| | 20 | SLTST: MED GRY-GRY BRN, FRI, FRM-HD, BLKY OCC SUBFISS, MICROMIC, SL GLAU | |
| | 10 | SD: CLR-MLKY-PA YEL, MED-V CRS, RND-SUBRND | |
| | 10 | LST: CRM-PA BUFF, FRM, BLKY, ANG, SL GLAU | |
| | TR | PYR | |
| 2216 | 90 | CLYST: PA GRY, SFT, V CALC, AMORPH, FLOATING V FN CLR QTZ | YEL MIN FLUOR |
| | 10 | CLYST: WH-CRM, SFT, BLKY, OCC FRM-HD GRDNG TO LST | NO CUT |
| | TR | ABUN PYR NODLS, SLTST: MED GRY, FRM, A/A, LS QTZ MED-V CRS, CLR-MLKY, RND | |
| 2219 | 80 | CLYST: PA GRY, SFT, AMORPH, V CALC, MARLY | ABUN YEL MIN FLUOR |
| | 10 | SLTST: MED GRY-GRN GRY, FRM-MOD HD, BRIT, SL CALC, MICROMIC | |
| | 10 | CLYST: CRM, SFT-FRM, OCC GRDNG TO HD LST, MOD-V CALC | |
| | TR | DOL/LST: CRM, HD, BLKY, ANG, MICROXLN | |
| | TR | PYR, TR LS QTZ, CLR-PA YEL, MED-CRS, RND | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT DATE: 15.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2222 | 90 | CLYST: WH-PA GRY, V SFT, STCKY A/A, OCC GRNISH | |
| | 10 | LST: CRM-PA BUFF, OCC DOL GRDNG TO CLYST, CRM V CALC | |
| | TR | SLTST: MED GRY A/A, SL TR PYR, SL TR QTZ, CLR-MLKY, SUBANG-ANG | |
| 2225 | 90 | CLYST: WH GRY, V SFT, STCKY, MOD-V CALC, MARLY | TR YEL MIN FLUOR |
| | 10 | DOL/LST: CRM-BUFF, FRM-MOD HD, BLKY | |
| | TR | SLTST: MED GRY-BRN GRY A/A | |
| | TR | PYR NOD, TR LS QTZ, MED-CRS, CLR | |
| 2228 | A/A | | |
| 2231 | A/A | | LIGN CONTAM |
| 2234 | 90 | CLYST: WH GRY, SFT, STICKY, AMORPH, MOD CALC-MARLY, OCC SLTY, SFT | LIGN CONTAM FROM MUD |
| | 10 | LST: CRM, SFT, BLKY, ARG, OCC DOL | YEL MIN FLUOR |
| | TR | SD: CLR, LS QTZ, V FN, SUBANG, OCC INCL IN CLYST | |
| | TR | PYR NOD, SPHERICAL | |
| 2237 | A/A | | |
| 2240 | 95 | CLYST: WH GRY, SFT A/A OCC V PA GRY AND SLTY | LIGN CONTAM |
| | 5 | LST: A/A OCC GRDNG TO WH, SFT, CALC, ARG | |
| | TR | PYR | |
| 2243 | 90 | CLYST: A/A | LOF OG LIGN CONTAM |
| | 10 | LST: A/A AND CRM-BUFF, FRM-MOD HD, ANG, MICROXLN | |
| | TR | PYR, SL TR CLR QTZ, V FN | |
| 2246 | 90 | CLYST: A/A | |
| | 10 | LST: A/A | |
| | TR | PYR | |
| 2249 | 90 | CLYST: PA GRY-WH GRY, SFT, STCKY, OCC FRM BLKY, SLTY IN PRT, SL MICROMIC, NON CALC | NO SHOWS |
| | 10 | LST: CRM-WH, SFT-FRM, OCC ANG, BLKY, MICROXLN | |
| | TR | PYR NOD OFTEN SPHERICAL | |
| | TR | SD: LS QTZ GRN | |
| 2252 | A/A | | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 16.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2255 | 85 | CLYST: PA GRY-WH GRY, SFT-FRM, PYR, STCKY, OCC BLKY, SLTY IN PRT, SL MICROMIC, NON CALC | NO SHOWS |
| | 15 | LST: CRM-WH, SFT-FRM, OCC ANG, BLKY MICROXLN | |
| | TR | SST: WH-PA GRY, V FN, FRI, CALC CMT ANG-SUBANG, W/LS, CLR, QTZ GRNS, OCC LT BRN, TR: PYR | |
| 2258 | 85 | CLYST: A/A | SL LIGN CONTA |
| | 10 | LST: A/A | NO SHOWS |
| | 5 | SD/SST: A/A | MIN FLUOR |
| | TR | PYR NOD | |
| 2261 | 100 | CLYST: V PA BRN GRY-WH GRY, SFT, STCKY, MOD CALC, SL SLTY | |
| | TR | LST: A/A, PYR, SD | |
| 2264 | 100 | CLYST: A/A IN PRT SLTY | |
| | TR | A/A | |
| 2267 | 100 | CLYST: A/A | |
| | TR | PYR | |
| | TR | SD: CLR, LS QTZ, V FN, SUBANG | |
| 2270 | 95 | CLYST: A/A | |
| | 5 | LST: A/A | |
| | TR | PYR | |
| 2273 | 60 | CLYST: A/A | BRIGHT WH FLU |
| | 40 | CLYST: DK BRN, SFT, OCC FRM, BLKY, SL CALC, V OCC SUBFISS, SL SLTY | |
| | TR | LST, PYR, SD A/A | |
| 2276 | 80 | CLYST: DK BRN, OCC DK GRY, SFT-FRM, MICROMIC, NON CALC | |
| | 20 | CLYST: WH-GRY A/A | |
| | TR | LST: A/A, PYR, SL TR LS QTZ | |
| 2279 | 100 | CLYST: DK GRY-BLK, DK BRN, SFT-FRM BLKY, V OCC SUBFISS, MICROMIC, NON-SL CALC | |
| | TR | CLYST: WH GRY A/A | |
| 2282 | 100 | CLYST/SH: DK BRN-BLK GRY, SFT-FRM, BLKY-FISS, MICROMIC A/A, TR BLK, SHINY, CARB MATERIAL IN SH | FEW SPKS OF DULL YEL FLUO |
| | TR | CLYST: WH GRY, SST: PA GRY (CVGS) | LIGN IN THE MUD |
| 2285 | A/A | | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 16.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2288 | 100 | CLYST: DK BRN-BLK GRY, DK GRY, SFT-FRM, BLKY-FISS, MICROMIC, TR BLK, SHINY, CARB, MATERIAL IN SH | NO SHOWS |
| 2291 | 100 | CLYST: A/A | |
| 2294 | A/A | | SOME BLUE WH FLUOR ON SOME SURFACES OF CLYST/SH |
| 2297 | A/A | | |
| 2300 | 100 | CLYST: DK BRN, BLK GRY, V SFT, OCC FRM, SH IN PRT, MICROMIC, SL CALC | NO CUT |
| | TR | LST: WH, FRM | |
| 2303 | A/A | | |
| 2306 | 100 | CLYST/SH: DK BRN, A/A, OCC FISS, CARB | |
| | TR | CLYST: BL GRY, FRM, PYR | |
| | TR | LST: WH, SFT | |
| 2309 | 100 | CLYST: A/A | |
| | TR | LST: A/A | |
| | TR | PYR | |
| | TR | LS QTZ, CLR, FN, RND | |
| 2312 | 100 | SH/CLYST: V DK GRY, SFT-FRM, OCC MOD HD, BLKY-FISS IN PRT, SL-NON CALC, MICROMIC-MIC | |
| 2315 | 100 | CLYST/SH: DK GRY-DK BRN A/A | |
| 2318 | 95 | CLYST/SH: A/A | DULL YEL FLUO ON LST, MOD W CRUSH CUT IN PARTS |
| | 5 | LST: BUFF-PA BRN-DK BRN, V HD, ANG, MICROXLN INTBDD W/DK CLYST | |
| | TR | CLYST: BL GRY, FRM, STKY | |
| | TR | PYR, TR SST: LT GRY-WH, V FN, WELL CMTD, CALC | |
| 2321 | 90 | CLYST: DK BRN-DK GRY, SFT, OCC FRM, BLKY, SL CALC | DULL YEL-BRIG YEL MIN FLUOR |
| | 10 | LST: WH, CRM, BUFF, PA BRN, SFT TO V HD, ANG, MICROXLN | |
| 2324 | 90 | CLYST: DK GRY, ELSE A/A | |
| | 10 | LST: A/A | |
| 2327 | A/A | | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 17.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2330 | 70 | CLYST: DK BRN-DK GRY, OCC MED GRY, SFT, ELSE A/A, OCC FRM, BLKY MICROMIC | DULL YEL-BRIG YEL MIN FLUOR |
| | 30 | LST: WH, CRM, BUFF, PA BRN, SFT TO V DH, ANG, MICROXLN, ARG, OCC SUCROSIC, DOL, TR PYR | |
| 2333 | A/A | | |
| 2336 | 90 | CLYST: A/A BUT GENERALLY LIGHTER COLOUR | |
| | 10 | LST: A/A BUT WH-CRM-BUFF-BRN, BRN TENDS TO BE DOL | |
| | TR | PYR NOD, OCC PYR WOOD FRGS | |
| 2339 | A/A | CLYST: LIGHTER IN COLOUR | |
| 2342 | 90 | CLYST: A/A | |
| | 10 | LST/DOL | |
| | TR | PYR | |
| 2345 | 80 | CLYST: MED BRN GRY-MED GRY, SFT-FRM, SL CALC, OCC GRN | |
| | 20 | LST: A/A | |
| | TR | PYR | |
| 2348 | 80 | CLYST: MED BRN GRY-GRY, SFT-FRM, CALC-V CALC, OCC SUBFISS-FISS | |
| | 20 | LST: WH-GRY, ANG, FRM-V HD | |
| 2351 | 80 | CLYST: A/A | YEL MIN FLOUR |
| | 15 | LST: A/A | |
| | 5 | SH: DK BRN, FISS | |
| 2354 | 80 | CLYST: A/A | |
| | 15 | LST: A/A | |
| | 5 | SH: A/A | |
| | TR | PYR | |
| 2357 | 80 | CLYST: A/A | YEL MIN FLOUR |
| | 10 | LST: A/A | |
| | 10 | SH: A/A | |
| 2360 | 40 | CLYST: A/A | |
| | 30 | SH: A/A | |
| | 30 | LST: A/A | |
| | TR | PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 17.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2363 | 80 | CLYST: MED GRY BRN, SFT, NON CALC | |
| | 15 | SH: MED GRY-DK GRY, MOD FISS-FISS | |
| | 5 | LST: WH-GRY, ANG, FRM-V HD | |
| | TR | PYR | |
| 2366 | 60 | CLYST: A/A | |
| | 40 | SH: A/A | |
| | TR | PYR, OFTEN FINELY DISS, LS QTZ GRNS | |
| 2369 | 80 | CLYST: GRY, FRM-FRI | |
| | 10 | SH: A/A | |
| | 10 | LST: WH, LT BRN-BRN, ANG-SUBANG, OFTEN SDY, SUCROSIC OCC DOL | |
| | TR | PYR, LS QTZ GRNS | |
| 2372 | 50 | CLYST: A/A OCC GRN | |
| | 25 | SH: A/A | |
| | 20 | LST/DOL | |
| | 5 | SD: WH, GRY-LT BRN, SUBRND-SUBANG | |
| | TR | PYR | |
| 2375 | 80 | CLYST: MED GRY-DK GRY A/A | SL LIGN CONTA |
| | 10 | LST/DOL: PREDOM BUFF, HD, ANG, OCC LAM, CRM-BUFF, DK BRN | DULL YEL MIN FLUOR |
| | 10 | SH: DK GRY, SPLNTRY, FISS-SUBFISS, MICROMIC, NON-SL CALC | |
| | TR | PYR | |
| 2378 | A/A | | |
| 2381 | 65 | CLYST: A/A | |
| | 20 | DOL/LST: A/A | |
| | 15 | SH: A/A | |
| | TR | PYR | |
| 2384 | 90 | CLYST: WH GRY-MED GRY, SFT STICKY, NON CALC | V SL TR MIN FLUOR |
| | 5 | SH: A/A | |
| | 5 | DOL/LST: A/A | |
| | TR | PYR | |
| 2387 | 90 | CLYST: WH GRY-MED GRY, GRN, SFT OCC FRM, AMORPH, BLKY | |
| | 5 | LST/DOL: A/A | |
| | 5 | SH: A/A | |
| | TR | PYR, V SL TR LS QTZ GRNS | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 17.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2390 | 100 | CLYST: PREDOM WH GRY, SFT, OCC SL FRM, NON CALC | |
| | TR | SH: DK GRY, SPLNTRY, FISS-SUBFISS, MICROMIC, NON-SL CALC, TR LST PREDOM BUFF, HD, ANG, PYR | |
| 2393 | 100 | CLYST: WH GRY, OCC MED GRY, SFT OCC FRM BLKY-SUBFISS, SLTY IN PRT, NON CALC | |
| | TR | LST, PYR | |
| 2396 | 100 | CLYST: A/A, MICROMIC | |
| | TR | A/A, TR PYR WOOD FRAGS | |
| 2399 | 100 | CLYST: A/A | SL TR MIN FLU |
| | TR | DOL/LST: BUFF-PA BRN, HD, ANG, SUCROSIC | |
| 2402 | 100 | CLYST: PA GRY-WH GRY, SFT A/A, SL TR SH, GN GRY, SUBFISS, SLTY IN PRTS | |
| | TR | CLYST: WH, SFT, MOD CALC | |
| | TR | LST, PYR | |
| 2405 | 90 | CLYST: PREDOM PA GRY, OCC MED-DK GRY, GRN GRY, SFT, SL SLTY, SL MICROMIC, FRM, SUBFISS MICROMIC, SL-NON CALC | |
| | 10 | LST/DOL: BUFF-PA BRN, FRM-HD, CRM IN PRT, ARG, OCC DOL, HD ANG, SUCROSIC | |
| | TR | PYR: FN DISS + NOD | |
| 2408 | A/A | | WEAK DULL YEL MIN FLUOR |
| 2411 | 95 | CLYST: A/A | |
| | 5 | LST/DOL: A/A | |
| | TR | PYR: A/A | |
| 2414 | A/A | | |
| 2417 | 90 | CLYST: GRY-DK GRY, DK GRY-BLK, FRI-MOD HD, SUBFISS, NON CALC | |
| | 10 | LST: WH, GRY-LT BRN, ANG-SUBANG, FRM-HD | |
| | TR | PYR | |
| 2420 | 95 | CLYST: A/A | |
| | 5 | LST: A/A | |
| 2423 | A/A | | |
| 2426 | A/A | | LIGN CONTAM |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 18.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2429 | 100 | CLYST: PREDOM PA GRY, SFT A/A, OCC MED DK GRY, FRM, BLKY-FISS | |
| | TR | LST/DOL: BUFF-CRM-PA BRN A/A, PYR | |
| 2432 | 60 | CLYST: PA GRY A/A | V SL TR DULL YEL FLUOR |
| | 40 | SH: MED GRY-DK GRY, GN GRY, OCC DK BRN, FRM, MOD HD, SL MICROMIC, BLKY-SPLINTRY, SUBFISS-FISS, NON CALC | |
| | TR | SLTST: PA BRN-BRN GRY, FRM | |
| | TR | PYR NOD | |
| | TR | DOL/LST: A/A | |
| 2435 | 80 | SH: PREDOM MED GRY-DK GRY, BRN-DK BRN A/A | |
| | 20 | CLYST: A/A | |
| | TR | LST/DOL: A/A | |
| | TR | SLTST: BRN-GN MOTTLED, FRI, FRM | |
| | TR | PYR | |
| 2438 | 60 | SH: A/A V OCC RD BRN | |
| | 40 | CLYST: PA BRN GRY, SFT, AMORPH, NON CALC | |
| | TR | LST/DOL, PYR | |
| 2441 | A/A | | |
| 2444 | 95 | SH: MED GRY-DK GRY, FRM-MOD HD, BLKY, SUBFISS-FISS, NON CALC | |
| | 5 | CLYST: A/A | |
| | TR | LST, PYR | |
| 2447 | 50 | SH: LT GRY-DK GRY A/A | |
| | 45 | CLYST: GRY, FRM, ELSE A/A | |
| | 5 | LST: A/A | |
| 2450 | 50 | CLYST: A/A | |
| | 45 | SH: A/A | |
| | 5 | LST: A/A | |
| 2453 | 95 | SH: LT GRY, GRY, DK GRY, BLK, MICROMIC, MOD HD-HD, SUBFISS-FISS, NON CALC | DULL YEL MIN FLOUR |
| | 5 | LST: WH-LT BRN, SUBANG-SUBRND, XLN, SUCROSIC | |
| 2456 | 50 | CLYST: GRY, FRM, NON CALD | |
| | 45 | SH: A/A | |
| | 5 | LST: A/A | |
| | TR | PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 18.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2459 | 80 | SH: LT GRY, GRY, DK GRY, BLK, MICROMIC, MOD HD-HD, SUBFISS-FISS, NON CALC | |
| | 15 | CLYST: GRY, FRM, NON CALC | |
| | 5 | LST: WH-LT BRN SUBANG-SUBRND, XLN, SUCROSIC | |
| 2462 | A/A | | |
| 2465 | 70 | CLYST: DK GRY, SFT, STCKY, SL CALC | |
| | 25 | SH: A/A OCC GRN, SLTY, OCC GREASY TEXTURE | |
| | 5 | LST: A/A | |
| 2471 | 60 | CLYST: DK GRY-MED GRY, GRY BRN, SFT, SLTY, SL DOL | LIGN CONTAMIN |
| | 40 | SH: DK GRY-MED GRY, BRN GRY, FRM-MOD HD, BLKY, SLTY, MICROMIC | |
| | TR | LST: A/A | |
| 2474 | A/A | | |
| 2477 | 60 | CLYST: PA BRN, GRY-MED GRY, SFT, SLTY, CARB SPKS | |
| | 35 | SH: MED GRY-DK GRY A/A | |
| | 5 | CLYST: OFF WH, SFT-FRM, SL-MOD CALC | |
| | TR | PYR | |
| | TR | LST/DOL: CRM-BRN, HD, ANG | |
| 2480 | 100 | CLYST/SH: MED GRY-DK GRY, SFT-FRM, BLKY, OCC SUBFISS-FISS, NON-SL CALC, MICROMIC, SLTY IN PRT | NO SHOWS |
| | TR | SLTST: PA GRY-MED GRY, FRM, CALC, MICROMIC | |
| | TR | LST/DOL: PA GRY-GRY BRN, HD, ANG, SUCROSIC | |
| 2483 | 100 | CLYST/SH: PREDOM CLYST A/A, SLTY | |
| | TR | SLTST: A/A | |
| | TR | LST/DOL | |
| | TR | SD: V FN, LS QTZ, CLR, SUBANG | |
| 2486 | A/A | | |
| 2489 | A/A | | |
| 2492 | 100 | CLYST: A/A OCC SH, SLTY | |
| | TR | A/A | LIGN CONTAM |
| | TR | PYR NOD | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 18.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2495 | 100 | CLYST: MED GRY-DK GRY, SFT-FRM, BLKY OCC SUBFISS-FISS, NON-SL CALC, MICROMIC, SLTY IN PRT, CARB SPKS | |
| | TR | SLTST: DK GRY-MED GRY, CARB | |
| | TR | LST: CRM-BRN, SFT-HD,. ANG, BLKY, ARG | |
| | TR | SD/SST: CLR-WH, V FN, FRI, SUBANG, PYR | |
| 2498 | A/A | BUT CLYST OCC V DK GRY-BLK, HD, BRIT, MICROMIC | |
| 2501 | 100 | CLYST: MED GRY-DK GRY, SFT, NON CALC, SL MICROMIC, SLTY | |
| | TR | CARB: BLK, HD, BRIT | |
| | TR | LST: A/A | |
| | TR | LS QTZ, PYR | |
| | TR | SLTST: MED GRY-BRN GRY, FRI-MOD HD, MICA, CARB | |
| 2504 | 100 | CLYST: PA-MED BRN GRY, SFT, ODD FRM A/A | |
| | TR | A/A | |
| 2507 | 90 | CLYST: A/A | DULL YEL FLUOI |
| | 10 | SLTST: PA GRY-MED GRY, BRN GRY, FRI, CARB, OFTEN CRM INCL, CALC | NO SHOWS |
| | TR | SD/SST: PA GRY, WH, V FN, FRI, SUBANG W/LS QTZ, CRS CLR SUBANG | |
| | TR | PYR, LST | |
| 2510 | 100 | CLYST: PA GRY BRN A/A | |
| | TR | SLTST: A/A | NO SHOWS |
| | TR | A/A | LIGN COMTAM |
| 2513 | 50 | CLYST: A/A | |
| | 50 | SLTST: WH GRY-DK GRY, MOD FRM, CARB, SL CALC, OCC V FN SST | |
| | TR | PYR, LST A/A | |
| 2516 | 60 | SLTST: A/A | |
| | 40 | CLYST: A/A | |
| | TR | PYR | |
| 2519 | 60 | CLYST: A/A, BUT SL CALC | NO FLUOR |
| | 40 | SLTST: A/A | |
| | TR | PYR, LST | |
| 2522 | 50 | CLYST: A/A | DULL YEL FLUO |
| | 50 | SLTST: A/A | IN PRTS. |
| | TR | PYR | NO CUT |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 18.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2525 | 60 | CLYST: PA-MED BRN GRY, SFT, OCC FRM | |
| | 40 | SLTST, TR PYR | |
| | TR | PYR | |
| 2528 | 60 | CLYST: MED GRY-DK GRY, SFT, A/A | SL DULL YEL |
| | 40 | SLTST: DK GRY-MED GRY, OCC BRN GRY, FRI BLKY, MICROMIC | MIN FLUOR |
| | TR | LST/DOL: A/A OCC PA RD BRN BANDS | |
| 2531 | 60 | CLYST: A/A | |
| | 40 | SLTST: A/A | |
| | TR | LST: A/A, PYR | |
| | TR | SST: PA GRY-WH, V FN, FRI, CALC CMTD | |
| 2534 | 60 | CLYST: A/A | NO SHOWS |
| | 40 | SLTST: A/A | |
| | TR | A/A: LST, PYR | |
| | TR | SST: WH-PA GRY, V FN, FRI, CALC CMT V SL GLAU | |
| | TR | POSS TR COAL, BLK HD, BRIT, BUT LIGN CONTAM | |
| 2537 | A/A | | NO SHOWS |
| 2540 | 80 | CLYST: MED GRY-MED BRN GRY, SFT, NON CALC | NO SHOWS |
| | 20 | SLTST: MED GRY-DK GRY, BLKY, MICROMIC | TR MIN FLUOR |
| | TR | SHALE: BLK, HD, BLKY, NON CALC | |
| | TR | LST: CRM-PA BRN, SFT-FRM | |
| 2543 | 60 | CLYST: PA GRY-MED GRY, SFT A/A | |
| | 20 | SH: DK GRY, MED GRY BRN, HD-FRM BLKY-SUBFISS, OCC SL GRN | |
| | 20 | SLTST; MED GRY-GRY BRN, MICA, CARB, CRM SPKS, FRI-MOD HD | |
| | TR | SST: WH-CLR, FRM, V FN, V SL GLAU, SUBANG | |
| | TR | LST/DOL: BRN, CRM, HD, ANG A/A | |
| | TR | PYR | |
| 2546 | 80 | CLYST: PA GRY-MED GRY, BRN GRY, SFT-FRM, BLKY, NON-SL CALC, OCC GRN | |
| | 10 | SLTST: PA GRY-MED GRY, FRM, FRI, CALC, SL CARB, TENDING TO V FN SST | |
| | 10 | LST/DOL: BRN, HD, ANG, MICROXLN | |
| 2549 | 80 | CLYST/SH: A/A | |
| | 10 | SLTST: A/A | |
| | 10 | LST/DOL: A/A, | |
| | TR | PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 19.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2552 | 85 | CLYST/SH: PA GRY-MED GRY, BRN GRY, OCC GRN, SFT-FRM, BLKY, NON-SL CALC | |
| | 10 | SLTST: PA GRY-MED GRY, FRM, FRI, CALC | |
| | 5 | LST/DOL | |
| | TR | SST: WH-PA GRY, V FN, FRI, MICROMIC, SL-CALC, SUBANG-SUBRND, MOD POR, CARB MAT, PYR | |
| 2555 | A/A | | |
| 2558 | 80 | CLYST/SH: A/A | |
| | 20 | SLTST: BRN GRY, FRM, BLKY, MICROMIC, CARB | |
| | TR | SST: A/A | |
| | TR | LST/DOL: A/A, CRM, FRM, GREASY, OFTEN SUCROSIC, SDY | |
| | TR | PYR | |
| 2561 | 70 | CLYST/SH: A/A | |
| | 20 | SLTST: A/A | |
| | 10 | LST: CRM, FRM, BLKY, ANG, OCC GREASY, SL CARB | |
| | TR | SST: A/A | |
| 2564 | 50 | SH: GRY-BLK, MOD HD, SUBFISS-FISS, NON CALC | LIGN CONTAM |
| | 50 | SLTST: GRY, FRM, SL CALC, MICROMIC-MICA, GRDNG TO V FN SST | |
| | TR | LST: WH-GRY, FRM, BLKY-ANG, SNDY, WOOD FRAGS, | NO SHOWS |
| 2567 | 80 | SH AND SLTST: A/A | MIN FLUOR ONL |
| | 20 | LST: A/A SNDY AND PYRITIC | |
| 2570 | 80 | SH: AND SLTST: A/A | |
| | 20 | LST: A/A | |
| | TR | SST: PA GRY, V FN, MIC, MOD HD, FRI, SUBANG | |
| 2573 | 60 | SH: A/A | |
| | 30 | SLTST: A/A GRDING TO V FN SST IN PRT | |
| | 10 | LST: A/A | |
| 2576 | 60 | SLTST: A/A | |
| | 20 | SH: DK GRY-BLK, BLKY, SUBFISS, MICROMIC | |
| | 20 | LST/DOL: A/A | |
| 2579 | A/A | | |
| 2582 | 80 | SH/CLYST: MED GRY-DK GRY, BLK, FRM-MOD HD, BLKY-SUBFISS, SL MICROMIC, DOL-SL CALC | |
| | 20 | SLTST: A/A | |
| | TR | DOL/LST: BUFF-PA BRN, HD, ANG A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 19.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2585 | 90 | SH/CLYST: MED GRY-DK GRY, BLK, OCC BLUE GRY, FRM-MOD HD, BLKY-SUBFISS, SL MICROMIC, DOL-SL CALC, | |
| | 10 | SLTST: GRY, FRM, SL CALC, MICROMIC-MICA GRDNG TO V FN SST | |
| | TR | LST/DOL, PYR | |
| | TR | WOOD FRGS | |
| 2588 | 80 | CLYST/SH: MED GRY-DK GRY, SFT, STCKY, FRM, BLKY-SUBFISS | |
| | 15 | SLTST: BRN-BRN GRY, ELSE A/A | |
| | 5 | SST: PA GRY/WH-PA BRN, V FN, FRI, MOD POR, OCC CRS LS QTZ | |
| | TR | PYR, PYRITIZED WOOD FRGS | |
| 2591 | 70 | CLYST/SH: PREDOM MED-DK GRY, OCC BLK, OCC PA GRY, GN, W/FN LAM BLK GRY-WH GRY, FRM BLKY, SUBFISS-FISS, MICROMIC | HIGH LIGN CONTAM NO SHOWS |
| | 30 | SLTST: MED GRY-BRN GRY, SFT-FRI, SL CARB, MICROMIC, SL CALC | |
| | TR | SST: WH, V FN, FRI, SUBANG | |
| | TR | PYR NOD ABUND | |
| | TR | DOL/LST: A/A CVGS | |
| 2597 | 85 | SH: A/A, OCC BLK CARB STRKS | |
| | 15 | SLTST | |
| | TR | SST, PYR A/A | |
| 2600 | 70 | SH: A/A | |
| | 30 | SLTST: A/A | |
| | TR | PYR, LST | |
| 2603 | 60 | SH: A/A | |
| | 35 | SLTST: A/A | |
| | 5 | CLYST | |
| 2606 | 60 | SH: MED-DK GRY A/A | |
| | 40 | SLTST: A/A | |
| 2609 | 70 | SH: A/A | |
| | 30 | SLTST: A/A | |
| | TR | PYR. | |
| 2612 | 90 | SH/CLYST: A/A | |
| | 10 | SLTST, SL TR LST, WH, SFT | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HERIGSTAD DATE: 20.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2615 | 80 | SH/CLYST: PA GRY, SFT, MED GRY-DK GRY, FRM-HD, BLKY, SUBFISS-FISS, MICROMIC, NON CALC | NO SHOWS |
| | 20 | SLTST: MED GRY-MED BRN GRY A/A | |
| | TR | SST: WH, CLR, V FN | |
| | TR | PYR, TR LST | |
| 2618 | 75 | SH/CLYST: A/A | |
| | 25 | SLTST: A/A | |
| | TR | SST: CLR QTZ, OCC WH, V FN-FN, LS, SUBANG-RND | |
| | TR | PYR, LST | |
| 2621 | 85 | SH/CLYST: A/A | |
| | 15 | SLTST: A/A | |
| | TR | SST: A/A | |
| | TR | PYR, LST | |
| 2624 | 85 | SH/CLYST: A/A | |
| | 15 | SLTST: A/A | |
| | TR | SST: A/A | |
| | TR | PYR, LST | |
| 2627 | 90 | SH/CLYST: A/A | |
| | 10 | SLTST: A/A | |
| | TR | SST: A/A | |
| | TR | PYR, LST | |
| 2630 | 85 | SH/CLYST: A/A | |
| | 10 | SLTST: A/A | |
| | 5 | SST: PRTLY CALC CMT, FRI-MOD HD, ELSE A/A | |
| | TR | PYR, LST | |
| 2633 | 70 | SH/CLYST: PA GRY, MED GRY-BRN GRY, BLKY, SFT, MOSTLY FRM-MOD HD, SUBFISS-FISS, MICROMIC, NON-SL CALC, SLTY | |
| | 15 | SLTST: A/A | |
| | 10 | SST: A/A | |
| | 5 | LST: WH-BUFF, SFT-MOD HD, PRTLY ARG | |
| | TR | PYR | |
| 2636 | 70 | SH/CLYST: A/A | |
| | 15 | SLTST: A/A | |
| | 10 | SST: A/A | |
| | 5 | LST: A/A | |
| | TR | PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: HELLE/CLINT DATE: 20.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2639 | 50 | SH: GRDNG TO CLYST, MED GRY-BRN GRY, SFT-FRM, OCC MOD HD, SLTY, SUBFISS, NON-SL CALC, MICROMIC | NO SHOWS |
| | 30 | SLTST: MED GRY-MED BRN GRY, FRI, MICROMIC, SL CALC | |
| | 15 | SST: CLR QTZ , WH, V FN-VN, PRTLY CALC CMT, FRI-MOD HD | |
| | 5 | LST: WH-BUFF, SFT-MOD HD | |
| | TR | PYR | |
| 2642 | 70 | SH: A/A | |
| | 20 | SLTST: A/A | |
| | 5 | SST: A/A | |
| | 5 | LST: A/A | |
| | TR | PYR | |
| 2645 | 75 | SH: OCC LT GRNISH GRY, ELSE A/A | |
| | 15 | SLTST: A/A | |
| | 10 | SST: A/A | |
| | TR | LST: A/A, PYR | |
| 2648 | 70 | SH: A/A | |
| | 20 | SLTST: A/A | |
| | 10 | SST: CLR QTZ, V FN-CRS, SUBANG, LS, OCC CALC CMT | |
| | TR | LST: A/A | |
| | TR | PYR | |
| 2651 | 70 | SH: A/A | |
| | 20 | SLTST: A/A | |
| | 10 | SST: A/A | |
| | TR | LST: A/A | |
| | TR | PYR | |
| 2654 | 70 | SH: A/A | |
| | 15 | SLTST: A/A | |
| | 10 | SST: A/A | |
| | 5 | LST: A/A | |
| | TR | PYR | |
| 2657 | 60 | SH: A/A | BRIGHT YEL WH FLUORS, NO CUT FROM AGGREGATES OF SST |
| | 25 | SD/SST: CLR-V PA BRN, V FN-FN, WEAKLY CMTD AND LS FN-MED OCC CRS, SUBANG-SUBRND, OCC RND, POORLY SRTD, MOD POR, V SL GLAU, FRI, NON CALC | |
| | 15 | SLTST: A/A | |
| | TR | PYR, LST A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32,82" N, 10° 16' 52,92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 20.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2660 | 60 | SST/SD: CLR-WH, V FN-V CRS, LS QTZ AND V FN-FN WEAKLY CMTD A/A | BRIGHT YEL FLUORS FROM |
| | 25 | SLTST: BRN GRY-GRY, FRI, MICROMIC, SL CALC | AGGR. OF SST |
| | 15 | SH: GRDING TO CLYST, SFT-FRM, OCC MOD HD, SLTY, MED GRY-BRN GRY, SUBFISS, NON-SL CALC, MICROMIC | NO CUT. |
| | TR | PYR | CUT |
| | TR | LST: WH, SFT, DOL LST: BRN-BUFF, HD, ANG | CORES NO. 2 AMD NO. 3 |
| 2690 | 60 | SH: MED GRY-MED BRNISH GRY, FRM, BLKY, SUBFISS, MICA, NON CALC, PRTLY SLTY | BRIGHT YEL FLUORS FROM |
| | 40 | SLTST: GRY-BRNISH GRY, FRI, MICA, PYRITIC, NON CALC, OCC GRDING TO V FN SST | A FEW SST AGGREGATES |
| | TR | SST: CLR QTZ, V FN-MED, LS | |
| | TR | PYR, GLAU | |
| | TR | LST: WH-BUFF, SFT-FRM, SL ARG | |
| 2693 | 60 | SH: A/A | |
| | 40 | SLTST: A/A | |
| | TR | SST: A/A | |
| | TR | LST: A/A | |
| | TR | PYR | |
| 2696 | 60 | SH: A/A | |
| | 30 | SLTST: A/A | |
| | 10 | SST: A/A | |
| | TR | LST: A/A | |
| | TR | PYR | |
| 2699 | 70 | SH: A/A | |
| | 30 | SLTST: A/A | |
| | TR | SST: A/A | |
| | TR | LST: A/A | |
| | TR | PYR | |
| 2702 | 60 | SH: MED GRY-MED BRNISH GRY, FRM-MOD HD, BLKY, SUBFISS, MICROMIC, NON CALC, OCC SLTY | BRIGHT YEL FLUORS, MLKY. |
| | 25 | SLTST: GRY-BRNISH GRY, SFT-FRI, MICA, SL PYRITIC, NON CALC | WH BLUISH CRUSH CUT |
| | 15 | SST: CLR QTZ, V FN-MED, SUBANG-SUBRND, FRI-MOD HD OCC CALC CMT, FAIR SRTD, PRTLY W/KAOLIN MATRIX | FROM SST |
| | TR | LST: WH-BUFF, SFT-HD, ARG | |
| | TR | PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 22.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2705 | 80 | SST: MOSTLY MED, CLR QTZ, V FN-MED, SUBANG-SUBRND,FRI-MOD HD, OCC CALC CMT, FAIR SRTD, PRTLY W/KAOLIN MATRIX | |
| | 15 | SH: MED GRY-MED BRNISH GRY, FRM-MOD HD, BLKY-SUBFISS, MICROMIC, NON CALC, OCC SLTY | |
| | 5 | SLTST: GRY-BRNISH GRY, SFT-FRI, MICA, SL PYRITIC NON CALC | |
| | TR | LST: WH-BUFF, SFT-HD, ARG | |
| | TR | PYR | |
| 2706 | A/A | BOTTOMS UP | CUT CORE NO. 4 |
| 2726 | 70 | SH: MED-DK GRY, OCC BRNISH GRY, MOD HD-FRM, MICROMIC, NON CALC, SLTY, OCC SL CARB | |
| | 30 | SLTST: LT GRY-LT BRN GRY, FRM-MOD HD, MICROMIC, NON-SL CALC | |
| | TR | SST: CLR QTZ, V FN-MED, SUBANG-RND | |
| | TR | PYR, LST | |
| 2729 | 60 | SH: A/A | HEAVY LIGN CONTAM |
| | 40 | SLTST: A/A | FEW SPKS YEL WH FLUOR ON SST |
| | TR | SST: A/A | |
| | TR | PYR | |
| 2732 | 60 | SLTST: LT GRY-LT BRN GRY-MED GRY, FRM, NON-SL CALC | FEW SPKS YEL WH FLUOR ON SST |
| | 20 | SH: MED DK-GRY, TR DK BRN, FRM-MOD HD MICROMIC | |
| | 10 | SLTST: CLR LS QTZ, MED-V CRS, LT GRY, V FN-FN FRI, SUBANG-SUBRND, W SRTD | |
| | TR | PYR | |
| 2735 | 50 | SH: A/A | NO SHOWS |
| | 50 | SLTST: A/A | |
| | TR | SD/SST, PYR | |
| 2738 | 80 | SH: DK GRY-BLK, OCC GN, BLKY-SUBFISS, MICROMIC, NON CALC | HIGH LIGN CONTAM |
| | 20 | SLTST: LT GRY-MED GRY A/A | NO SHOWS |
| | TR | PYR NOD | |
| | TR | SST: A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 22.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2741 | 70 | SH: DK GRY-DK BRN GRY, HD-MOD HD, BLKY-SUBFISS, NON-CALC | NO SHOWS |
| | 20 | SLTST: MED GRY-DK GRY, BLK, MOD HD, V PYRITIC IN PRTS | |
| | 10 | SST: CLR LS QTZ, V FN-V CRS, SUBANG-RND, POOR SRTD | |
| 2744 | 60 | SD/SST: CLR, LS QTZ, PREDOM MED-CRS SUBANG-SUBRND, MOD SRTD | |
| | 30 | SH: A/A | |
| | 10 | SLTST: A/A | |
| | TR | KAO: WH, SFT, AMORPH | |
| | TR | LST: WH, FRM, ANG, ARG | |
| 2747 | 50 | SD/SST: A/A OCC V CRSE-GRANULES, RND, OCC WEAK CALC CMT, FRI | NO SHOWS V WEAK YEL FLUOR PROBABL FROM CALC CMT |
| | 30 | SH: A/A | |
| | 20 | SLTST: A/A | |
| | TR | KAO, LST, PYR | |
| 2750 | 80 | SD/SST: CLR LS QTZ, PREDOM FN-CRS, OCC V FN AND V CRS A/A, OCC CALC CMTD | NO SHOWS |
| | 20 | SH: MED GRY-DK GRY A/A | |
| | TR | LST: WH, FRM-MOD HD, ANG, BLKY, ARG | |
| | TR | KAO | |
| 2753 | 75 | SD/SST: CLR-CLOUDY, PRED LS QTZ, PRED FN-MED, SUBANG, W SRTD, OCC CRS-V CRS, OCC WEAKLY CMTD, FRI, CALC CMT | NO SHOWS WEAK YEL MIN FLUOR FROM CALCITE CMT |
| | 20 | CLYST: WH-PA GRY, SFT, SL CALC | |
| | 10 | SH: A/A, TR PYR, LST, A/A | |
| 2756 | 75 | SD/SST: A/A | |
| | 25 | CLYST: WH-PA GRY, OCC FRM A/A | |
| | TR | SH, SLTST, KAO, MICA, PYR | |
| 2759 | 90 | SD/SST: CLR-CLOUDY, LS QTZ, PRED MED, OCC FN-CRS, SUBANG, MOD-W SRTD | FEW SPKS DULL MINERAL FLUOR |
| | 10 | CLYST/SH: PA GRY-WH GRY, SFT-FRM, BLKY, NON CALC | NO CUT OR CRUSH |
| | TR | SLTST: MED GRY, FRI, MICROMIC, NON CALC | |
| | TR | LST: WH, SFT-FRM, ANG, BLKY | |
| | TR | KAO: WH, SFT | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 23.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2762 | 50 | SD/SST: CLR-CLOUDY, LS QTZ, PRED MED, OCC FN-CRS, SUBANG, MOD-W SRTD | |
| | 30 | SLTST: MED GRY, FRI, MICROMIC, NON CALC | |
| | 20 | CLYST/SH: PA GRY-DK GRY, OCC FISS BLKY, NON CALC | |
| | TR | LST: WH, SFT-FRM, ANG, BLKY | |
| | TR | KAO: WH, SFT | |
| | TR | MICA FLAKES | |
| 2765 | 100 | SD/SST: A/A V OCC WEAKLY CALC CMTD | FEW SPKS SST SHOW MOD YEL FLUOR NO CUT. MAJORITY OF SI NO FLUOR NO |
| | TR | SH: A/A | |
| | TR | CLYST: WH, SFT, MOD CALC | |
| | TR | KAO | |
| 2768 | 100 | SD/SST: CLR LS QTZ, V FN-MED, V OCC V CRS, SUBANG-SUBRND, MOD W SRTD | CUT, SPKS MIN FLUOR |
| | TR | CLYST: WH, SFT, V CALC | |
| | TR | PYR, MICA FLAKES | |
| 2771 | 100 | SD/SST: A/A | NO SHOWS |
| | TR | A/A | |
| 2774 | 100 | SD/SST: A/A FN-MED, SUBANG | A/A |
| | TR | KAO: WH, SFT | |
| | TR | CLYST: PA GRY-MED GRY, FINELY LAM, FRM | |
| | TR | SH: DK GRY, BLKY, FRM, SL TR PYR | |
| 2777 | 100 | SD/SST: CLR LS QTZ A/A, FN-MED, OCC CRS-V CRS | LIGN IN MUD |
| | TR | KAO | NO SHOWS |
| | TR | SH: MED GRY-DK GRY A/A | |
| | TR | CLYST: PA GRY, SFT, MOD CALC | |
| 2780 | A/A | | NO SHOWS |
| | TR | MICA FLAKES, PYR | |
| 2783 | A/A | | NO SHOWS |
| | TR | SLTST: BRN GRY, V MICA, W/BLK, HD, BRIT COAL MATERIAL | |
| 2786 | 100 | SD/SST: A/A | NO SHOWS |
| | TR | KAO: A/A | |
| | TR | CLYST: A/A | |
| | TR | SH: DK GRY-BLK, HD, BRIT | |
| | TR | COAL: BLK, HD, SHINY, BRIT | |
| | TR | PYR | |
| 2789 | A/A | | NO SHOWS |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 24.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2792 | 100 | SD/SST: CLR LS QTZ, FN-MED, OCC CRS-V CRS, OCC W SIL CMTD | NO SHOWS |
| | TR | KAO | |
| | TR | CLYST: WH, SFT, SL CALC | |
| | TR | SLTST: MED BRN GRY, MOD HD, V MICA | |
| | TR | SH: MED GRY-V DK GRY, BLKY, SUBFISS, NON CALC | |
| | TR | PYR | |
| 2795 | 100 | SD/SST: CLR-CLDY, LS QTZ, PREDOM MED, OCC FN AND V CRS, SUBANG, W SRTD, OCC SST, V FN, MOD HD, SIL AND KAO CMTD | NO SHOWS |
| | TR | KAO: WH, SFT | |
| | TR | SH: MED GRY-DK GRY, BLK, HD, BRIT, SUBFISS | |
| | TR | MICA FLKS, SLTST: RD BRN, BRN GRY, MOD HD, SL TR PYR | |
| 2798 | A/A | | FEW SPKS SST SHOW YEL FLUO NO CUT OR CRUSHCUT |
| 2801 | 100 | SD: CLR QTZ, MED-CRS, OCC V CRS, SUBANG-SUBRND, W SRTD, OCC SST, V FN-FN, MOD HD, SIL CMTD, KAO, V OCC CALC CMT | |
| | TR | SH: A/A | |
| | TR | PYR, MICA | |
| 2804 | 100 | SD: A/A | |
| | TR | SH: A/A, PYR, MICA | |
| 2807 | 100 | SST: A/A | |
| | TR | SH: A/A, PYR, MICA | |
| 2810 | 100 | SD: A/A | |
| | TR | SH: A/A | |
| | TR | PYR, MICA | |
| 2813 | 100 | SD: A/A | |
| | TR | SH: A/A | |
| | TR | PYR, MICA | |
| 2816 | 90 | SD: A/A W/SST AGGREGATES, V FN-FN, MOD HD, SL SILIC CMTD, PRTLY CALC CMTD | |
| | 10 | SH: MED-DK GRY, OCC LT GRY, MOD HD-FRM, OCC HD, NON-SL CALC, SL MIC | |
| | TR | LST: WH-BUFF, SFT-MOD HD, ARG | |
| | TR | PYR, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 24.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2819 | 90 | SD: A/A W/SST AGGREGATES, V FN-FN, MOD HD, SL SILIC CMTD, PRTLY CALC CMTD | NO SHOWS |
| | 10 | SH: MED-DK GRY, OCC LT GRY, MOD HD-FRM, OCC HD, NON-SL CALC, SL MIC | |
| | TR | LST: WH-BUFF, SFT-MOD HD, ARG | |
| | TR | PYR, MICA | |
| 2822 | 95 | SST: A/ | |
| | 5 | SH: A/A | |
| | TR | LST: A/A | |
| | TR | PYR, MICA | |
| 2825 | 100 | SD: CLR QTZ, MED-CRS, SUBANG-SUBRND, LS, W SRTD W/ SST, V FN-FN, FRI-MOD HD, SL SILIC CMTD, KAO IN PRTS | NO SHOWS |
| | TR | SH: MED-DK GRY, MOD HD, MICA, SUBFISS | |
| | TR | LST: WH-BUFF, SFT-MOD HD, ARG | |
| | TR | KAO, PYR, MICA | |
| 2828 | 100 | SD: A/A | |
| | TR | SH: A/A | |
| | TR | LST: A/A, KAO, PYR, MICA | |
| 2834 | 100 | SD: A/A | |
| | TR | SH: A/A | |
| | TR | LST: A/A, KAO, PYR, MICA | |
| 2837 | 100 | SST: CLR-WH, V FN-FN, AGGREGATES, FRI-MOD HD OCC CALC CMTD, W/GRAINS OF LS SD, MED-CRS | |
| | TR | SH: A/A | |
| | TR | LST: A/A, KAO, PYR, MICA | |
| 2840 | 100 | SST: A/A | |
| | TR | SH: A/A | |
| | TR | LST: A/A, KAO, PYR, MICA | |
| 2843 | 100 | SST: A/A | |
| | TR | SH: A/A | |
| | TR | LST: A/A, KAO, PYR, MICA | |
| 2846 | 100 | SST: A/A | |
| | TR | SH: A/A | |
| | TR | LST: A/A, KAO, PYR, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 24.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2849 | 100 | SST: CLR-WH, V FN-FN, AGGREGATES, FRI-MOD HD OCC CALC CMTD, W/GRAINS OF SD, MED-CRS, LS | NO SHOWS |
| | TR | SH: MED-DK GRY, MOD HD, MICA, SUBFISS | |
| | TR | LST: WH-BUFF, SFT-MOD HD, ARG, KAO, PYR, MICA | |
| 2852 | 60 | SST: A/A | |
| | 40 | COAL: BLK, BRIT | |
| | TR | SH: A/A | |
| | TR | LST: A/A, KAO, PYR, MICA | |
| 2855 | 75 | SST: CLR-WH, QTZ, MOSTLY MED-CRS, SUBANG-SUBRND, LS, V FN-FN, SL SILIC, MOD HD-FRI-LS, PRTLY W/KAO MATRIX | |
| | 25 | COAL: BLK, BRIT, HD | |
| | TR | SH: MED-DK GRY, MOD HD, SL MICA | |
| | TR | MICA, KAO | |
| 2858 | 90 | SST: MOSTLY V FN-FN SST AGGREGATES, ELSE A/A | |
| | 10 | COAL: A/A | |
| | TR | A/A | |
| 2861 | 100 | SST: A/A | |
| | TR | COAL: A/A | |
| | TR | A/A | |
| 2864 | 100 | SST: A/A | |
| | TR | A/A | |
| 2867 | 100 | SST: A/A | |
| | TR | A/A | |
| 2870 | 100 | SST: A/A | |
| | TR | A/A | |
| 2873 | 80 | SST: A/A | |
| | 20 | COAL: A/A | |
| | TR | A/A | |
| 2876 | 85 | SST: A/A | |
| | 15 | COAL: A/A | |
| | TR | A/A | |
| 2879 | 90 | SST: A/A | |
| | 10 | COAL: A/A | |
| | TR | A/A | |
| | TR | SLTST: BRN GRY, FRM-HD | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 24.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2882 | 90 | SST: WH-WH GRY, V FN-FN, MOD HD, SUBANG, SILIC CMT, OCC SL CALC, W SRTD, MICA, FR POR, CLR-WH LS QTZ, FN-MED OCC CRS, SUBANG-SUBRND | NO SHOWS |
| | 10 | COAL: BLK, MOD HD-HD, BRIT | |
| | TR | KAO: WH, SFT | |
| | TR | SLTST: DK BRN GRY, MOD HD, CARB | |
| 2885 | 100 | SST: PRED V FN-FN, SIL CMT, OCC CALC A/A | |
| | TR | COAL, KAO A/A | |
| 2888 | 85 | SST: A/A, OCC CARB | |
| | 15 | COAL: A/A | |
| | TR | KAO, MICA | |
| | TR | SH: DK GRY, FRM, SUBFISS, NON CALC | |
| 2891 | 90 | SST: A/A, V FN-FN, W CMTD, BECOMMING INCR CALC | |
| | 10 | COAL: A/A | |
| | TR | A/A | |
| 2894 | 100 | SST: INCR AMOUNT LS QTZ, CLR- CLOUDY, FN-MED, SUBANG, W/SST A/A | |
| | TR | COAL, SLTST, MICA, KAO A/A | |
| | TR | LST: WH, SFT-FRM, ANG | |
| 2897 | 100 | SST: PREDOM LS QTZ A/A W/SST A/A | |
| | TR | KAO | |
| | TR | MICA, COAL, SH, LST A/A | |
| 2900 | A/A | | FEW SPKS YEL FLUOR ON SST |
| 2903 | 100 | SST: A/A, SL CALC IN PARTS | NO CUT OR CRU |
| | TR | SH: DK GRY-BLK, HD, BLKY-SUBFISS | |
| | TR | KAO, LST A/A | |
| 2906 | A/A | | |
| 2909 | A/A | | NO SHOWS |
| 2912 | 100 | SST: A/A | |
| | TR | SLTST: WH GRY-BRN GRY, FRI-MOD HD, SL-MOD CALC | |
| | TR | SH: KAO, LST, MICA A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 25.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2915 | 60 | SST: CLR-WH, V FN, SUBANG, MOD HD-FRM, W SRTD, SIL CMTD, OCC SL CALC, KAO, W/ LS QTZ, CLR, MED-CRS, SUBANG-SUBRND, SL CARB | NO SHOWS |
| | 40 | SLTST: PA GRY-MED GRY, FRI-FRM, NON CALC, BLKY, GRDNG TO V FN SST, MICA | |
| | TR | SH: DK GRY, FRM, FISS, NON CALC, KAO, LST: WH, SFT, MUSCOVITE, BIOTITE, PYR | |
| | TR | COAL | |
| 2918 | 90 | SST: PRED LS QTZ, CLR, MED-CRS, SUBANG, MOD W SRTD W/SST V FN A/A | |
| | TR | SLTST: A/A | |
| | TR | CLYST: ORNG BRN, SFT-FRM, V CALC | |
| | TR | PYR,COAL | |
| 2921 | 80 | SST: A/A | |
| | 20 | SLTST: A/A | |
| | TR | SH: A/A | |
| | TR | LST: WH RD BRN, SFT, ARG | |
| | TR | KAO, COAL | |
| 2924 | 100 | SST: A/A PRED LS QTZ | |
| | TR | SLTST, SH, COAL, MICA | |
| 2927 | 40 | SLTST: MED GRY-MED BRN GRY, FRM, NON CALC-MOD CALC, MICROMIC, CARB | |
| | 30 | SH: MED GRY-DK GRY, BLK, SUBFISS-FISS, FRM-MOD HD, NON CALC | |
| | 20 | SD/SST: A/A | |
| | 10 | COAL: HD, BLK, SHINY, ANG, BRIT | |
| | TR | PYR | |
| 2930 | 40 | SLTST: A/A, OCC GN GRY | |
| | 30 | SH: A/A | NO SHOWS |
| | 30 | SST: BECOMING PA GRY, V FN-FN, FRM, FRI, W/ WH GRY AND LS QTZ, CRS-V CRS A/A | |
| | TR | LST: CRM-BUFF, SFT-MOD HD, BLKY-PLATY, ANG | |
| | TR | PYR, COAL | |
| 2933 | 60 | SH: MED GRY-DK GRY A/A | |
| | 30 | SLTST: PA-MED GRY A/A | SPOTTY ORNG FLUOR IN PRTS |
| | 5 | SD/SST | |
| | 5 | COAL | |
| | TR | PYR | |
| 2936 | A/A | | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 26.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2939 | 40 | SH: MED GRY-DK GRY, BLK, SUBFISS-FISS, FRM-MOD HD, NON CALC | NO SHOWS |
| | 35 | COAL: HD, BLK, SHINY, ANG, BRIT | |
| | 20 | SLTST: MED GRY-MED BRN GRY, MOD FRM-FRM, NON CALC-MOD CALC, MICROMIC, CARB | |
| | 5 | SD/SST: PREDOM LS QTZ CLR, MED-CRS, SUBANG, MOD-W SRTD W/ SST, V FN | |
| 2942 | 40 | SLTST: MED GRY-BRN GRY-BRN, SFT-FRM, MICRO, SL CALC | |
| | 25 | COAL | |
| | 20 | SH: A/A | |
| | 15 | SD/SST: LS QTZ, MED-CRS AND AGGREGATES | |
| 2945 | 50 | SLTST: A/A W/DISS PYR | |
| | 30 | COAL: A/A | |
| | 10 | SH: A/A | |
| | 10 | SD/SST: A/A | |
| | TR | LST: WH, SFT, MICA | |
| 2948 | 60 | SLTST: MED BRN GRY-DK GRY, BLK, FRM, BLKY-SUBFISS, MICA-MICROMIC, NON CALC, CARB | |
| | 40 | SH: DK GRY-MED GRY, FRM, SUBFISS, NON CALC | NO SHOWS |
| | TR | SD/SST: A/A, COAL A/A, PYR, MICA | |
| 2951 | 50 | COAL: BLK, HD-MOD HD, SHINY | |
| | 40 | SLTST: A/A | |
| | 10 | SD: PRED LS QTZ, CLR, MED-CRS, ANG-SUBANG, PR SRTD | |
| | TR | SH, PYR | |
| 2954 | 60 | SLTST: A/A | |
| | 25 | COAL: A/A | |
| | 10 | SH: A/A | |
| | 5 | SD/SST: A/A | |
| | TR | PYR, MICA | |
| 2957 | 50 | SLTST/SH: A/A | V WEAK SPOTTY YEL FLUOR. NO CUT OR CRUSH |
| | 40 | SD/SST: PRED LS QTZ GRNS, FN-MED, OCC CRS, SUBANG-SUBRND, MOD W SRTD | |
| | 10 | COAL: A/A | |
| | TR | PYR, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 26.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2960 | 60 | SD/SST: PRED LS QTZ GRNS, FN-MED, OCC CRS, SUBANG-SUBRND, MOD WELL SRTD | NO SHOWS |
| | 35 | SLTST/SH: MED BRN GRY-DK GRY, BLK, FRM, BLKY-SUBFISS, MICA-MICROMIC, NON CALC, CARB | |
| | 5 | COAL: BLK, HD-MOD HD, SHINY | |
| | TR | PYR, MICA | |
| 2963 | 100 | SD/SST: A/A | |
| | TR | SLTST/SH: A/A | |
| | TR | COAL: A/A | |
| | TR | PYR, MICA | |
| 2966 | 100 | SD/SST: PRED LS QTZ GRAINS, FN-MED, OCC CRS, SUBANG-SUBRND, W SRTD, OCC SL CALC CMTD | |
| | TR | SH: MED-DK GRY, FRM-MOD HD, SUBFISS, NON CALC, MICA | |
| | TR | COAL: BLK, SHINY, HD | |
| | TR | PYR | |
| 2969 | 95 | SD/SST: A/A | |
| | 5 | COAL: A/A | |
| | TR | SH: A/A | |
| | TR | PYR, MICA | |
| 2972 | 50 | SLTST: MED BRN GRY-DK GRY, OCC LT GRY, FRM, BLKY, MIC-MICROMIC, NON CALC, PRTLY CARB | |
| | 25 | SH: DK GRY-MED GRY, BRN DK GRY, ELSE A/A | |
| | 20 | SD/SST: A/A | |
| | 5 | COAL: A/A | |
| | TR | PYR, MICA | |
| 2975 | 50 | SLTST: A/A | |
| | 25 | SH: A/A | |
| | 20 | SH/SST: A/A | |
| | 5 | COAL: A/A | |
| | TR | PYR, MICA | |
| 2978 | 50 | SLTST: A/A | |
| | 30 | SD/SST: A/A | |
| | 10 | SH: A/A | |
| | 10 | COAL: A/A | |
| | TR | PYR, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 26.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 2981 | 90 | SD/SST: PRED,LS QTZ GRAINS, FN-MED, OCC CRS, SUBANG-SUBRND, W SRTD | NO SHOWS |
| | 5 | SLTST: MED BRN GRY-DK GRY, OCC LT GRY, FRM, BLKY, MIC-MICROMIC, NON CALC, PRTLY CARB | |
| | 5 | SH: MED-DK GRY, FRM-MOD HD, SUBFISS, NON CALC, MICA | |
| | TR | COAL: BLK, SHINY, HD | |
| | TR | PYR, MICA | |
| 2984 | 75 | SD/SST: A/A | |
| | 15 | COAL: A/A | |
| | 5 | SH: A/A | |
| | 5 | SLTST: A/A | |
| | TR | MICA | |
| 2987 | 40 | SH: A/A | |
| | 40 | SLTST: A/A | |
| | 20 | COAL: A/A | |
| | TR | SD/SST: A/A | |
| 2990 | 70 | COAL: BLK, SHINY, HD | |
| | 20 | SLTST: MED DK BRN GRY, FRM, BLKY, MICA, NON CALC, SL CARB, GRDNG TO SH PRTLY | |
| | 10 | SD/SST: CLR QTZ, FN-MED, OCC CRS, SUBANG-SUBRND, MOD-W SRTD, MICA | |
| | TR | SH: MED-DK BRN GRY, FRM-MOD HD, SUBFISS, MICA, NON CALC | |
| 2993 | 50 | COAL: A/A | |
| | 35 | SD/SST: OCC V FN, ELSE A/A | |
| | 10 | SLTST: A/A | |
| | 5 | SH: A/A | |
| 2996 | 60 | SD/SST: A/A | |
| | 20 | COAL: A/A | |
| | 20 | SLTST: A/A | |
| | TR | SH: A/A | |
| 2999 | 50 | SLTST: A/A | |
| | 30 | SLTST: A/A | |
| | 15 | COAL: A/A | |
| | 5 | SH: A/A | |
| 3002 | 80 | SD/SST: PRED, LS SD GRAINS, ELSE A/A | |
| | 10 | SLTST: A/A | |
| | 10 | COAL: A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 26.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3005 | 60 | SD/SST: PRTLY W/KAO MATRIX, CLR QTZ, FN-MED, OCC CRS, SUBANG-SUBRND, MOD-W SRTD, MICA | NO SHOWS |
| | 30 | SLTST: MED DK BRN GRY, FRM, BLKY, MICA, NON CALC SL CARB, GRDNG TO SH PRTLY | |
| | 10 | SH: MED-DK BRN GRY, FRM-MOD HD, SUBFISS, MICA, NON CALC | |
| | TR | : COAL: BLK, SHINY, HD, KAO | |
| 3008 | 100 | SD/SST: CLR QTZ, MOSTLY MED-CRS, OCC FN AND V CRS, ANG-SUBRND, MOSTLY LS, MOD-W SRTD, OCC W/KAO MATRIX | |
| | TR | SLTST: A/A | |
| | TR | COAL: A/A, SH A/A, KAO | |
| 3011 | 90 | SD/SST: A/A | |
| | 10 | SH: A/A | |
| | TR | SLTST: A/A, COAL A/A, KAO | |
| 3014 | 85 | SD/SST: A/A | |
| | 5 | SH: A/A | |
| | 5 | COAL: A/A | |
| | 5 | SLTST: A/A | |
| | TR | KAO | |
| 3017 | 100 | SST: CLR LS QTZ, FN-MED PRED, CRS-V CRS, SUBANG SUBRND, MOD W SRTD | NO SHOWS |
| | TR | COAL: A/A | |
| | TR | SH: A/A | |
| | TR | MICA FLAKES, | |
| 3020 | 100 | SST: A/A | |
| | TR | A/A | |
| | TR | LST: WH, SFT | |
| | TR | KAO | |
| 3023 | 90 | SD/SST: A/A | |
| | 10 | SH: MED GRY-DK GRY A/A CVGS | |
| | TR | COAL: A/A | |
| 3029 | 100 | SD/SST: CLR LA QTZ, MED-CRS, OCC V CRS, SUBANG, W-MOD W SRTD, OCC W CMTD, SILIC CMTD | |
| | TR | KAO | |
| | TR | SH: A/A | |
| | TR | PYR, MICA, COAL | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 27.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3032 | 100 | SD/SST: CLR LS QTZ, FN-MED GRDNG TO CRS SUBANG, MOD-W SRTD, OCC W CMTD, SILIC CMTD, GRDNG TO CRS | NO SHOWS |
| | TR | MICA, PYR, KAO | |
| 3035 | 100 | SD/SST: A/A | |
| | TR | COAL, MICA, PYR | |
| 3038 | 80 | SD/SST: A/A, OFTEN CRS-V CRS, CLOUDY WH GRNS | |
| | 10 | COAL: A/A | |
| | 10 | SLTST: A/A | |
| | TR | KAO, MICA | |
| 3041 | 45 | SD/SST: MED-CRS, CLR LS QTZ, SUBANG, W SRTD, OCC CMTD A/A, OCC CARB | LIGN ADD TO MUD |
| | 30 | SLTST: MED GRY-MED BRN GRY, FRM, NON CALC | NO SHOWS |
| | 25 | COAL | |
| | TR | PYR, MICA | |
| 3044 | 50 | COAL: BLK, MOD HD-HD | |
| | 30 | SST/SD: A/A | |
| | 10 | SLTST: A/A | |
| | TR | MICA | |
| 3047 | 100 | SD/SST: CLR, LS QTZ, FN-MED, OCC CRS, SUBANG-SUBRND, KAO A/A | LIGN CONTAM |
| | TR | SLTST: A/A | |
| | TR | MICA, COAL | |
| 3050 | 100 | SD/SST: A/A | NO SHOWS |
| | TR | MICA, KAO | |
| 3053 | 100 | SD/SST: A/A | |
| | TR | MICA, KAO, COAL | |
| 3056 | 100 | SD/SST: A/A | |
| | TR | MICA, KAO, COAL | |
| 3059 | 100 | SD/SST: A/A | |
| | TR | MICA, KAO, COAL | |
| 3062 | 100 | SD/SST: A/A | |
| | TR | MICA, KAO, COAL | |
| 3065 | 100 | SD/SST: A/A | |
| | TR | MICA, KAO, COAL | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: CLINT/HELLE DATE: 27.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3068 | 90 | SD/SST: FN-MED, OCC CRS, SUBARNG-SUBRND, W SRTD, OCC CMTD, OCC CARB | NO SHOWS |
| | 10 | COAL: BLK, BRIT, SHINY, HD-MOD HD | |
| | TR | MICA, KAO | |
| 3071 | 90 | SD/SST: A/A | |
| | 10 | COAL: A/A | |
| | TR | MICA, KAO | |
| 3074 | 70 | SD/SST: MED-CRS, OCC V CRS, CLR LSE QTZ, SUBANG, W SRTD, OCC SL CMTD | |
| | 30 | COAL: BLK, BRIT, SHINY, HD | ADDING LIGN TO MUD |
| | TR | KAO, MICA | |
| 3077 | 80 | SD/SST: A/A | NO SHOWS |
| | 20 | COAL: A/A | |
| | TR | KAO, MICA | |
| 3080 | 90 | SD/SST: A/A | |
| | 10 | COAL: A/A | |
| | TR | KAO, MICA | |
| 3083 | 100 | SD/SST: A/A | |
| | TR | COAL, KAO, MICA | |
| 3086 | 100 | SD/SST: A/A | |
| | TR | COAL: A/A | |
| | TR | KAO, MICA | |
| 3089 | 100 | SST | |
| | TR | COAL, KAO, MICA | |
| 3092 | 90 | SST: A/A | |
| | 10 | COAL | |
| | TR | KAO | |
| 3095 | 90 | SST: A/A | |
| | 10 | COAL | |
| | TR | KAO, MICA | |
| 3098 | 100 | SST: MED-CRS, CLR QTZ, W SRTD | |
| | TR | COAL, KAO | |
| 3101 | 90 | SST: CRS TO V-CRS, CLR TO MLK, QTZ | |
| | 10 | COAL: A/A | |
| | TR | KAO | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 28.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3104 | 100 | SST: CLR QTZ, MED-CRS, W SRTD | NO SHOWS |
| | TR | COAL, KAO, MICA | |
| 3107 | 90 | SST: A/A | |
| | 10 | COAL | |
| | TR | KAO | |
| 3110 | 100 | SST: A/A | |
| | TR | COAL, KAO | |
| 3113 | 90 | SST: CLR QTZ, MED-CRS, FR SRTD, ANG, LS-FRI, GOOD VIS POR | NO SHOWS - SAMPLE CIRC |
| | 10 | CLYST: DK GRY-BLK, MICROMIC, MED HD, NON CALC | OUT AFTER BIT |
| | TR | COAL: BLK, HD, BRIT, SHINY | TRIP. ADDING |
| | TR | KAO, MICA | LIGN TO MUD |
| 3116 | 70 | SST: CLR-TRANSLUC QTZ, MED-CRS, FAIR SRTD, ANG, LS-FRI, OCC V HD, SILIC CMTD, GOOD VIS POR | NO SHOWS ADDING LIGN |
| | 30 | CLYST: DK GRY, MED GRY, FRM, MICROMIC, SL SLTY, CARB-V CARB, OCC SL PYR, NON CALC | TO MUD |
| | TR | COAL: BLK, HD, BRIT, SHINY | |
| | TR | PYR, MICA, KAO | |
| 3119 | 70 | SST: CLR-TRANSLUC QTZ, MED-CRS, OCC FN, PR-FR SRTD, ANG, APPEARS LS, OCC HD, CALC AND SILIC CMT, ANG MIGHT BE DUE TO BREAKING SILIC CMTD, GOOD VIS POR | NO SHOWS |
| | 30 | CLYST: MED GRY-DK GRY, BRN GRY, FRM-MOD HD, MICROMIC, CARB-V CARB, OCC SL PYR, NON CALC | |
| | TR | COAL: A/A | |
| | TR | MICA | |
| 3122 | 90 | SST: CLR-TRANSLUC QTZ, MED-CRS, FAIR SRTD, ANG-SUBANG, APPEARS LS, GOOD VIS POR, ANG MIGHT IN PART BE DUE TO BREAKING UP SILIC CMTD | |
| | 10 | CLYST: A/A, IN PART PYR | |
| | TR | COAL, MICA, KAO | |
| 3125 | 80 | SST: CLR-TRANSLUC QTZ, CRS-MED, PR-MOD SRTD, ANG-SUBANG, APPEARS LS, OCC HD, SILIC CMTD | ANG MIGHT IN PART BE DUE T BREAKING UP SILIC CMTD |
| | 20 | CLYST: A/A | |
| | TR | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 28.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3128 | 80 | SST: CLR TRANSLUC QTZ, CRS-MED, OCC CRS, OCC FN, PR SRTD, ANG-SUBANG, APPEARS LS, GD VIS POR | NO SHOWS |
| | 20 | COAL: BLK, HD, BRIT, SHINY | |
| | TR | CLYST: MED GRY-DK GRY, BRN GRY, FRM-MOD HD, MICROMIC, CARB-V CARB, OCC SL PYR, NON CALC | |
| | TR | MICA, KAO | |
| 3131 | 90 | SST: A/A | |
| | 10 | COAL: A/A | |
| | TR | CLYST: A/A | |
| | TR | MICA, KAO | |
| 3134 | 80 | SST: CLR-TANSLUC QTZ, CRS-MED, PR SRTD, ANG-SUBANG, MOD VIS POR | |
| | 20 | COAL: HD, BRIT | |
| | TR | CLYST: A/A | |
| | TR | MICA, KAO | |
| 3137 | 80 | SST: CLR-TRANSL QTZ, MED-V CRS, ANG, CMTD | NO SHOWS ANG MIGHT IN PART BE DUE TO BREAKING U SILIC CMT. |
| | 20 | COAL: HD, BRIT | |
| | TR | CLYST: DK GRY-BRN GRY, MICROMIC, PYR | |
| | TR | KAO, MICA | |
| 3140 | 80 | SST: A/A | ADDING LIGN TO MUD. |
| | 20 | COAL: A/A | |
| | TR | CLYST: A/A | NO SHOWS |
| | TR | KAO, MICA | |
| 3143 | 80 | SST: A/A | |
| | 20 | COAL: A/A | |
| | TR | CLYST | |
| | TR | KAO, MICA | |
| 3146 | 80 | COAL: BLK, HD, BRIT, SHINY | |
| | 20 | SST: CLR-TRANSL QTZ, MED-V CRS, PR SRTD, ANG, APPEARS LS, OCC SILIC CMTD, GD VIS POR | |
| | TR | MICA | |
| 3149 | 60 | SST: CLR-TRANSL QTZ, MED-CRS, OCC FN, PR SRTD, ANG, APPEARS LS, OCC HD, SILIC CMTD, TRACE CALC CMT, APPEAR GD VIS POR | |
| | 40 | COAL: A/A | |
| | TR | MICA | |
| | TR | KAO | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 28.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3152 | 40 | SST: CLR-TRANSL QTZ, MED-CRS, OCC FN, PR SRTD, ANG, APPEARS LS, OCC HD, SILIC CMTD, TRACE CALC CMT, APPEAR GD VIS POR | NO SHOWS |
| | 30 | COAL: BLK, HD, BRIT, SHINY | |
| | 30 | SH: DK GRY, MOD HD, V CARB, OCC SLTY, PRED NON CALC, OCC CALC | |
| | TR | MICA, KAO | |
| 3155 | 40 | SST: A/A | |
| | 40 | COAL: A/A | |
| | 20 | SH: A/A | |
| | TR | KAO, MICA, PYR | |
| 3158 | 60 | SST: CLR QTZ, MED, ANG-SUBANG, MOD-W/ SRTD, OCC NON CALC CMTD | |
| | 40 | COAL: BRIT, LIGN | |
| | TR | KAO, PYR, MICA | |
| 3161 | 70 | SST: A/A | |
| | 30 | COAL: A/A | |
| | TR | SH, MICA, KAO | |
| 3164 | 80 | SST: CLR, TRANSL, QTZ MED-CRS, ANG-SUBANG, W/SRTD | NO SHOWS ADDING LIGN TO MUD |
| | 20 | COAL: HD, BRIT, OCC LIGN | |
| | TR | KAO, MICA | |
| 3167 | 80 | SST: A/A | |
| | 20 | COAL: A/A | |
| | TR | KAO, MICA | |
| 3170 | 80 | SST: CLR TRANSL QTZ, MED-CRS, OCC V CRS, ANG-SUBANG, PR SRTD, KAO CMTD | INCREASE OF KAOLINIZED FELDSPARS FRAGMENTS |
| | 20 | COAL: HD, BRIT | |
| | TR | KAO, CLYST, MICA | |
| 3173 | 80 | SST: A/A | |
| | 20 | COAL: A/A | |
| | TR | KAO, MICA, CLYST | NO SHOWS |
| 3176 | 70 | SST: CLR-MLKY QTZ, MED-CRS, OCC V CRS, PR SRTD, ANG-SUBANG CMTD | |
| | 30 | COAL: A/A | |
| | TR | KAO, SH, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 29.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3179 | 80 | SST: CLR-MLKY QTZ, MED-CRS, OCC V CRS, PR SRTD, ANG-SUBANG CMTD | NO SHOWS |
| | 20 | COAL: HD, BRIT | |
| | TR | KAO, SH MICA, PYR | |
| 3182 | 80 | SST: CLR-TRANSL, MED-CRS, ANG-SUBANG, HD, CALC AND SILIC CMTD, LS IN PART | NO SHOWS |
| | 20 | SH: DK GRY, MOD HD-HD, MICROMIC, SLTY IN PART, NON CALC | |
| | TR | COAL: BLK, HD, BRIT, SHINY | |
| | TR | MICA, KAO, PYR | |
| 3185 | 60 | SH: DK GRY-BLK, MOD HD-HD, MICROMIC, SLTY-V SLTY, OCC MICROPYR, CARB-V CARB, NON CALC | NO SHOWS ADDING LIGN TO MUD |
| | 30 | SST: CLR-TRANSL QTZ, LT GRY-LT BRN GRY, FN-CRS, PR SRTD, ANG-SUBANG, APPEARS LS-MOD HD, SILIC AND CALC CMTD | |
| | 10 | COAL: BLK, HD, BRIT, SHINY | |
| | TR | MICA, PYR, KAO | |
| 3188 | 50 | SST: A/A | NO SHOWS |
| | 40 | SH: DK GRY-BLK, DK BRN, MOD HD-HD, SL SLTY-V SLTY, MICROMIC, OCC MICROPYR, CARB-V CARB, NON CALC | |
| | 10 | COAL: BLK, HD, BRIT, SHINY | |
| | TR | LS: OFF WH, TAN, MOD HD, MICRITIC, ARG | |
| | TR | MICA, KAO | |
| 3191 | 50 | SH: DK GRY-BLK, MOD HD-HD, MICROMIC, SL SLTY-V SLTY, OCC MICROPYR, CARB-V CARB, NON CALC-SL CALC | NO SHOWS LIGN ADDED TO MUD |
| | 30 | SST: CLR-TRANSL QTZ, LT GRY-LT BRN, FN-CRS, PR SRTD, ANG-SUBANG, APPEARS LS-HD, SILIC CMTD, TRACE CALC CMT | |
| | TR | MICA, KAO | |
| | TR | LS: OFF WH, TAN, MOD HD, MICRITIC, ARG | |
| 3194 | 70 | SST: PRED MED-CRS, OCC FN, ELSE A/A | NO SHOWS, TRACE OF COAL LOGGED MIGHT COME FROM LIG ADDED TO MUD |
| | 30 | SH: A/A | |
| | TR | COAL, MICA, KAO | |
| 3197 | 90 | SST: CLR-TRANSLQTZ, MED-CRS, OCC FN, MOD SRTD, ANG-SUBANG, APPEARS LS, OCC HD, SILIC CMTD, PR-GD VIS POR | NO SHOWS |
| | 10 | SH: A/A | |
| | TR | COAL, MICA, KAO | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 29.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3200 | 80 | SST: CLR-TRANSLQTZ, MED-CRS, OCC FN, MOD SRTD, ANG-SUBANG, APPEARS LS, OCC HD, SILIC CMTD, PR-GD VIS POR | NO SHOWS |
| | 20 | SH: DK GRY-BLK, MOD HD-HD, MICROMIC, SL SLTY-V SLTY, OCC MICROPYR, CARB-V CARB, NON CALC-SL CALC | |
| | TR | COAL, MICA, KAO | |
| 3203 | 80 | SST: CLR-TRANSL QTZ, LT GRY, FN-MED, OCC CRS, PR SRTD, SUBANG, HD, LS IN PRT, SILIC AND CALC CMTD | NO SHOWS |
| | 20 | SH: DK GRY-BLK, BRN, MOD HD-HD, MICROMIC, IN PRT PYR, SLTY, CARB-V CARB, NON CALC | |
| | TR | COAL, PYR, MICA, KAO | |
| 3206 | 60 | SST: A/A | |
| | 30 | SH: A/A | |
| | 10 | COAL | |
| | TR | PYR, MICA, KAO | |
| 3209 | 80 | SST: A/A | |
| | 20 | SH: A/A | |
| | TR | LS: CRM-TAN, MOD HD, MICRITIC | |
| | TR | COAL, PYR, MICA, KAO | |
| 3212 | 70 | SST: CLR-TRANSL QTZ, LT GRY, LT BRN, OCC MLKY WH, FN-MED, OCC CRS, PR-FR SRTD, SUBANG, LS-HD, SILIC CMTD, OCC CALC CMTD, OCC PYR, MICA IN PART | |
| | 30 | SH: SLTY-V SLTY, ELSE A/A | |
| | TR | COAL, PYR, MICA, KAO | |
| 3215 | 80 | SST: CLR-TRANSL QTZ, LT GRY, MED-CRS, OCC FN, PR SRTD, ANG-SUBANG, LS-HD, SILIC CMTD, OCC CALC CMT, OCC MICA, OCC SL PYR | NO SHOWS LIGN ADDED TO MUD TRACE OF COAL LOGGED MIGHT ALL BE FROM LIGN ADDED TO MUD. PART OF SST IS PROBABLY WASH OUT FROM HIGH UP |
| | 20 | SH: DK GRY, MOD HD, MICROMIC, OCC MICROPYR, SL SLTY-V SLTY, CARB-V CARB, SL CALC | |
| | TR | LS: MLKY WH-CRM, MOD HD-HD, MICRITIC, OCC XLN | |
| | TR | COAL: BLK, HD, BRIT, SHINY | |
| | TR | MICA, PYR, KAO | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 29.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3218 | 80 | SST: CLR-TRANSL QTZ, LT GRY, OCC BRN, FN-CRS, PR SRTD, ANG-SUBANG, LS-HD, SILIC CMTD, OCC CALC CMTD, OCC MICA AND ARG | NO SHOWS |
| | 20 | SH: BRN GRY-DK GRY-BLK, A/A | |
| | TR | LS: CRM-TAN, MOD HD, MICRITIC, OCC SL ARG | |
| | TR | COAL, MICA, PYR, KAO | |
| 3221 | 70 | SST: A/A | |
| | 20 | SLTST: BRN GRY, FRM-MOD HD, ARG, MICROMIC, CARB, NON CALC | |
| | 10 | SH: A/A | |
| | TR | LS: CRM-TAN, MOD HD, MICRITIC, OCC SL ARG | |
| | TR | COAL, MICA, PYR, KAO | |
| 3224 | 70 | SST: CLR-TRANSL QTZ, LT GRY, FN-MED, OCC CRS-V CRS, PR-FR SRTD, SUBANG, LS-HD, SILIC CMTD, OCC CALC CMTD, PR-GD VIS POR | NO SHOWS |
| | 20 | SLTST: BRN GRY, LT GRY, FRM-MOD HD, ARG, MICROMIC, CARB, OCC V CARB, NON CALC-SL CALC | |
| | 10 | SH: DK GRY, MOD HD, MICROMIC, OCC MICROPYR, SL SLTY-V SLTY, CARB-V CARB, SL CALC | |
| | TR | LS: CRM-TAN, MOD HD, MICRITIC, OCC SL ARG | |
| | TR | KAO, ABUND | |
| | TR | COAL, PYR, MICA | |
| 3227 | 70 | SST: A/A | |
| | 20 | SLTST: A/A | |
| | 10 | SH: A/A | |
| | TR | A/A | |
| 3230 | 70 | SST: CLR-TRANSL QTZ, LT GRY, BRN, FN-MED, OCC V FN, OCC CRS, PR-FR SRTD, ANG-SUBANG, APPEARS LS- HD, CALC AND SILIC CMTD, OCC PYR, OCC MICA, PR-GD VIS POR | |
| | 30 | SH: BRN, MED GRY-DK GRY, MOD HD, MICROMIC, SL SLTY-SLTY, CARB, MICROPYR, NON-V SL CALC | |
| | TR | SLTST: A/A | |
| | TR | LS: CRM-TAN, FRM-MOD HD, MICRITIC | |
| | TR | KAO, COAL, MICA, PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 29.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3233 | 70 | SST: CLR-TRANSL QTZ, LT GRY-MED GRY, OCC BRN, FN-MED, OCC V FN, OCC CRS, PR-FR SRTD, SUBANG, APPEARS LS-HD, CALC AND SILIC CMTD, IN PRT MICA, OCC SL PYR, PR-GD VIS POR | NO SHOWS TRACE OF COAL PROBABLY FROM LIGN ADDED TO MUD PART OF SST IS PROBABLY WASHED OUT FROM HIGHER U |
| | 30 | SH: BRN, MED GRY-DK GRY, OCC GRN GRY, OCC RD BRN, FRM-MOD HD, MICROMIC, SL SLTY-SLTY, CARB, OCC COAL STREAKS, OCC MICROPYR, NON-SL CALC | |
| | TR | COAL: BLK, HD, BRIT, SHINY | |
| | TR | LS: CRM-TAN, MOD HD, MICRITIC | |
| | TR | KAO, PYR, MICA | |
| 3236 | 70 | SST: A/A, IN PART WH NON CALC CMT, PYR IN PRT | NO SHOWS |
| | 30 | SH: LT GRY-MED GRY, BRN, MOD HD-HD, MICROMIC, SL SLTY-SLTY, OCC V SLTY, MICROPYR IN PRT, CARB IN PRT, PRED NON CALC, OCC CALC | |
| | TR | COAL, LS, KAO, PYR, MICA | |
| 3239 | 50 | SST: CLR-TRANSL QTZ, OFF WH-LT GRY, FN-MED, PR SRTD, SUBANG, APPEARS LS-V HD, SILIC AND CALC CMTD, OCC WH NON CALC CMTD, OCC PYR, OCC MICA AND ARG, PR-GD VIS POR | NO SHOWS |
| | 50 | SH: RD BRN-BRICK RD, DK GRY, MOD HD-HD, PLATY IN PRT, MICROMIC, SLTY, NON CALC-SL CALC, OCC CARB, OCC CARB STREAKS | |
| | TR | LS, KAO, PYR, MICA | |
| 3242 | 70 | SH: MED GRY-DK GRY, RD BRN-BRICK RD, A/A | SAMPLE CIRC OUT AFTER BIT TRIP, CAVINGS |
| | 30 | SST: A/A | |
| | TR | LS, KAO, PYR, MICA | |
| 3245 | 80 | SH: MED GRY-DK GRY, RD BRN-BRICK RED, LT GRY, MOD HD-HD, MICROMIC, SL SLTY-SLTY, OCC MICROPYR, OCC CARB SPECKS, NON-SL CALC | |
| | 20 | SST: CLR-TRANSL QTZ, FN-CRS, PR SRTD, SUBANG, APPEARS LS-HD, SILIC CMTD, OCC MICA AND ARG | |
| | TR | LS: OFF WH-CRM-TAN, MOD HD, MICRITIC, OCC SL ARG | |
| | TR | PYR | |
| 3248 | 90 | SH: MED GRY-DK GRY, RD BRN-BRICK RD, LT GRY-OFF WH, MOD HD-HD, MICROMIC, SLTY, MICROPYR IN PRT, OCC SL CARB, NON-SL CALC | |
| | 10 | SST: CLR-TRANSL QTZ, OFF WH-LT GRY, FN-MED, FR SRTD, HD, SILIC CMTD, SL CALC CMTD, OCC MICA AND ARG | |
| | TR | LS: A/A | |
| | TR | PYR, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
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K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 30.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3251 | 100 | SH: RD BRN-BRICK RD, LT GRY-DK GRY, MOD HD, MICROMIC, SL SLTY-SLTY, OCC MICROPYR, NON CALC | NO SHOWS ADDING LIGN T MUD. PART OF SST LOGGED IS PROBABLY WASH OUT FROM HIGH UP |
| | TR | SST: CLR-TRANSL QTZ, GRY, FN-MED, FR SRTD, HD, SILIC CMTD, TRACE CALC CMT, MICA, OCC ARG | |
| | TR | CALC: OFF WH-LT GRY, HD, XLN | |
| | TR | PYR | |
| 3254 | 70 | SST: CLR-TANSL QTZ, MED, OCC CRS, OCC FN, FAIR SRTD, SUBANG, LS, TRACE WH NON CALC CMT, TRACE SILIC AND CALC CMT, GD VIS POR | NO SHOWS |
| | 30 | SH: OCC CALC, ELSE A/A | |
| | TR | LS: OFF WH, CRM-TAN, BRN, FRM-MOD HD, MICRITIC, ARG IN PRT | |
| | TR | PYR, MICA | |
| 3257 | 60 | SH: RD BRN-BRICK RD, LT YEL GRY, MED GRY, PURPLE, FRM-MOD HD, MICROMIC, SL SLTY-SLTY, OCC MICROPYR, NON-SL CALC, OCC CALC | NO SHOWS |
| | 40 | SST: OCC GRN QTZ, OCC PINK, ELSE A/A | |
| | TR | LS: A/A | |
| | TR | LT GRY DOL NOD, HD, MED-CRS | |
| | TR | PYR | |
| 3260 | 80 | SH: OCC LT GRY, ELSE A/A | |
| | 20 | SST: A/A | |
| | TR | LS: A/A | |
| | TR | NOD: A/A | |
| | TR | PYR | |
| 3263 | 60 | SH: RD BRN-BRICK RD, LT PURPLE GRY, MED GRY, FRM-MOD HD, MICROMIC, SL SLTY-SLTY, OCC MICROPYR, NON-SL CALC | NO SHOWS ADDING LIGN TO MUD |
| | 40 | SST: CLR-TRANSL QTZ, OCC GRN, MED, OCC CRS, FAIR SRTD, SUBANG, LS, TRACE WH NON CALC CMT, TRACE SILIC CMT, GD VIS POR | |
| | TR | LS: A/A | |
| | TR | NOD: A/A | |
| 3266 | 100 | SST: CLR-TRANSL QTZ, OCC GRN, MED, FAIR SRTD, SUBANG, LS, TRACE CALC ANC SILIC CMT, TRACE WH NON CALC CMT | |
| | TR | SH: BRICK RD-RD BRN, FRM-MOD HD, MICROMIC, SL SLTY-SLTY, NON-SL CALC | |
| | TR | NOD: A/A | |
| | TR | LS: OFF WH, MOD HD, MICRITIC | |
| | TR | KAO, PYR | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 30.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3269 | 100 | SST: CLR-TRANSL QTZ, OCC GRN, MED, OCC CRS, W SRTD, SUBANG-SUBRND, LS, TR SILIC CMT, TR WH NON CALC CMT, GD VIS POR | NO SHOWS ADDING LIGN TO MUD |
| | TR | SH: RD BRN-BRICK RD, FRM-MOD HD, MICROMIC, SL SLTY-SLTY, NON CALC | |
| | TR | NOD: LT GRY, HD, DOL, MED-CRS | |
| 3272 | 100 | SST: A/A | |
| | TR | SH: A/A | |
| | TR | MICA | |
| 3275 | 100 | SST: CLR-TRANSL QTZ, OCC GRN, MED, OCC FN AND CRS, FAIR SRTD, SUBANG-SUBRND, LS, TR SILIC AND CALC CMTD, GD VIS POR | NO SHOWS |
| | TR | SH: RD BRN-BRICK RED, FRM-MOD HD, MICROMIC, SL SLTY-SLTY, NON CALC | |
| | TR | NOD: LT GRY, HD, DOL, MED-CRS | |
| | TR | MICA | |
| 3278 | 70 | SST: CLR-TRANSL QTZ, LT GRY, OCC GRN, MED, OCC FN, OCC CRS, FR SRTD, SUBANG, HD, CALC AND SILIC CMTD, TR WH NON CALC CMTD, SL MICA IN PRT | ANG DUE TO TO BREAKING UP CMT? |
| | 30 | SH: RD BRN-BRICK RD, LT GRY, LT RD, FRM-MOD HD, MICROMIC, SL SLTY-SLTY, NON CALC | |
| | TR | MICA | |
| | TR | DOL NOD: A/A - CAVINGS? | |
| 3281 | 80 | SST: APPEARS LS, OCC HD, ELSE A/A | NO SHOWS |
| | 20 | SH: A/A | |
| | TR | MICA | |
| 3284 | 100 | SST: CLR-TRANSL QTZ, OCC GRN, OCC WH, MED, OCC FN, OCC CRS, FR SRTD, SUBANG, LS, OCC HD, SILIC AND CALC CMTD, GD VIS POR | |
| | TR | SH: A/A | |
| | TR | PYR, MICA | |
| 3287 | 50 | SST: CLR-TRANSL QTZ, OCC GRN, OCC WH, MED, OCC FN, OCC CRS, FR SRTD, ANG-SUBANG, HD, SILIC AND CALC CMTD, TR WH NON CALC CMT, PR VIS POR | RED SH COLOURING MUD DISSOLVES |
| | 50 | SH: RD BRN-BRICK RD, PURPLE, LT GRY, SFT-MOD HD, SOLUBLE IN PRT, MICROMIC, SL SLTY-SLTY, OCC GRDNG TO SLTST, NON CALC | EASILY IN PAR CLYST IN PART |
| | TR | PYR, MICA | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 30.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3290 | 60 | SH: RD BRN-BRICK RD, PURPLE, LT GRY, SFT-MOD HD, SOLUBLE IN PRT, MICROMIC, SL SLTY-SLTY, OCC GRDNG TO SLTST, NON CALC | NO SHOWS |
| | 40 | SST: CLR-TRANSL QTZ, OCC GRN, OCC WH, MED, OCC FN, OCC CRS, FR SRTD, ANG-SUBANG, HD, SILIC AND CALC CMTD, TR WH NON CALC CMT, PR VIS POR | |
| | TR | PYR, MICA | |
| 3293 | 100 | SST: CLR-TRANSL QTZ, OCC GRN, FN-MED, OCC CRS, FAIR SRTD, ANG-SUBANG, PRED LS, OCC HD, SILIC AND CALC CMTD, OCC V MICA | NO SHOWS ADDING LIGN T MUD. ANG DUE |
| | TR | SH: RD BRN-BRICK RD, OFF WH-LT GRY-GRY, SFT-MOD HD, SL MICA-V MICA, SL SLTY-V SLTY, OCC MICROPYR, NON CALC | TO BREAKING U CMT? PART OF RED |
| | TR | PYR, MICA, KAO | SH DISSOLVES |
| | TR | LS: CRM-TAN, FRM-MOD HD, MICRITIC | IN MUD |
| 3296 | 60 | SST: CLR-TRANSL QTZ, OCC GRN, FN-MED, OCC CRS, MOD SRTD, ANG-SUBANG, LS-HD, SILIC AND CALC CMTD | NO SHOWS ADD LIGN TO MUD. ANG DUE |
| | 40 | SH: RD BRN-BRICK RD, DIRTY WH-LT GRY-GRY, SFT-MOD-HD, SL MICA-V MICA, SL SLTY-V SLTY, OCC MICROPYR | TO BREAKING U CMT? PART OF RED S |
| | TR | PYR, MICA, KAO | DISSOLVES IN |
| | TR | LS: CRM-FRM, MOD HD, MICRITIC | MUD |
| 3299 | 50 | SH: RD BRN-BRICK RD, GRY GRN-OFF WH, SL SLTY-V SLTY, SL MICA-MICA, OCC PYR | |
| | 50 | SST: A/A | |
| | TR | PYR, KAO, MICA | |
| | TR | LS: A/A | |
| 3302 | 60 | SST: CLR TRANSL QTZ, OCC GRN, FN-MED, OCC CRS, FAIR SRTD, ANG-SUBANG, PRED LS, OCC HD, SILIC AND OCC CALC CMTD | |
| | 40 | SH: A/A OCC CARB | |
| | TR | PYR, MICA, KAO | |
| 3305 | 60 | SST: A/A | ALMOST EQUAL AMOUNT OF GRY AND RED SH. INCREASE IN KAO |
| | 40 | SH: A/A | |
| | TR | PYR, MICA, KAO | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 30.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3308 | 50 | SH: RD BRN-BRICK RD, LT GRY-OFF WH SL SLTY-V SLTY, SL MICROMIC, OCC PYR | |
| | 50 | SST: CLR, TRANSL QTZ, OCC GRN, FN-MED, OCC CRS, FAIR SRTD, ANG-SUBANG, LS-HD, SILIC AND OCC CHLORITE CMTD | |
| | TR | PYR, MICA, KAO | |
| 3311 | 70 | SH: A/A | |
| | 30 | SST: A/A | |
| | TR | PYR, KAO, MICA | |
| 3314 | 100 | SH: RD BRN-BRICK RD, LT GRY-MED GRY, SFT-MOD HD, MICROMIC, OCC V MICA, SL SLTY-SLTY, OCC SL PYR NON CALC | NO SHOWS LIGN ADDED TO MUD |
| | TR | SST: CLR-TRANSL QTZ, FN-CRS, PR SRTD, SUBANG, LS | |
| | TR | LS: TAN-LT BRN, MOD HD, XLN IN PRT, MICRITIC IN PRT | |
| | TR | PYR, MICA | |
| 3317 | 70 | SH: RD BRN-BRICK RD, LT GRY-MED GRY, SFT-MOD HD, MICROMIC, OCC V MICA, SL SLTY-SLTY, OCC SL PYR NON CALC | NO SHOWS |
| | 30 | SST: CLR-TRANSL QTZ, MED, OCC FN, OCC CRS, FAIR SRTD, SUBANG, APPEARS LS, TR SILIC AND CALC CMT, GD VIS POR | |
| | TR | LS: TAN-LT BRN, MOD HD, XLN IN PRT, MICRITIC IN PRT | |
| | TR | PYR, MICA | |
| 3320 | 60 | SH: A/A | |
| | 40 | SST: A/A | |
| | TR | LS: A/A | |
| | TR | PYR, MICA | |
| 3323 | 60 | SH: A/A | |
| | 40 | SST: CLR-TRANSL QTZ, MED OCC FN, OCC CRS, FAIR SRTD, SUBANG, LS, OCC HD, SILIC AND CALC CMT, OCC ARG AND MICA, PR-GD VIS POR | |
| | TR | LS: WH-CRM-TAN, SFT-MOD HD, MICRITIC | |
| | TR | PYR, MICA | |
| 3326 | 60 | SH: A/A | |
| | 40 | SST: A/A | |
| | TR | A/A | |

# WELLSITE SAMPLE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1
COORDINATES: 66° 17' 32.82" N, 10° 16' 52.92" E
K.B.E.: 25 METERS COMPANY: STATOIL/ELF/AGIP
HOLE SIZE: 8½" GEOLOGIST: KRISTENSEN/RANAWEERA DATE: 31.5.83

| DEPT | LITH.% | LITHOLOGIC DESCRIPTION | SHOWS&REMARKS |
|---|---|---|---|
| 3329 | 70 | SH: RD BRN-BRICK RD, LT GRY-MED GRY, SFT-MOD HD, MICROMIC, OCC V MICA, SL SLTY-SLTY, OCC MICROPYR, NON CALC | |
| | 30 | SST: CLR-TRANSL QTZ, OCC GRN, FN-MED, OCC CRS, FAIR SRTD, SUBANG, HD, CALC AND SILIC CMTD, MICA IN PRT | |
| | TR | LS: A/A | |
| | TR | PYR | |
| 3332 | 70 | SH: A/A | |
| | 30 | SST: A/A | |
| | TR | LS: A/A | |
| | TR | PYR | |
| 3333 | 70 | SH: A/A | |
| | 30 | SST: A/A | |
| | TR | LS: A/A | |
| | TR | PYR | |
| T.D. | | | |

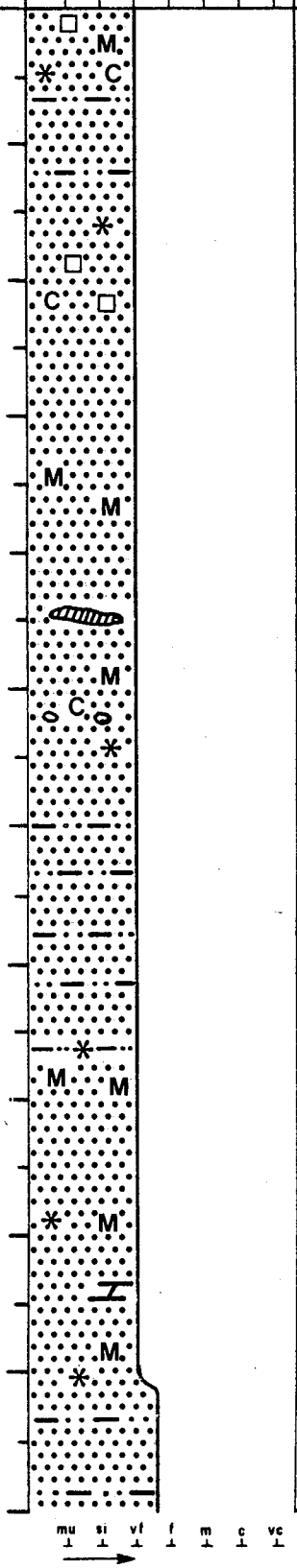
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OPERATØR 20
DOKUMENT WELLSITE6610/7
BESTILT 83/12/05 08 32 45
FORMATERT 83/12/05 08 33 20

DEL-SYSTEM ID AV
OPERATØR 20
DOKUMENT WELLSITE6610/7
BESTILT 83/12/05 08 32 45
FORMATERT 83/12/05 08 33 20

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# CONVENTIONAL CORE DESCRIPTION

| | | | | |
|---|---|---|---|---|
| FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRAENABANKEN | | |
| CORE NO. 1 | INTERVAL from 2183 to 2201.5 | CORED 18.5m | REC 17.6m | 95 % |
| FORM. Cretaceous | GEOLOGIST Clint/Herigstad | DATE 15.5.83 | | |




| LITHOLOGIC DESCRIPTION | MISC. |
|---|---|
| Sst: pa gry, pa brn gry, occ gnish, v fn with v crse grns, crse mlky wh, subrnd, sst fri-frm, subang, poor-mod srtd, sl-mod calc, sl tr glau, carb, with mica and fine pyrite | No fluores or cut |
| Sst: v pa brn-gn gry, v fn-slty, with crse-v crse, hd a/a | -2184.1 sealing wax -2184.4 |
| Sst: brn gry-brn, slty a/a. v v micac | |
| Sst: a/a pa gry with dk brn slty bands | v patchy bl white fluor no cut weak yell residue |
| Sst: wh gry-v pa brn a/a mod hd-hd slty matrix, few crse grns, micac,biotite/ muscovite, sl-mod calc sl glau | dull yell pin point fluor no cut 2187.4 sealing wax 2187.82 |
| Sst: pa gry-gn gry, mod frm, fri, v fn-fn, subang, mod well srtd, non-v sl calc, sl micac sl glau | |

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# CONVENTIONAL CORE DESCRIPTION

| | | | | |
|---|---|---|---|---|
| FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRAENABANKEN | | |
| CORE NO. 1 | INTERVAL from 2183 to 2201.5 | CORED 18.5 | REC 17.6 | 95 % |
| FORM. Cretaceous | GEOLOGIST Clint/Herigstad | | DATE 15.5.83 | |

| DEPTH | LITHOLOGY/ GRAIN SIZE (mu si vf f m c vc) | DIP (apparent) | SHOWS STAIN S F G | SHOWS CUT P F G | SHOWS FLUOR P F G | Φ P F G | LITHOLOGIC DESCRIPTION | MISC. |
|---|---|---|---|---|---|---|---|---|
| 2189 | M | | | | | | Sst: tending to SLTST. pa gry-wh gry, with streaks dk gry, mod hd, v fn-slt, subang-subrnd, well srtd, non calc, micac | No fluor to v weak blue No cut |
| 2190 | M | | | | | | | -2189.86 sealing wax -2190.19 |
| 2191 | M M | | | | | | SLTST: dk brn gry, grding to v fn sst, mod hd, sl calc, v micac | |
| 2192 | M | | | | | | | |
| 2193 | M M M | | | | | | SLTST: med gry/brn gry bands. med gry bands sandy brn gry, v micac. mod hd-hd, mod calc, brittle | |
| 2194 | M | | | | | | | |

mu si vf f m c vc →

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# CONVENTIONAL CORE DESCRIPTION

| | | | |
|---|---|---|---|
| FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRAENABANKEN | |
| CORE NO. 1 | INTERVAL from 2183 to 2201.5 | CORED 18.5 | REC 17.6 | 95 % |
| FORM. Cretaceous | GEOLOGIST Clint/Herigstad | DATE 15.5.83 | |

| DEPTH | LITHOLOGY/ GRAIN SIZE (mu si vf f m c vc) | DIP (apparent) | SHOWS STAIN S F G | SHOWS CUT P F G | SHOWS FLUOR P F G | Φ P F G | LITHOLOGIC DESCRIPTION | MISC. |
|---|---|---|---|---|---|---|---|---|
| 2195 | M | | | | | | SLTST/SST: med brn gry-dk brn, slt- v fn sd. micac, frm-mod hd, brittle, mod calc | No shows<br>-2194.80 sealing wax -2195.11 |
| 2196 | | | | | | | | |
| 2197 | M □ | | | | | | SLTST: med brn gry-dk brn gry-dk brn. mod hd, brittle, mod-sl calc, shaley,micac- v micac. sandy | |
| 2198 | M | | | | | | | |
| 2199 | M | | | | | | | |

mu si vf f m c vc →

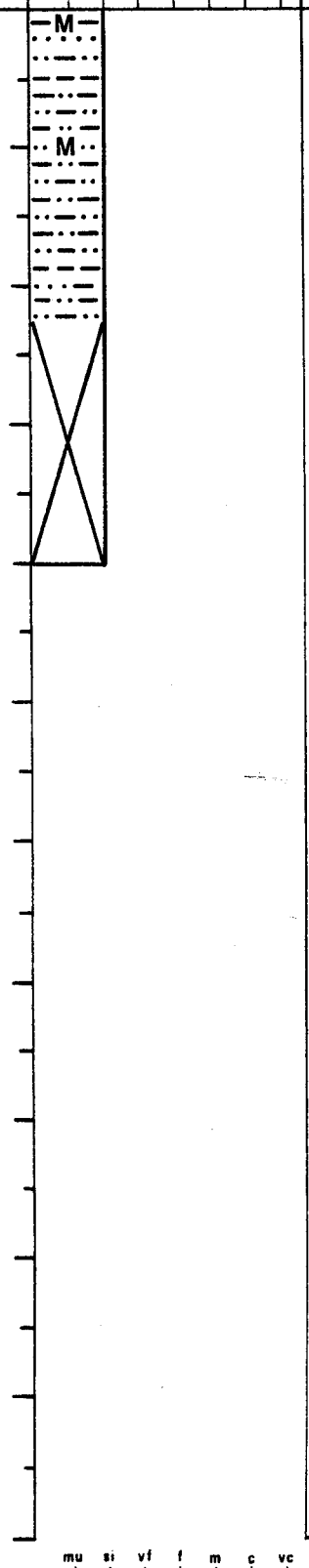
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# CONVENTIONAL CORE DESCRIPTION

FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRAENABANKEN

CORE NO. 1 | INTERVAL from 2183 to 2201.5 | CORED 18.5 | REC 17.6 | 95 %

FORM. Cretaceous | GEOLOGIST Clint/Herigstad | DATE 15.5.83



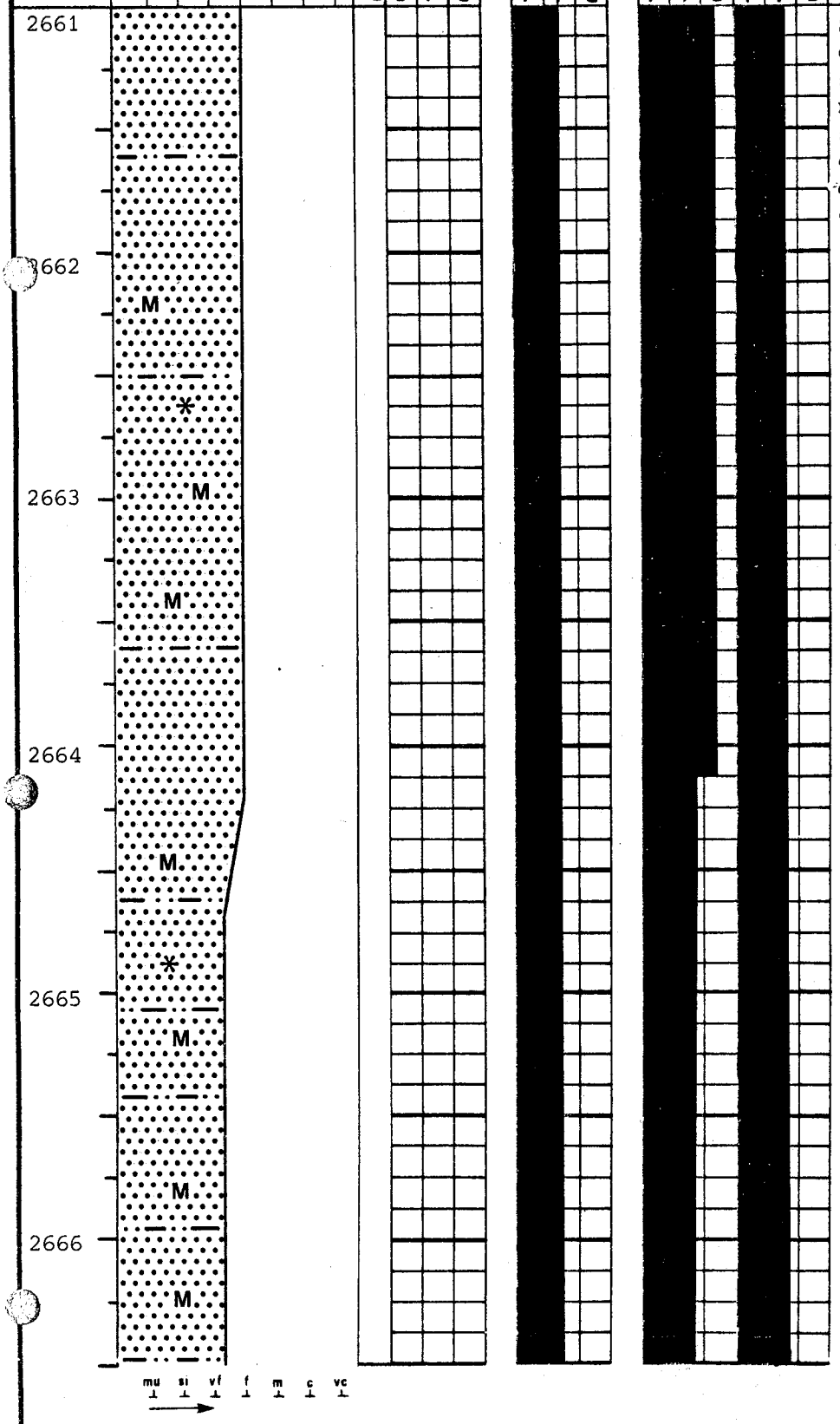
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# CONVENTIONAL CORE DESCRIPTION

FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN

CORE NO. 2 | INTERVAL from 2661m to 2677.5m | CORED 16.5 | REC 16.0 | 97 %

FORM. Jurassic | GEOLOGIST M. Helle/P. Clint | DATE 21.5.83




LITHOLOGIC DESCRIPTION

SST: lt gry-wh, clr qtz, f-v f, occ med, subang-subrnd, fri, sl mic, sl glau, occ sl silica cmt then mod hd, occ grding into lam of arg siltst. med gry, fri-mod hd, mic

lam of mica

SST, mostly v f, mic else a/a

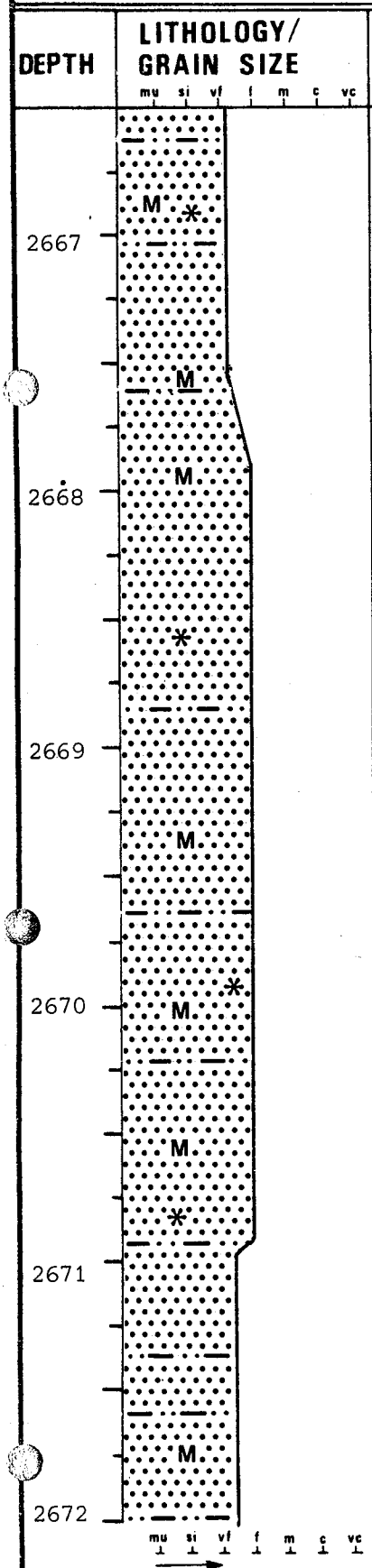
MISC.

Strong bright yel fluors, mod fast strm bluish wh cut in sst. occ patchy fluors in lower parts

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# CONVENTIONAL CORE DESCRIPTION

| | | | |
|---|---|---|---|
| FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN | |
| CORE NO. 2 | INTERVAL from 2661.0m to 2677.5m | CORED 16.5m | REC 16.0m 97 % |
| FORM. Jurassic | GEOLOGIST M. Helle/P. Clint | DATE 21.3.83 | |




**LITHOLOGIC DESCRIPTION**

SST: lt gry-wh, clr qtz, vf-f, subang-subrnd, fri-mod hd, mic, sl glau, kaolinitic, occ silica cmt, fair srtd, partly tight w/disturbed lam of arg siltst, med gry fri, mic

lam of mica

**MISC.**

Bright yel patchy fluors, slow-mod fast strm wh bluish cut frm sst

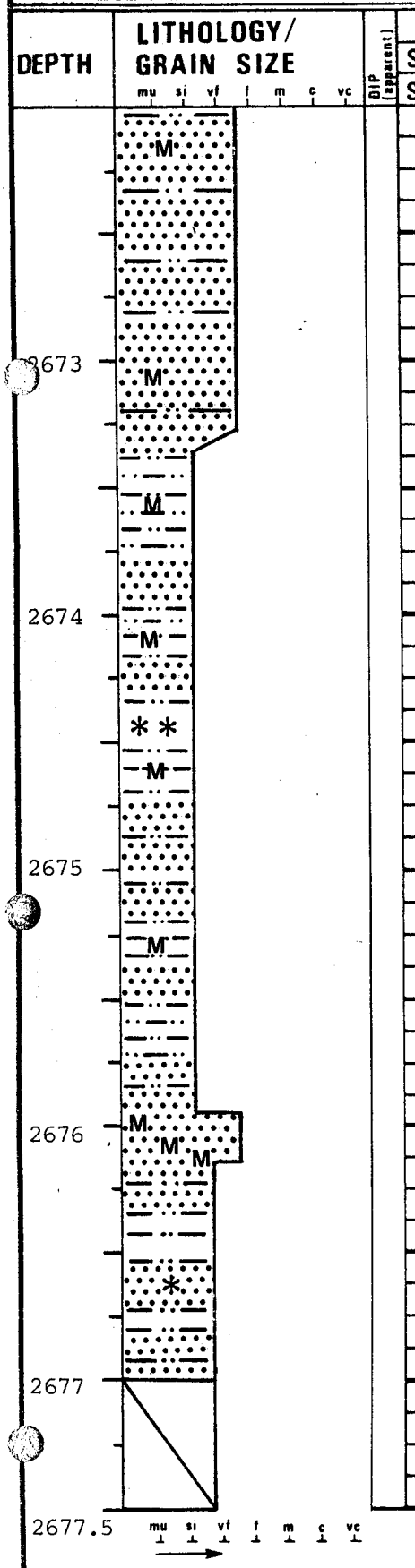
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# CONVENTIONAL CORE DESCRIPTION

FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN

CORE NO. 2 | INTERVAL from 2661.0m to 2676.5m | CORED 16.5m | REC 16.0m | 97 %

FORM. Jurassic | GEOLOGIST M. Helle/P. Clint | DATE 21.5.83




LITHOLOGIC DESCRIPTION

SST: v mic in parts else a/a

SILTST: med gry, fri, mic-v mic, sl glau, sl carb, partly grding to v f sst, tight formations

SST: v mic, else a/a

SILTST: a/a

MISC.

Patchy bright yel fluors, slow-mod fast strm bluish wh cut

Non-patchy fluors in lam of sst, no cut

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# CONVENTIONAL CORE DESCRIPTION

| | | | |
|---|---|---|---|
| FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN | |
| CORE NO. 3 | INTERVAL from 2677.5 to 2687 | CORED 9.5m | REC 9m 95 % |
| FORM. Jurassic | GEOLOGIST P. Clint/M. Helle | DATE 22.5.83 | |

| DEPTH | LITHOLOGY/ GRAIN SIZE (mu si vf f m c vc) | DIP (apparent) | SHOWS STAIN S F G | SHOWS CUT P F G | SHOWS FLUOR P F G | Φ P F G | LITHOLOGIC DESCRIPTION | MISC. |
|---|---|---|---|---|---|---|---|---|
| 2678 | M M M | | | | | | SLTST/SH: brn gry, mod hd, v micac | Dull orng brn fluor with instant to weak yell white crush cut. |
| 2679 | M M | | | | | | SHALE: med brn-brn gry, mod hd-hd, massive -subfiss, non calc, v micac, sl slty | |
| 2680 | M | | | | | | | |
| 2681 | M | | | | | | SHALE: a/a hd, splintry, med brn and brn gry fine laminae, brn gry micac | |
| 2682 | M | | | | | | | Slight brnish fluor No cut |
| 2683 | | | | | | | | |

mu si vf f m c vc →

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# CONVENTIONAL CORE DESCRIPTION

FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN

CORE NO. 3 | INTERVAL from 2677.5 to 2687 | CORED 9.5 | REC 9m | 95 %

FORM. Jurassic | GEOLOGIST P Clint/M. Helle | DATE 22.5.83

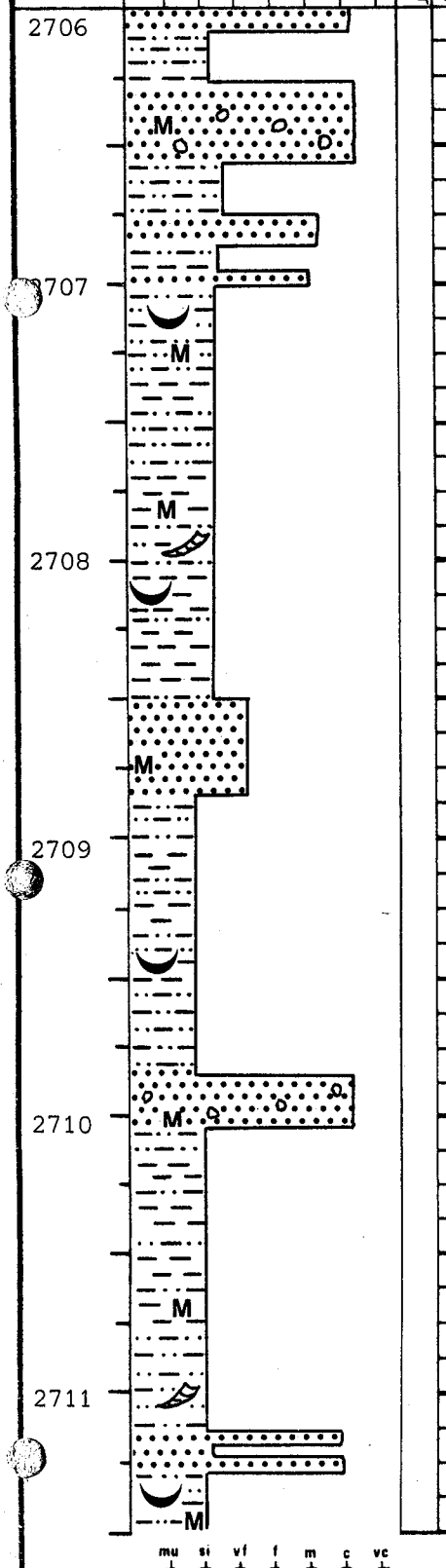
| DEPTH | LITHOLOGY/ GRAIN SIZE (mu si vf f m c vc) | DIP (apparent) | SHOWS STAIN S F G | CUT P F G | FLUOR P F G | Φ P F G | LITHOLOGIC DESCRIPTION | MISC. |
|---|---|---|---|---|---|---|---|---|
| 2684 | M | | | | | | SHALE: med brn, massive, fine slty laminae in part, non calc, sl micac-micromic | Slight brnish fluor, no cut or crush cut |
| 2685 | M | | | | | | 2685.15 waxed. 2685.41 | |
| 2686 | M | | | | | | SHALE: med gry-gry brn, mod hd-hd, non-sl calc, slty, micac | |
| 2687 | | | | | | | | |

mu si vf f m c vc

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# CONVENTIONAL CORE DESCRIPTION

| | | | | |
|---|---|---|---|---|
| FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN | | |
| CORE NO. 4 | INTERVAL from 2706.0 to 2725.17 | CORED 19.7m | REC 19.17 | 100 % |
| FORM. Jurassic | GEOLOGIST M. Helle/P. Clint | | DATE 23.5.83 | |




| LITHOLOGIC DESCRIPTION | MISC. |
|---|---|
| SST: clr-wh, qtz, med-v crs, occ granules, mod hd, ang-subrnd, dol cmt in parts, sl kaolinitic, mic, partly w/slty matrix, poor-mod srtd, massive w/interbeds of siltst, wh-lt gry, mod hd-fri, micromic, grding to v f-f sst, tight lam of sh, med dk gry, mostly v mic, non calc | Bright yel-wh fluors, mod fast strm mlky wh cut in sst<br><br>Siltst and sh have flaser bedding and occ low angle small scale cross-bedding. Shows a/a |
| SST: mostly v f-med, else a/a | |
| SST: med- v crs, occ granules, else a/a | Shows a/a |
| SLTST: wh-lt gry, mod hd-fri, partly dol cmt, micromic, grding to v f sst, tight w/lam of sh, a/a | Flaser-bedding |
| SST: a/a | Occ low angle small scale cross-bedding |

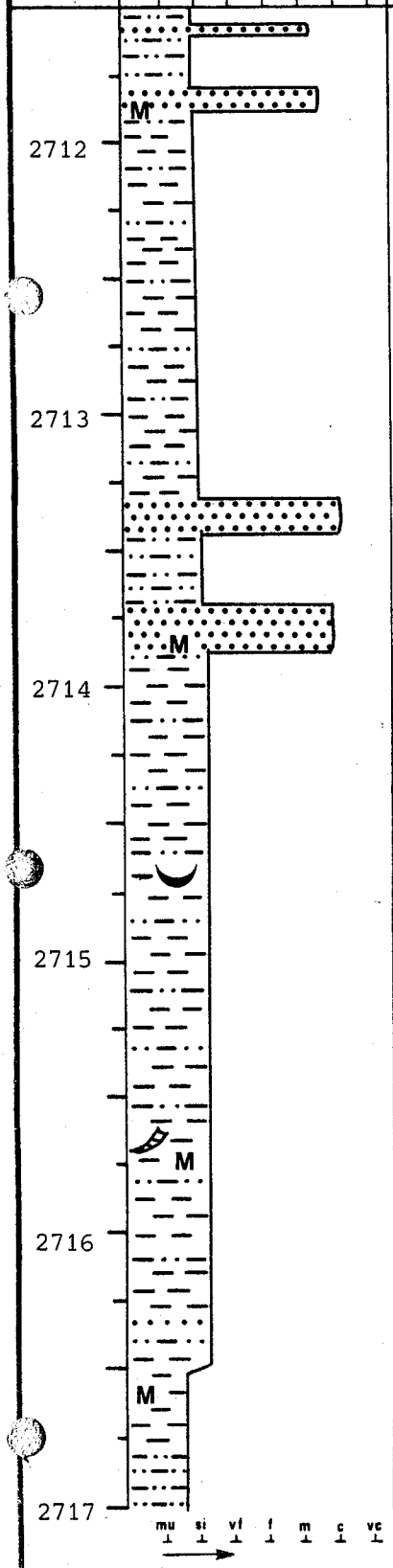
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# CONVENTIONAL CORE DESCRIPTION

FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN

CORE NO. 4 | INTERVAL from 2706.0m to 2725.17 | CORED 19.17m | REC 19.17m | 100 %

FORM. Jurassic | GEOLOGIST M. Helle/P. Clint | DATE 23.5.83

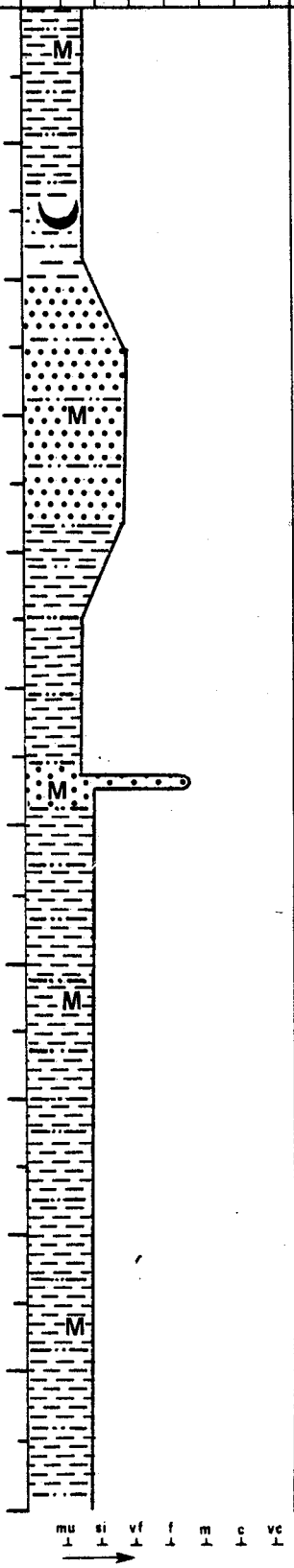



| LITHOLOGIC DESCRIPTION | MISC. |
|---|---|
| SST: a/a | Show in sst: a/a |
| SILTST: a/a | |
| SH: a/a | |
| SST: clr-wh, qtz, med-v crs, subang-rnd, fri-mod hd, sl dol cmt w/kaolin matrix in parts mic, fair srtd | No shows |
| SLTST: wh-lt gry, mod hd, partly dol cmt, micromic grding to v f sst, tight w/thin beds and lam of sh, med-dk gry, mod hd, mic-v mic, non calc, slty in parts | Flaser-bedding<br>Occ low angle small scale crossb. |
| Sh: a/a w/thin beds of sltst, a/a | |

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# CONVENTIONAL CORE DESCRIPTION

| | | | |
|---|---|---|---|
| FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN | |
| CORE NO. 4 | INTERVAL from 2706.0 to 2725.17 | CORED 19.17m | REC 19.17m 100 % |
| FORM. Jurassic | GEOLOGIST M. Helle/P. Clint | DATE 23.5.83 | |




| DEPTH | LITHOLOGY/ GRAIN SIZE | DIP (apparent) | SHOWS STAIN S F G | SHOWS CUT P F G | SHOWS FLUOR P F G | Φ P F G | LITHOLOGIC DESCRIPTION | MISC. |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | SH: a/a | No shows |
| | | | | | | | | Flaser bedding |
| 2718 | | | | | | | SLST: a/a w/thin streaks of sst, v f-f, else a/a | |
| 2719 | | | | | | | | |
| | | | | | | | SST: v f-med, else a/a | |
| 2720 | | | | | | | SH: med gry, micromic, mod hd, grding to sltst in parts | |
| 2721 | | | | | | | | Flaser bedding |
| 2722 | | | | | | | | Partly parallell lam |

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# CONVENTIONAL CORE DESCRIPTION

FIELD Wildcat | WELL NO. 6610/7-1 | AREA TRÆNABANKEN

CORE NO. 4 | INTERVAL from 2706.0m to 2725.17m | CORED 19.17m | REC 19.17m | 100 %

FORM. Jurassic | GEOLOGIST M. Helle/P. Clint | DATE 23.05.83

| DEPTH | LITHOLOGY/ GRAIN SIZE (mu si vf f m c vc) | DIP (apparent) | SHOWS STAIN S F G | SHOWS CUT P F G | SHOWS FLUOR P F G | Φ P F G | LITHOLOGIC DESCRIPTION | MISC. |
|---|---|---|---|---|---|---|---|---|
| 2723 | M | | | | | | SST: wh-buff, v f-f, occ w/med-crs grains, fri-mod hd, dol cmt, partly w/kaolin matrix, slty, poor srtd | No shows |
| | M | | | | | | Interbedded sltst and sh | |
| 2724 | | | | | | | | |
| | M | | | | | | | |
| 2725 | | | | | | | | |

mu si vf f m c vc →

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 1252 | - | LOST | | |
| 1260 | 5 CM | CLYST: MED GRY, GRNISH GRY, SFT, V STCKY, MICROMIC, NON CALC | | NO SHOWS |
| 1275 | 5 CM | CLYST: SL STY, ELSE A/A | | |
| 1285 | 5 CM | CLYST: DK GRY, SFT, V STCKY, MICROMIC, NON CALC | | |
| 1300 | 4 CM | CLYST: MED-DK GRY, SFT-FRM, V SLTY GRADING TO FN SD, V CALC, MICROMIC | | |
| 1305 | 5 CM | SST: FN-MED, OCC V FN, OCC CRS, CLR-WH QTZ, ANG-SUBRND, PR SRTD, V ARG, CALC | | |
| 1313 | 2.5 CM | CLYST: LT-MED GRY, V SLTY, SFT, STCKY, MICROMIC, NON-SL CALC | | |
| 1325 | 5 CM | CLYST: DK GRY, SFT, STCKY, MICROMIC NON-SL CALC | | |
| 1332 | 5 CM | SLTST: LT GRY, DK GRY W/ARG, MLKY QTZ GRNS, NON CALC, FRI | | |
| 1334 | 3.5 CM | CLYST: CALC, GRNISH GRY, SFT, STCKY, SL SLTY CALC W/SLTY, ELSE NON CALC, MICROMIC | | |
| 1335 | 4 CM | CLYST: V SLTY, V CALC, ELSE A/A, FRM | | |
| 1340 | 3.5 CM | CLYST: CALC, ELSE A/A | | |
| 1348 | 2.5 CM | CLYST: SL CALC, SL SLTY, ELSE A/A | | |
| 1352 | | LOST | | |
| 1363 | 3.5 CM | CLYST: A/A | | |
| 1373 | 3 CM | CLYST: MED GRY, SLTY, V CALC, ELSE A/A | | |
| 1385 | | A/A | | |
| 1400 | 3 CM | CLYST: SL CALC, ELSE A/A | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 1405 | 4 CM | CLYST: MED-DK GRY, CALC, GRNISH GRY, SFT, STCKY, SL SLTY CALC W/SLTY, ELSE NON CALC, MICROMIC | | NO SHOWS |
| 1420 | 4 CM | CLYST: A/A | | |
| 1442 | 2 CM | CLYST: MED GRY, ELSE A/A | | |
| 1450 | 5 CM | CLYST: GRNISH GRY, SFT, STCKY, SL CALC W/SLTY, ELSE NON CALC, MICROMIC | | |
| 1454 | 5 CM | CLYST: A/A | | |
| 1466 | | EMPTY | | |
| 1479 | | EMPTY | | |
| 1499 | 3.5 CM | CLYST: A/A | | |
| 1505 | 5 CM | CLYST: GRNISH GRY, MED GRY, SFT, STCKY, ELSE A/A | | |
| 1510 | 1 CM | CLYST: BRNISH DK GRY, FRM, SL SLTY, MICROMIC, NON CALC | | |
| 1520 | 4 CM | CLYST: DK GRY, V STCKY, SFT, MICROMIC, NON CALC | | |
| 1537 | 5 CM | CLYST: A/A | | |
| 1560 | 4 CM | CLYST: DK GRY, V STCKY, SFT, MICROMIC, SL CALC | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 1586 | 1 CM | CLYST: MED GRY, V SFT, V STCKY, CALC MICROMIC, SL SLTY | | |
| 1589 | 3.5 CM | CLYST: MED.DK GRY, SFT, V SLTY, V CALC MICROMIC<br>SDGRNS: CLR QTZ, CRS, SUBRND | | |
| 1597 | 5 CM | CLYST: MED-DK GRY, SFT, V SLTY, V CALC, MICROMIC | | |
| 1602 | 4 CM | CLYST: MED GRY, SFT, STCKY, V CALC | | |
| 1615 | 3.5 CM | CLYST: MED-DK GRY, V CALC, ELSE A/A | | |
| 1616 | 3.5 CM | CLYST: GRNISH GRY, SFT, STCKY, NON CALC, MICROMIC, SL SLTY | | |
| 1617 | 5 CM | EMPTY | | |
| 1620 | 5 CM | CLYST: MED GRY, SFT, STCKY, V CALC, MICROMIC, SL SLTY | | |
| 1621 | 2 CM | CLYST: STCKY, NON CALC, SL CALC, MICROMIC, SL SLTY | | |
| 1627 | 4.5 CM | CLYST: MED GRY, V CALC, FIRM, ELSE A/A | | |
| 1630 | 4.5 CM | CLYST: GRNISH GRY-MED GRY, SFT, STCKY, NON-SL CALC, ELSE A/A | | |
| 1635 | 2.5 CM | CLYST: DK GRY, SFT, SL STCKY, SL CALC, SL SLTY | | |
| 1667 | 3 CM | CLYST: DK GRY, SL SLTY, SL CALC, ELSE A/A | | |
| 1680 | 2.5 CM | CLYST: LT GRY, SFT, STCKY, V SLTY, V CALC, MICROMIC | | |
| 1701 | 4.5 CM | CLYST: MED GRY, ELSE A/A | | |
| 1748 | 4.5 CM | CLYST: DK GRY, SFT, STCKY, MICROMIC, SL CALC | | |
| 1765 | 2.5 CM | CLYST: GRNISH DK GRY, STCKY, V CALC, ELSE A/A | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 1780 | 2 CM | CLYST: DK GRY, V STCKY, SL CALC, ELSE A/A | | |
| 1818 | 2.5 CM | CLYST: LT GRY, V STCKY, SLTY, V CALC, ELSE A/A | | |
| 1830 | 5 CM | CLYST: RD BRN, OCC DK GRY, V STCKY, SFT-FRM, SL SLTY, W/DK GRY CALC | | |
| 1842 | 4 CM | CLYST: MED-DK GRY, CALC, ELSE A/A | | |
| 1860 | 3.5 CM | CLYST: DK GRY, SL SLTY, SL CALC, ELSE A/A | | |
| 1878 | 4 CM | CLYST: GRNISH GRY, PYR, ELSE A/A | | |
| 1917 | | LOST | | |
| 1950 | | LOST | | |
| 1971 | 4 CM | CLYST: LT-MED GRY, SFT-FRM, STCKY, SLTY, MICROMIC, CALC | | |
| 1977 | 3.5 CM | CLYST: DK GRY, CALC, ELSE A/A | | |
| 2006 | 3 CM | CLYST: MED-DK GRY, SFT-FRM, STCKY, SLTY, MICROMIC, SL CALC | | |
| 2093 | | LOST | | |
| 2108 | | LOST | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 2117 | - | | | |
| 2136.2 | - | | | |
| 2165 | - | | | |
| 2215 | 75 | CLYST: LT-MED GRY, V CALC | | NO SHOWS |
| 2250 | 60 | A/A | | |
| 2260 | 80 | A/A | | |
| 2267 | 80 | A/A | | |
| 2270 | 70 | A/A | | |
| 2272 | 90 | CLYST: DK BRN-BLK, FRM, MICROMIC, SL-NON CALC | | |
| 2278 | 80 | A/A | | |
| 2283 | 70 | A/A | | |
| 2287 | 75 | A/A | | |
| 2290 | 90 | A/A | | |
| 2294 | 90 | A/A | | |
| 2297 | - | | | |
| 2303 | 90 | A/A | | |
| 2307 | - | | | |
| 2313 | 100 | A/A | | |
| 2315 | 30 | SH: DK GRY-MED GRY, V CALC, V HD | | |
| 2325 | 100 | CLYST: DK BRN-BLK, FRM, MICROMIC, SL-NON CALC | | |
| 2350 | 100 | A/A | | |
| 2360 | 100 | A/A | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 2380 | - | | | |
| 2400 | 100 | CLYST/SH: DK BRN-BLK, FRM, MICROMIC, NON CALC | | NO SHOWS |
| 2415 | - | | | |
| 2435 | - | | | |
| 2445 | - | | | |
| 2450 | 50 | A/A | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 2355 | 40 | CLYST/SH: LT-DK GRY, OCC SLTY, (IN BANDS), MICROMIC, V CALC | | NO SHOWS |
| 2470 | 50 | CLYST/SH: DK BRN-BLK, FRM, MICROMIC, NON CALC | | |
| 2480 | 70 | A/A | | |
| 2490 | 40 | A/A | | |
| 2505 | 50 | CLYST/SH: A/A BUT OCC SMALL SPOTS W/ WEAK BLUISH FLU | | SEE TEXT |
| 2525 | 60 | A/A | | NO SHOWS |
| 2540 | 50 | A/A | | |
| 2570 | 60 | A/A | | |
| 2585 | 50 | A/A | | |
| 2600 | 40 | A/A, BUT ALMOST NO SLT | | |
| 2613 | 10 | A/A | | |
| 2632 | 30 | A/A | | |
| 2645 | 30 | A/A | | |
| 2652 | 40 | A/A, BUT SLTY THROUGHOUT | | |
| 2656 | 40 | A/A | | |
| 2695 | 30 | A/A | | |
| 2700 | 30 | CLYST/SH: LT-DK GRY, OCC SLTY, (IN BANDS), MICROMIC, V CALC | | |
| 2740 | 30 | A/A | | |
| 2745 | 30 | A/A, BUT SLTY THROUGHOUT | | |
| 2755 | 40 | A/A | | |
| 2768.5 | 40 | A/A | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 2789.5 | 40 | CLYST/SH: A/A ALTERNATING W/ SLTST, SLTST HAS A WEAK BLUSIH-PNKISH FLU | | SEE TEXT |
| 2803.2 | 25 | SLTST/SST: LT GRY-CLR QTZ-WH, SLT-MED SD | | NO SHOWS |
| 2813 | 30 | CLYST/SH: A/A W/ THIN BANDS OF SLTST | | |
| 2827 | 30 | SLTST W/ THIN BANDS OF CLYST/SH | | |
| 2836 | 40 | AS FOR 2789.5 | | SEE TEXT |
| 2844 | 30 | SLTST/SST: AS FOR 2803.2 | | NO SHOWS |
| 2855.3 | 40 | CLYST/SH: W/ COAL SEAMS<br>CLYST/SH: DK GRY-BLK, FRM, MICROMIC<br>COAL: BLK, SH, BRIT | | |
| 2876 | 30 | CLYST/SH: AS 2813 | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
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COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 2879 | 30 | SH W/SEAMS OF COAL<br>SH: DK GRY-BLK, FRM, MICROMIC | | NO SHOWS |
| 2893 | 25 | SLTY SST: SLT-FN SD, LT GRY-MED GRY, LS MICA, SL-NON CALC | GD-PR | |
| 2903 | 40 | SLTY SST: A/A W/ THIN COAL SEAMS | | |
| 2917.5 | 30 | A/A | POOR | |
| 2928.5 | 40 | CLYST/SH: DK GRY-BLK, MICROMIC, BRIT | | |
| 2945.2 | 30 | SLTY CLYST W/ COAL SEAMS.<br>SLTY CLYST: LT-MED GRY, HD | | |
| 2986 | 30 | SH CLYST: MED GRY, HD, NON CALC | | |
| 3000.1 | 15 | A/A | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 2934.3 | 25 | SLTY CLYST W/ COAL SEAMS OF VARIABLE THICKNESS. CLYST: LT GRY-MED GRY, MICA, NON CALC. COAL: BLK, SH, BRIT | | NO SHOWS |
| 2963 | 25 | A/A, BUT NO COAL | | |
| 2980 | 30 | A/A | | |
| 3000.2 | 30 | SLTY SST: CLR-MLKY, WH-LT GRY, SL-NON CALC, MAX GRN SIZE FN SD | | |
| 3040.5 | 25 | SH CLYST: DK GRY, FRM-HD, MICROMIC | | |
| 3045 | 30 | A/A | | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 3053 | 40 | SLTST W/ LAMS OF CLYST/SH AND THICKER BANDS OF CLYST/SLTST<br>SLTST: WH-LT GRY, MUSC + BIOT<br>CLYST/SH: BLK-DK GRY, FOLIAT<br>CLYST/SLTST: LT-MED GRY, FRM<br>THE SLTST HAS WEAK WHITISH FLU, NO CUT | | SEE TEXT |
| 3068 | 40 | CLYST: DK GRY, STCKY | | NO SHOWS |
| 3076 | 40 | CLYST: DK-MED GRY, SLTY, OCC SDY | | |
| 3105 | 25 | SLTST: LT-MED GRY, SDY, LS, NON CLC | | |
| 3135 | 25 | SST/SLTST: SLT-CRS SD, CLR QTZ, MLK WH-LT GRY, LS, MICA, NON CALC | | WEAK WH FLU, NO CU |
| 3148 | 60 | COAL: BLK, SH, BRIT | | |
| 3151 | 50 | A/A | | |
| 3157.5 | 40 | CLYST: DK GRY, STKY, NON CALC | | NO SHOWS |
| 3174.5 | 40 | A/A | | |
| 3187 | 30 | CLYST/SH: DK-MED GRY, MICROMIC, OCC SLTY, NON CALC | | |
| 3193.4 | 40 | CLYST/SH: DK GRY-BLK, STKY, PURE, MICROMIC, NON CALC | | |
| 3204.3 | 30 | CLYST: MED GRY, STKY, MICROMIC, SFT-FRM, NON CALC | | |
| 3206.5 | 30 | CLYST: A/A, BUT A BAND OF SLTY, LT-MED GRY CLYST | | |
| 3216 | 30 | CLYST: DK GRY-BLK, MICROMIC, SFT-FRM, TOGETHER W/ SLTST/CLYST, LT-MED GRY, MICA, FRM-HD. SLTST HAS A WEAK WHITISH FLU | | SEE TEXT |
| 3220 | 35 | SLTST/CLYST: LT GRY, SFT-FRM, MICA, W/ LENSES OF MED GRY CLYST, SFT, STRUCTURLESS | | WEAK WH F |
| 3228 | 25 | SLTST/SST: LT GRY, ARG | POOR | |

# SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY AREA: TRÆNABANKEN FIELD: WILDCAT
WELL NO: 6610/7-1 RUN NO.: INTERVAL:
COORDINATES: 60° 17' 32.82"N; 10° 16' 52.92"E
K.B.E.: 25 METERS COMPANY : STATOIL/ELF/AGIP
HOLE SIZE: GEOLOGIST: DATE:

| DEPTH | REC. % | LITHOLIGIC DESCRIPTION | POROSITY % | SHOWS |
|---|---|---|---|---|
| 3235 | 25 | A/A | | |
| 3239.1 | 30 | CLYST: LT-MED GRY, FRM, STRUCTURLESS, STKY | | NO SHOWS |
| 3241.5 | 25 | SLTST: GRY, MICA | POOR | |
| 3249.7 | 70 | CLYST: GRY, OCC RD BRN | | |
| 3258 | 80 | A/A | | |
| 3268.5 | 40 | CLYST: DK-MED GRY, SLTY, MICA, STKY | | |
| 3275 | 45 | SLTST/SST W/ MUCH CLY, LT GRY | POOR | WEAK WH FL |
| 3287.5 | 50 | CLYST: RD-BRN, BRICK RD, FRM, NON CALC | | |
| 3299 | 100 | CLYST: LT GRY-RD BRN, STKY, MICROMIC, HD-FRM, NON CALC | | |
| 3305 | 25 | SLTST/SST: LT GRY, W/ MUCH CLY | POOR | WEAK WH F |
| 3311 | 100 | CLYST: LT-MED GRY, STKY, FRM-HD | | |
| 3316 | 40 | A/A, BUT OCC SLTY | | |

# III DRILLING REPORT

DRILLING REPORT

1. SUMMARY
2. DRILLING OPERATIONS IN INTERVALS
3. EXTRACT OF DAILY ACTIVITIES
4. WELL AND SUBSEA SCHEMATIC
5. FORMATION INTEGRITY TESTS
6. RIG TIME DISTRIBUTION
   DRILLING TIME VS. DEPTH
   DRILLING COST VS. DEPTH
7. BIT RECORD AND LITHOLOGY COLUMN
8. PRESSURE PROFILES
9. SURVEY
10. DRILLING FLUID SUMMARY
11. EQUIPMENT FAILURES

## III 1 SUMMARY

## III.1 SUMMARY WELL 6610/7-1

The drilling unit "Neptuno Nordraug" was transferred from well 34/10-16 to well 6610/7-1 the 13th of April 1983 at 0210 hrs. Arrived location 15th of April at 0600 hrs after 52 hours towing. Average speed was close to 8 knots. Lost 1-2 days during anchor handling, see chapter 4: Marine Report.

The well was drilled to TD 3333m in 49 days versus planned TD 3240m in 58 days. But 10.5 days were lost due to seamens strike. A total of 67 days and 10 hours was spent on this well. 64 days was the time estimate for a dry well.

No major problems occured during drilling this well. A total of 4 cores were cut in 8 1/2" hole, and an intermediate logging run determined that the well was dry.

The objectives of this well was sanstones of Middle and Lower Jurassic age, and the purpose was to gather information about the hydrocarbon potential and stratigraphy of the Helgeland Basin. This was a dry well with oil shows in Lower Jurassic Sandstone. TD was 3333m or 99m into Upper Triassic Red Beds.

# III 2 DRILLING OPERATIONS IN INTERVALS

## III 2: Drilling Operations in Intervals.

The semisubmersible drilling unit "Neptuno Nordraug" was anchored in 265m of water the 15th - 18th of April 1983. Anchor chain no. 5 was changed. Immediately after anchor no. 5 was run, all anchors were pulltested to 160 tons. Anchor no. 5 slipped. Reset anchor no. 5. Started slipping with 140 tons tension. Let anchor no. 5 soak for 6 hours. Still slipping. Got permission from DnV to start drilling before all anchors were pulltested. Piggy backed anchor no. 5. Pulltested anchor no. 5 to 150 tons before riser was run.

Lost 17 hours due to slipping anchors and 28.5 hours due to weather.

Final position was: N 66° 17' 32.82"
E 10° 16' 52.92"
14m-44° from intended position.
Rig heading 225°

### 36" hole: 290-355m

The 36" hole was drilled with a 26" bit and a 36" hole opener in one run. 65m drilled in 17.8 hours gives an average ROP of 3.65 m/hr. The bit was graded 2,2,I. A pinger was set on the seabed just beside the 36" hole before POOH. The 30" casing was run with Permanent Guide Base and stabbed into the well utilizing the Mantis/TV. Had good returns during cement job, but float did not hold. Held back-pressure for 6 hours before opening up and backed out running tool.

### 26" hole: 353-812m

Drilled out of the 30" casing using a 26" bit. Ran pinconnector and riser. 9 of 16 riserjoints had floatation elements.

Permanent Guide Base was reported to have 1.5 degree deviation and survey at bottom of 36" hole showed 1/2 degree.

Drilled 12 1/4" pilothole from 355-815m in 14 hours (32 m/hr). Opened the hole to 26" using two underreamers. Spent 48 hours on opening the hole. Survey showed 3 3/4 deg. on bottom of the pilot hole.

There was no sign of abnormal pressure in this section of the well, and the mudweight was kept as low as possible, i.e. 1.06-1.12 S.G. during drilling. Displaced the hole with 1.3 S.G. mud before pulling the riser. Made a check-trip with 26" bit.

Circulated capasity of 20" casing before cement job. Observed returns with TV-camera. For 1 min had partly returns through 30"/20" annulus at 50 spm. Rest of the circulation had all returns up on outside of the 30" casing with 60 spm rate. During cement job, had also returns up on outside of 30" casing. Plug bumped in float collar with 35 bar above circulation pressure. Released pressure and bled back 200l. Float held OK. Ran BOP and tested same. Closed shear ram with acoustic system and pressure tested 20" casing to 103 bar.

In this section of the well, drill pipe was rotated a total of 67 hours inside riser/pinconnector. When the riser was pulled, severe damage was noticed on the joint above the balljoint, and the balljoint itself had to be completely stripped down and rebuilt. On the pinconnector itself there was no demage, but the wear ring was completely worn out.

17 1/2" hole: 815-1265m

This section was drilled using a Gyp-Lignosulphonate mud system. Drilled 3m new formation and performed leak-off test eq. to 1.46 S.G. mudweight.

Drilled with Smith DSJ from 815-1016m with a ROP of 10.6 m/hr, and a X3A averaged 19.5 m/hr the last 244m.

Mudweight was increased in steps during drilling. Increased to 1.18 S.G. at 1016m, 1.22 S.G. at 1085m, 1.29 S.G. at 1123m, 1.35 S.G. at 1226m. At bottom, i.e. at 1260m, the mud weight was increased to 1.45 S.G. (Note: leak off was 1.46 S.G.).

During tripping, overpull was experienced at several places. At 1076-974m we had max. 27 tons overpull. And later, between 1204-1078m and 1050-937m we had maximum 36 tons overpull. When TD was reached, we had 27 tons overpull between 1220-1125m.

The inclination of the hole was down to 1/2 deg at bottom of this section.

Schlumberger ran 3 logs. On the third log, the HDT, we had a tool failure at 950m. Pulled out of hole and found tool packed with clay. Cleaned the tool and logged from TD with no further problems.

The pore pressure was determined to be 1.31 S.G. from the d-exponent at 1265m. Overpull on trips was another pressure indicator but to some extent may have been caused by hydrating claystones. At 1185m large splintery cavings were seen coming over the shale shakers showing once again a hole with slightly underbalanced conditons. The somic log showed good correlation with the d-exponent, and it showed the starting point of the pressure increase to be at +/- 960m (the unconformity at 952m is very clear on the sonic).

Formation drilled was predominantly claystone, loose sand from 893-912m, then claystone which was silty in parts. Tuffaceous clay were drilled from 1150-1250m.

The 13 3/8" casing was run without problems, but circulation was lost prior to the cement job. Lost returns with 60 SPM/ 73 bar. Reduced to 40 SPM/ 45 bar and still did not get returns. Regained circulation by reciprocating the casing. Pumped a LCM-pill ahead of cement and reciprocated pipe during cement and displacement (40 SPM). Had almost full returns during the job, and the plug was bumped with 152 bar. Bled off pressure and checked for backflow. Floats held OK. Casing was tested to 172 bar.

12 1/4" hole: 1265-2115m

This section was also drilled using a Gyp-Lignosulphonate mud. Cut mudweight to 1.4 S.G. Drilled 3m new formation and performed leak off test equivalent to 1.74 S.G. mudweight.

Drilled to 1450m and took survey at 1356 and 1450m. Tight on connection at 1450m, reported 15 tons overpull. Before drilling was proceeded, mudweight was raised to 1.5 S.G. After a survey at 1555m, the flowline was plugged of gumbo resulting in a loss of 32 $m^3$ mud. Drilling Detergent was added to the mud, and the problem with blocked flowline disappeared.

Drilled down to 2115m with no further difficulties. ROP decreased from 14.7 m/hr in the top part down to 5.4 m/hr in the bottom part. This may reflect the fact that the pore pressure decreased towards normal pressure while we kept 1.5 S.G. mud. At bottom we were close to 100 bar overbalance.

7 logs were run, and a bit trip was made after log no. 5. Logs showed/confirmed a maximum porepressure of 1.41 S.G. at approx 1550m.

9 5/8" casing was run and cemented with no problems using 1.9 S.G. slurry. Plug was bumped with 70 bar pressure, and the float held OK.
The casing was pressure tested to 242 bar.

8 1/2" hole: 2115-3333m

This section was drilled with a Gel/Lignosulphonate mud system, i.e. the gyp content was allowed to drop back naturally, and the mud was also heavily diluted. The mudweight used in the whole section was 1.23 S.G.

3m new formation was drilled and performed a leak off test eq. to 1.74 S.G. mudweight.

At 2183m we had a drilling break and core no 1 was cut from 2183-2201.5m. This core contained no shows, and normal drilling was resumed to 2308m. A survey was dropped and it wasn't possible to get overshot for survey through jar, and we had to POOH to retrieve the survey. The bit was graded 2.5.I after 106.5m.

Continued drilling to 2661m with an average ROP of 6 m/hr. A drilling break occurred and the sand contained good shows, but no significant gas was seen. Core no. 2 were cut from 2661-2677.5m, and core no. 3 from 2677.5-2687m. Core no. 3 contained mostly shale, siltly in upper section.

Drilled with rock bit to 2706m, and core no. 4 were cut from 2706-2725m. This core also contained very little sand, and a J-22 drilled to 2924m where it was pulled due to torque.

Because of shows and the long distance to bring test equipment, it was decided to run an intermediate log. The log confirmed then that the sands only contained residual oil.

Drilling proceeded to 3333m with an average ROP of 6 m/hr. This was decided to be total depth, and it was 99m into Triassic Formation.

Porepressure is believed to be normal throughout the whole 8 1/2" section. A final set of logs were run at TD including 6 runs with CST.

Plug and Abandon

The 8 1/2" hole were plugged with cement in open hole up to 2600m, and across the 9 5/8" shoe.

For information of plugging, see "Extract of daily activity" and III 4 Wellbore Schematic.

The plugging was delayed after setting the last cement plug due to seamens strike. The rig was shut down 11 days.

Before setting the last 200m cement plugs, a 17 1/2" bit was not run to clean the casing wall to ensure a good cement bond to the 20" casing. When the BOP was pulled, the cement plug was dressed off and another plug was laid on top and then dressed off.

20" x 30" casing was cut at 296m. Attempted to pull the wellhead. Had 245 tons overpull. Pulled several times. 20" came finally loose. Recut 30" at 295m. Pulled 30" and base plate loose with 100 tons overpull. The cut appeared to be irregular, indicating bad centralization.

# III 3 EXTRACT OF DAILY ACTIVITY

III 3. EXTRACT OF DAILY ACTIVITIES.

13.04. Rig under tow to new location.

14.04. Rig under tow to 6610/7-1. Average speed: 8 kts.

15.04. Rig in transit to 6610/7-1. Dropped anchor no. 4 at 0545 hrs. Rig in location at 0600 hrs. Started anchorhandling.

16.04. WOW for 20 hrs. Continued anchorhandling.

17.04. WOW for 8,5 hrs. Finished anchorhandling. Pulltested anchors to 159 tons. Anchor no. 5 slipped.

18.04. Reset anchor no.5 and pulltested. Anchor slipped w/140 tons tensiom. Let anchor no. 5 soak in seabed. Pulltested same - no success. Tagged bottom w/26" bit at 290 m. Jumped mantis to inspect seabed. Drilled 36" hole to 318 m.

19.04. Drilled to 355 m. Pumped spud mud every connection. Displaced hole w/visc. gel mud and dropped survey. Jumped mantis and installed pinger 5 m from wellhead. Started to run 30" csg. Jumped mantis for observation at seabed.

20.04. Cont. RIH w/csg to TD. Pick up 1 m and circ. w/seawater until returns at seabed. Csg shoe at 353 m. Cemented 30" csg.. Displaced cement w/seawater. WOC for 6 hrs. RIH w/26" bit and tagged top of cmt at 345 m. Drilled cmt from 345-353 m. Displaced hole w/23,8 $m^3$ visc. gel mud.

21.04. Ran pin connector and marine riser. Pulltested, tensioned rucker lines and installed diverter housing. Made up new BHA and drilled 12-1/4" pilothole from 355-594 m.

22.04. Drilled to 815 m. Checked for flow, well static. Circulated and conditioned hole, dropped survey. Wipertrip, RIH to TD and circ. POOH.
Rigged up Schlumberger and ran logs:
Run no. 1: ISF/SONIC/GR.
Run no. 2: LDT/GR.
Made up new BHA w/17-1/2" HO and 26" UR.

23.04. Opened 12-1/4" hole to 26" from 355-586 m.

24.04. Circ. and POOH. Changed out UR. Continued to open 12-1/4" hole to 26".

25.04. Opened pilothole to 26" to 812 m. Displaced hole to 1.3 SG mud and riser with seawater. Dropped level in riser to sealevel. Observed well. OK. Pulled riser. RIH w/26" bit to 812 m.

26.04. POOH. Rigged up and ran 20" casing and cemented same.

27.04. Ran BOP and riser. Attepted to connect kill and choke line goosenecks. Look down pins did not fit in padeyes. Modified padeyes. Displaced riser with 1,1 SG mud. Closed shear ram with acoustic backup system and pressure tested 20" casing to 103 bar.

28.04. Tested BOP to 241 bar. RIH with 17-1/2" bit. Tagged cement at 773 m. Drilled cement, shoe and 3 m new formation. Performed leak off test eq. to 1.46 SG. Dropped survey, retrieved same and took a new leak off test. Confirmed 1.46 SG. Drilled 17-1/2" hole from 818-923 m.

29.04. Dropped survey and retrieved same in 20" shoe. Misrun. RIH and took another survey. OK. Drilled to 1016 m. Circulated bottoms up and dropped survey. POOH. Max 25 tons drag at 965 m. Survey misrun. RIH with new bit. Made 3 attempts with sperry sun single shot survey instrument.

30.04. Changed out survey instrument. Took survey with Eastman instrument. OK. Drilled 17-1/2" hole from 1016-1085 m. Circulated and raised mudweight from 1.14 SG to 1.22 SG. Drilled to 1123 m. Took survey and pulled out to 974 m. Had 27 tons overpull. RIH. Retrieved survey and increased mudweight to 1.29 SG.

01.05. Drilled to 1226 m. Increased mudweight to 1.35 SG and dropped survey. Pulled into 20" shoe. Tight hole from 1204-1078 m and 1050-937 m. Max 36 tons overpull. Retrieved survey. Drilled to 1260 m, circulated and increased mudweight to 1.45 SG. Dropped survey and pulled into 20" shoe. Tight hole from 1220-1125 m. Max 27 tons overpull. RIH to TD. No fill. POOH.

02.05. Ran log no. 1: ISF/SONIC-GR-SP.
Run no. 2: LDT-GR.
Run no. 3: HDT. Tool failure at 950 m.
POOH and found tool packed with clay. Cleaned and reran log.
RIH with 17-1/2" bit. No fill. Drilled 5 m new hole and circulated bottoms up. POOH. Started to run 13-3/8" casing.

03.05. Ran 13-3/8"casing. Circulated volume of casing. Lost returns at 60 SPM/1050 psi. Full returns at 40 SPM/650 psi. Lost circulation after 1260 strokes. Reciprocated casing and regained circulation. Pumped a LCM pill ahead of cement. Cemented casing. Lost 3,2 $m^3$ during displacement. Set seal assembly and tested same to 172 bar. Tested BOP and casing to 172 bar.

04.05. RIH with 12-1/4" BHA. Tagged cement at 1226 m. Cut mudweight to 1.40 SG. Drilled out shoe at 1252 m and made 3 m new hole. Performed leak off test eq. to 1.74 SG. Drilled to 1356 m. Dropped and retrieved survey. Drilled to 1450 m. Tight on last connection.

05.05. Dropped survey and pulled into shoe. 15 tons overpull at 1310 m. Retrieved survey. Drilled to 1498 m. Raised mudweight from 1.4. SG to 1.5 SG. Drilled to 1555 m. Dropped survey and pulled into shoe. No drag. Retrieved survey. Drilled to 1628 m.

06.05. Continued drilling to 1649 m. Dropped survey and POOH to change BHA. Installed 12-1/4" stabilizers at 60 and 90 ft. Drilled from 1649-1757 m. Took survey.

07.05. Drilled from 1757-1861 m. Dropped and retrieved survey. Drilled to 1890 m.

08.05. Drilled to 1896 m. Dropped survey and POOH to change bit. Drilled from 1896-2004 m.

09.05. Dropped and retrieved survey. Drilled from 2004-2020 m, circulated bottoms up and POOH. Changed bit and RIH. Reamed tight spots from 1864-1918 m and 1988-2020 m. Drilled to 2072 m.

10.05. Drilled to 2115 m, dropped survey and POOH.
Ran log no. 1: ISF/SONIC-GR
Run no. 2: LDT/GR.
Run no. 3: HDT/GR. Unable to pass 1925 m.

11.05. Run no. 4: RFT.
Run no. 5: CBL.
RIH w/bit and circulated. Max gas 2.13 %
POOH. No drag.
Run no. 6: CST.
Run no. 7: CST.
Prepared to run casing.

12.05. Ran 9-5/8" casing and cemented same. Washed wellhead area and set seal assembly. Tested same to 241 bar. OK. Tested BOP and casing to 241 bar.

13.05. Made up 8-1/2" BHA and RIH. Hit obstruction in BOP. POOH and found one broken tooth. Changed out two damaged 6-1/2" DC's. RIH with new bit to 2041 m. Pressure tested LPR to 241 bar. RIH to 2071 m and drilled float collar and soft cement to shoe. Drilled shoe and washed rathole to 2115 m. Circulated and decreased mudweight to 1.23 SG. Drilled to 2118 m and performed leak off test eq. to 1.76 SG. Drilled 1 m with low ROP.

14.05. POOH and changed bit (graded 7-3-1/16"). Drilled to 2183 m. Had drilling brake at 2160 m and 2173 m. Circulated for samples. Dropped survey and POOH.

15.05. Made up corebarrel and RIH. Cut core no. 1 from 2183-2202 m (sandstone becoming siltstone). Recovered 17.6 m or 95 %. RIH with new bit. Reamed and washed from 2178-2202 m. Took no weight. Drilled from 2202-2226 m.

16.05. Drilled to 2274 m. Circulated for samples at 2270 m. Drilled to 2308 m and dropped survey. Pulled into 9-5/8" shoe. Attempted to retrieve survey. Not able to get overshot for survey through jar. POOH and retrieved survey. (I.D. of 6-1/4" jar was 2-1/4", O.D. of overshot was 2-3/8". Changed to 1-11/16"). RIH with new bit.

17.05. Drilled from 2308-2403 m. Dropped survey and retrieved same in 9-5/8" shoe. Drilled from 2403-2428 m, dropped survey and POOH.

18.05. RIH w/new bit. Drilled from 2428-2526 m. Dropped and retrieved survey on bottom. Drilled to 2546 m.

19.05. Circulated for samples. Drilled from 2546-2593 m. Dropped survey and POOH. Tested BOP to 241 bar.

20.05. RIH with new bit. Drilled from 2593-2661 m. Circulated for samples, dropped survey and POOH. RIH with corebarrel.

21.05. Cut core no. 2 from 2661-2677,5 m. POOH and recovered 16 m or 97 %. Cut core no. 3 from 2677,5-2687 m. Core jammed after making connection. POOH. Had max 20 tons overpull from 2600-2520 m, and 18 tons at 2378 and 2358 m.

22.05. Recovered 9 m or 95%. RIH with bit, washed and reamed from 2682-2687 m. Drilled 8-1/2" from 2687-2706 m. Circulated for samples, dropped survey and POOH. RIH and cut core no. 4 from 2706-2711 m.

23.05. Continued cutting core to 2725 m. Recovered 19,2 m or 100 %. Had 27 tons overpull from 2625-2606 m. RIH with 8-1/2" bit and drilled from 2725-2762 m. Circulated for samples.

24.05. Drilled from 2762-2812 m. Dropped survey and pulled out to 2520 m. Retrieved survey and RIH. Drilled from 2812-2915 m. Dropped survey and pulled out to 2567 m.

25.05. Retrieved survey. RIH and drilled from 2915-2924 m. POOH for intermediate logging.
Ran ISF-BHC-MSFL-GR.
Changed dead line anchor and repaired watercooling system on draworks. RIH with new bit. Had 3 m fill on bottom. Drilled to 2937 m.

26.05. Drilled to 3019 m. Dropped survey and retrieved same at 2588 m. Tight from 2722-2683 m, 20 tons overpull. Drilled to 3038 m.

27.05. Continued drilling to 3114 m. Dropped survey and POOH. Tested BOP to 241 bar. OK.

28.05. RIH with new bit and drilled from 3114-3195 m.

29.05. Continued drilling to 3218 m. Dropped survey and retrieved same at 2810 m. Drilled to 3241 m and POOH.

30.05. RIH with new bit and drilled from 3241-3333 m.

31.05. Circulated bottoms up, dropped survey and POOH.
Ran log no. 1: ISF/SONIC/MSFL/GR.
Run no. 2: LDT/CNL/NGT.
Run no. 3: S-HDT.

01.06. Run no. 4: RFT/GR.
Run no. 5: WSS.

02.06. Run no. 6: CST/GR. Recovered 28, lost 2.
Run no. 7: CST/GR. 7 OK, lost 1, misfired 22.
Run no. 8: CST/GR. 8 OK, lost 1, misfired, 21.
Run no. 9: CBL/VDL-GR.
Run no. 10: CST/GR. Misrun, GR failed.
Run no. 11: CST/SP. 28 recovered, 1 lost, 1 empty.
Run no. 12: CST/SP. 20 OK, 6 lost, 4 misfired.

03.06. RIH with openended DP and set 5 balanced cement plugs from 3333-2600 m. Set plug no. 6 from 2250-2047 m. POOH.

04.06. RIH with bit and tagged top of cement at 2041 m. Pressure tested cement and casing to 180 bar. POOH. Set a 9-5/8" bridge plug at 550 m on second attempt. Perforated 9-5/8" casing at 320 m. Cut 9-5/8" casing at 400 m. Pulled and laid down 10 joints. Perforated 13-3/8" casing at 320 m. Cut casing at 392 m.

05.06. Pulled and laid down 9 joints. Displaced hole to seawater. Set cement plug no. 7 from 540-320 m. Pulled BOP and riser. RIH with 17-1/2" bit using guide frame and TV. Drilled cement from 320-340 m.

06.06. While waiting on cement, laid down DP and worked on BOP. Dressed off cement plug from 296-310 m. POOH.
Rig was shut down due to strike from 0800 hrs.

07.06. Strike.

08.06. Strike.

09.06. Strike.

10.06. Strike.

11.06. Strike.

12.06. Strike.

13.06. Strike.

14.06. Strike.

15.06. Strike.

16.06. Strike until 2000 hrs. Waiting on crew.

17.06. Waiting on crew. Crew arrived at 0915 hrs. At 0930 hrs, picked up cutting assembly and RIH. Cut 20" x 30" at 296 m. Attempted to pull wellhead. Max overpull 245 tons. Attempted to back out running tool. No success. Pulled several times on well head.

18.06. 20" casing came loose. Pulled out and laid down wellhead joint. Dressed cutting eq. for cutting 30" casing. Cut 30" at 295 m. Attempted to connect running tool to well head. Positioned rig to center. Made up running tool to wellhead and pulled loose with 100 tons overpull. Pulled out 30" and base plate. Divers inspected seabed with video.

19.06. Anchorhandling. Last anchor bolstered at 1200 hrs and rig in transit to 6609/7-1 for PPCoN.

# III 4 WELL AND SUBSEA SCHEMATIC
## SUBSEA ASSEMBLY

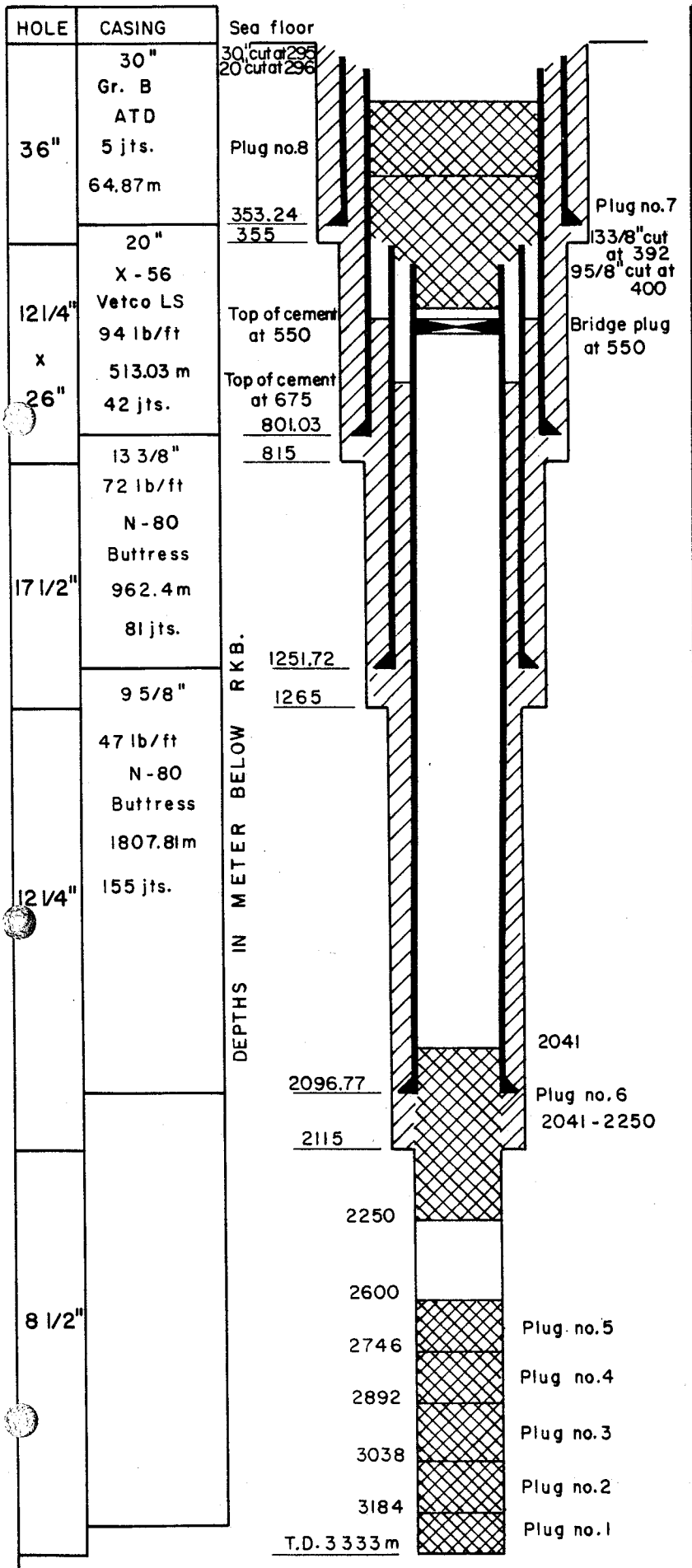
# III 4 WELLBORE SCHEMATIC 6610/7-1 Neptuno Nordraug

(NOT TO SCALE)

Statoil Den norske stats oljeselskap a.s

ORIGINAL AV: TAH
TEGNET AV: AM
DATO: 25-10-83

RKB - MSL: 25 m. WATER DEPTH: 265 m.

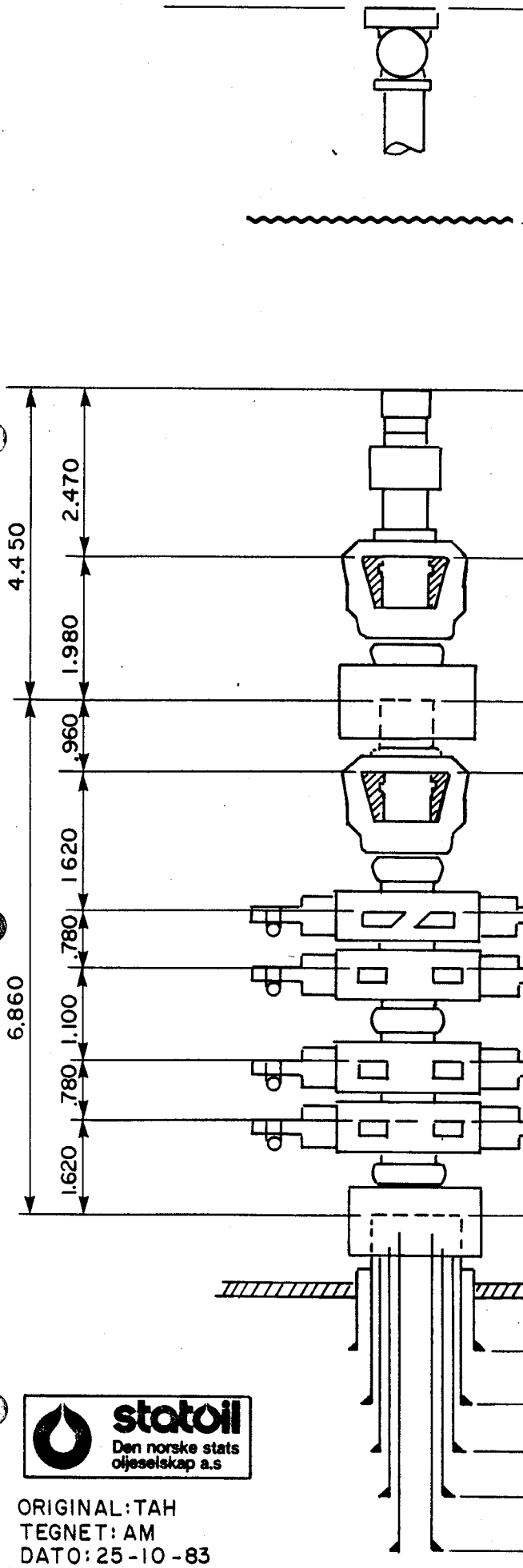



All additives are per. 100 kg. cement.

| CASING CEMENT | PLUGS/SQUEEZ |
|---|---|
| Lead Slurry: 1.56 S.G.<br>17.8 tonn "G" +<br>+ 3.55 l A-3L<br>+ 93.5 l S/W<br><br>Tail Slurry: 1.9 S.G.<br>13.2 tons "G"<br>+ 1.33 l A-7L<br>+ 42.8 l S/W | Plug No 8: 310-340m<br>10 tons "G"<br>+ 44 l S/W<br>Density 1.92 S.G. |
| Lead Slurry: 1.6 S.G.<br>10.2 tons "G"<br>+ 3.55 l A-3L<br>+ 0.22 l R-15L<br>+ 92.52 l S/W<br><br>Tail Slurry: 1.9 S.G.<br>26.4 tons "G"<br>+ 44 l S/W | Plug No 7: 340-540m<br>25.2 tons "G"<br>+ 44 l S/W<br>Density 1.92 S.G. |
| Lead Slurry: 1.56 S.G.<br>33 tons "G"<br>+ 3.55 l A-3L<br>+ 0.53 l R-15L<br>+ 92.31 l S/W<br><br>Tail Slurry: 1.9 S.G.<br>13 .6 tons "G"<br>+ 44 l F/W | |
| Slurry Composition<br>47 tons "G"<br>+ 1.78 l D-19LN<br>+ 0.89 l D-31LN<br>+ 0.36 l R-12L<br>+ 41.721 F/W | Plug No 6:<br>14.4 tons "G", 1.9 S.G.<br>+ 1.78 l D-19LN<br>+ 0.89 l D-31LN<br>+ 0.27 l R-12L<br>+ 41.8 l F/W |
| | Plug No 1-5<br>Each: 7.2 tons "G"<br>+ 1.78 l D-19LN<br>+ 0.89 l D-31LN<br>+ 0.36 l R-12L<br>+ 41.721 F/W<br>Density 1.9 S.G. |

# SUBSEA ASSEMBLY
NORDRAUG

WELL: 6610/7-1




| METER | DRILLFLOOR |
|---|---|
| 25 | SEA LEVEL |
| 276,69 | TOP BALL JOINT |
| 279,16 | UPPER ANNULAR |
| 281,14 | RISER CONN. |
| 282,10 | LOWER ANNULAR |
| 283,72 | SHEAR/BLIND RAM |
| 284,5 | UPPER RAM |
| 285,6 | MIDDLE RAM |
| 286,38 | LOWER RAM |
| 288 m | TOP WELLHEAD |
| 290 | SEA BOTTOM |
| 353,24 | 30" SHOE |
| 801,03 | 20" SHOE |
| 1251,72 | 13 3/8" SHOE |
| 2097,77 | 9 5/8" SHOE |
| 3333 m | 6" HOLE |

statoil
Den norske stats oljeselskap a.s

ORIGINAL: TAH
TEGNET: AM
DATO: 25-10-83

# III 5 FORMATION INTEGRITY TESTS

statoil

# FORMASJONSSTYRKETEST

Dato: 28/4.83

Brønn nr.: 6610/7-1 **Dybde:** Brønn: 818m Foring: 80 1m Test: 801m

Fartøy: NORDRAUG **Høyde R.K.B.:** Over vannfl.: 25m Over sjøb.: 290m

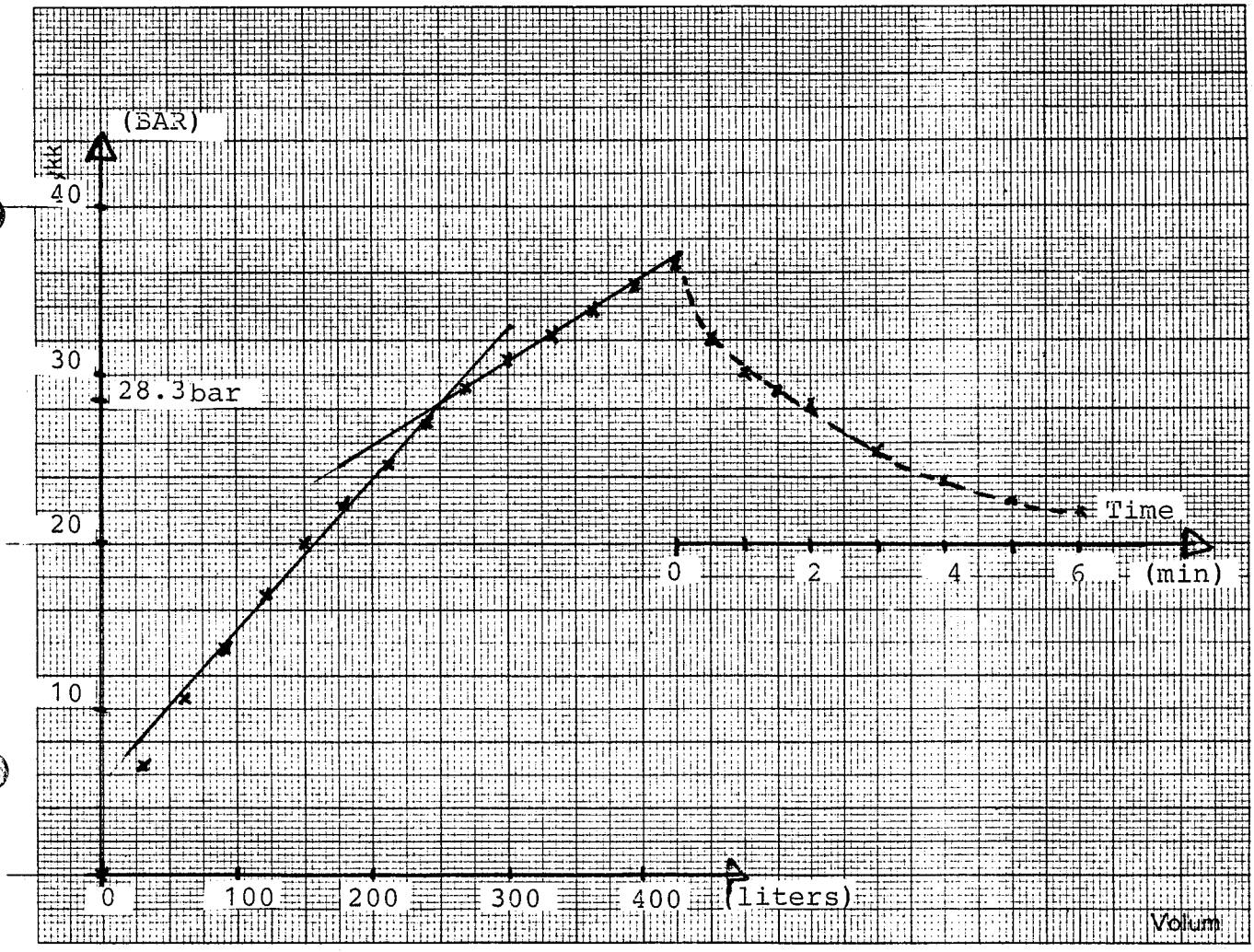
**Foring:** Diam.: 20" Tyngde: 94 lb/ft Grad: X-56 Maks. trykk: 152 bar

**Boreslam:** Tetthet: 1.10 Vis: 32 P.V.: 5 Y.P.: 12 Filt: - Gel.: 4/10

**Pumpe:** Type: BJ Kapasitet: 3.0261/ST Vol./tidsenh.: 180 l/min Tilb.str.: 191 l

Antatt styrke: 1.53 S.G. Obs. spr. trykk: 28.3 bar Ekv. formasj. styrke: 1.46

| Volum/tid | Trykk | Volum/tid | Trykk | Volum/tid | Trykk | Anmerkninger |
|---|---|---|---|---|---|---|
| 30 | 6.5 | 272 | 29.3 | 1 min | 30.3 | PUMP RATE: 60 SPM |
| 61 | 10.7 | 303 | 31 | 2 min | 28.3 | OR 182 l/min |
| 91 | 13.8 | 333 | 32.4 | 3 min | 25.5 | TEST DOWN ANNULUS |
| 121 | 16.9 | 363 | 33.8 | 4 min | 23.8 | |
| 151 | 20 | 393 | 35.5 | 5 min | 22.7 | PUMPED 424 l |
| 182 | 22.4 | 424 | 36.5 | 6 min | 22 | BLED BACK: 191 l |
| 212 | 24.8 | | | | | Sign.: H. Telle |
| 242 | 27.2 | | | | | |



statoil

# FORMASJONSSTYRKETEST

Dato: 4/5-83

Brønn nr.: 6610/7-1 **Dybde:** Brønn: 1268m Foring: 1252 Test: 1252m

Fartøy: NORDRAUG **Høyde R.K.B.:** Over vannfl.: 25m Over sjøb.: 290m

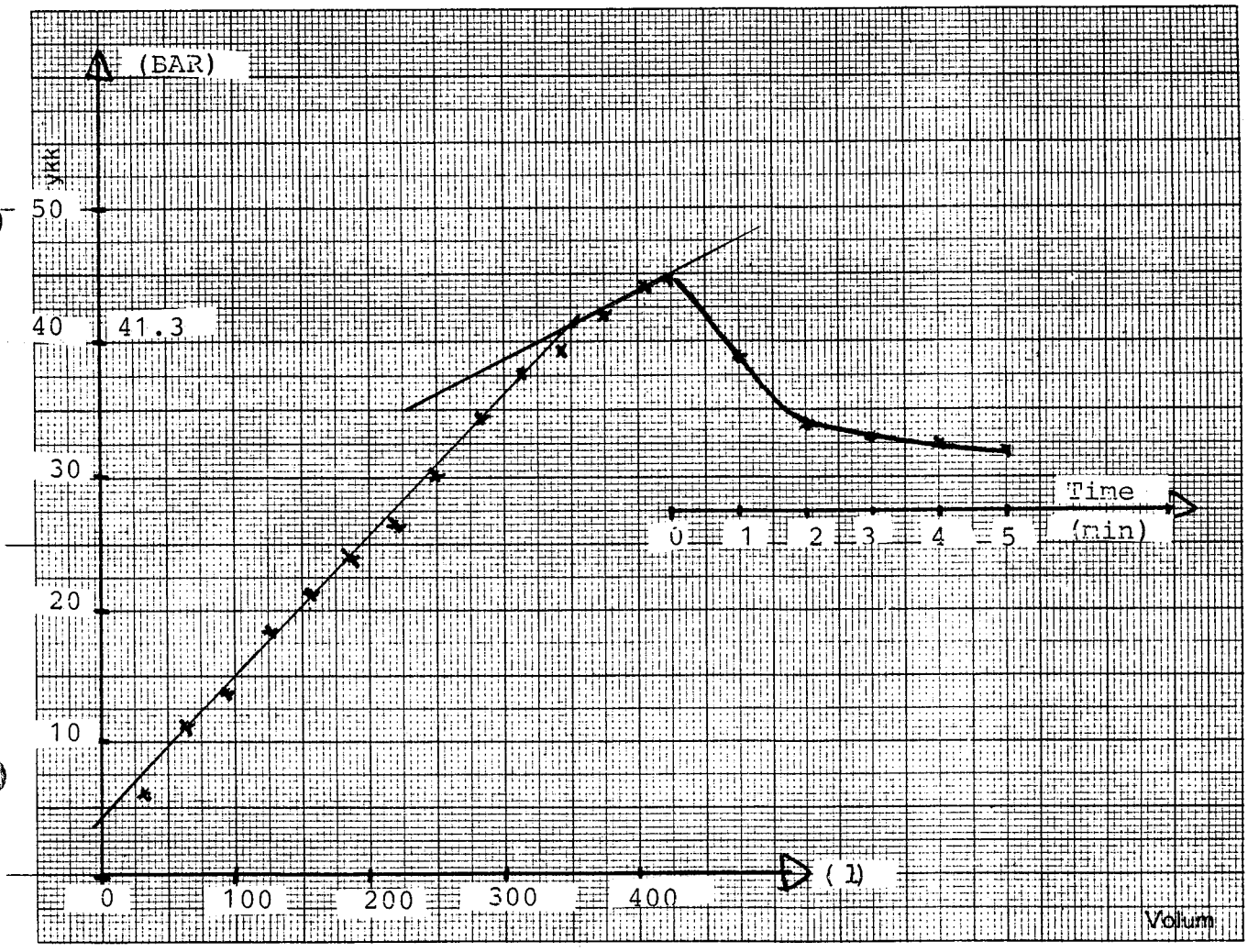
**Foring:** Diam.: 13 3/8" Tyngde: 72 lb/ft Grad: N-80 Maks. trykk: 371 bar

**Boreslam:** Tetthet: 1.4 S.G. Vis: 45 P.V.: 15 Y.P.: 13 Filt: 10 Gel.: 12/65

**Pumpe:** Type: BJ Kapasitet: 3.12 l/ST Vol./tidsenh.: 40 l/min Tilb.str.: 120 l

Antatt styrke: 1.65 S.G. Obs. spr. trykk: 41.3 bar Ekv. formasj. styrke: 1.74 S.G.

| Volum/tid | Trykk | Volum/tid | Trykk | Volum/tid | Trykk | Anmerkninger |
|---|---|---|---|---|---|---|
| 31.2 | 6.2 | 280.8 | 34.5 | 1 min | 39 | PUMPED 420 l |
| 62.4 | 11 | 312 | 37.2 | 2 min | 34 | BLED BACK 120 l |
| 93.6 | 13.8 | 343.2 | 39.3 | 3 min | 33 | |
| 124.8 | 18.6 | 374.4 | 42.1 | 4 min | 32.5 | |
| 156 | 21.4 | 405.6 | 44.1 | 5 min | 32 | |
| 187.2 | 24.1 | 421.2 | 44.8 | | | |
| 218.4 | 26.9 | | | | | Sign.: Ødegård/Telle |
| 249.6 | 30.3 | | | | | |



statoil

# FORMASJONSSTYRKETEST

Dato: 13/5-83

Brønn nr.: 6610/7-1 **Dybde:** Brønn: 2118m Foring: 2097m Test: 2097m

Fartøy: NORDRAUG **Høyde R.K.B.:** Over vannfl.: 25 Over sjøb.: 290m

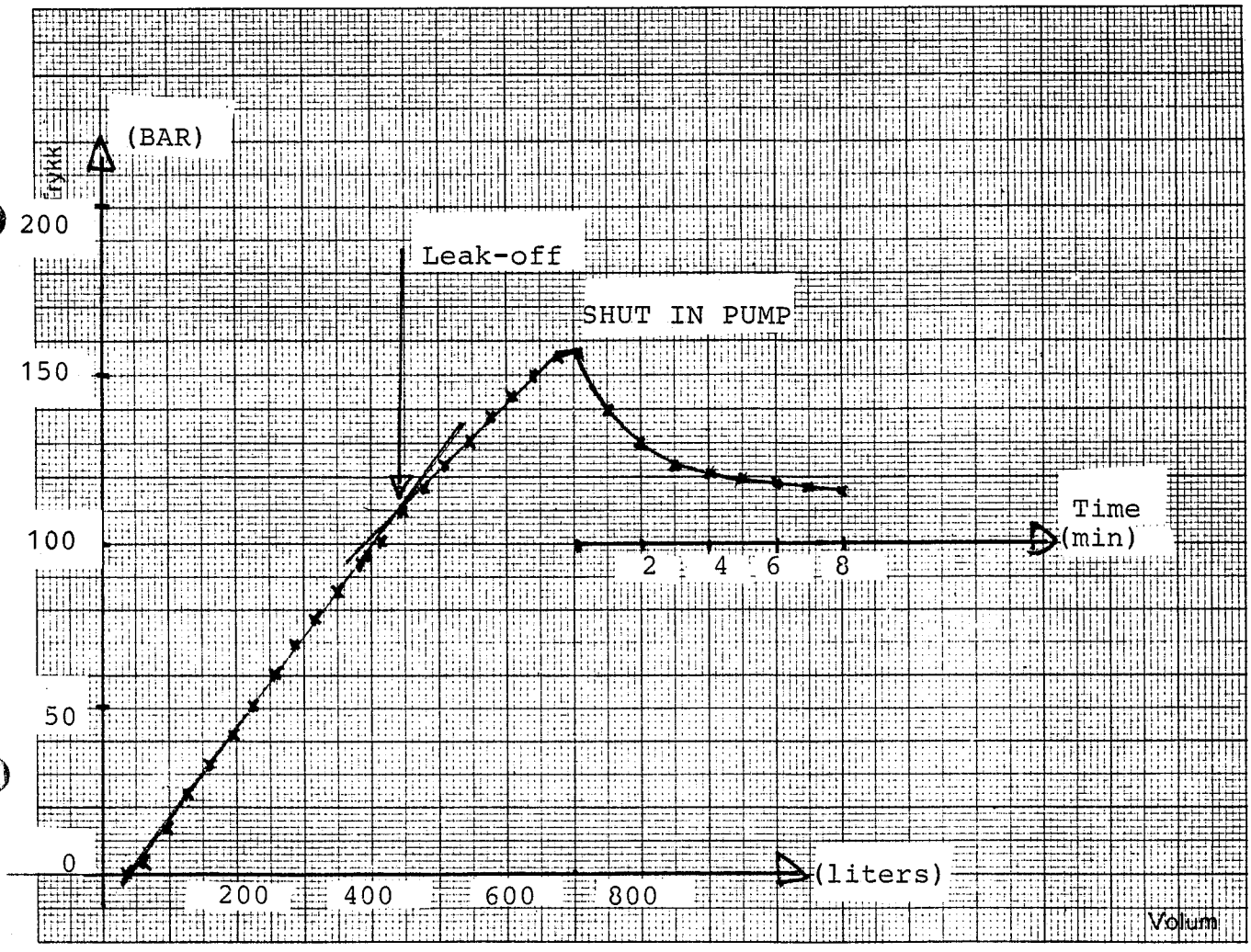
**Foring:** Diam.: 9 5/8" Tyngde: 47 lb/ft Grad: N-80 Maks. trykk: 474 bar

**Boreslam:** Tetthet: 1.23 S.G Vis: 40 P.V.: 10 Y.P.: 10 Filt: 10.5 Gel.: 4/32

**Pumpe:** Type: BJ Kapasitet: 3.2 l/ST Vol./tidsenh.: 80 l/min Tilb.str.: 453 l

Antatt styrke: 1.85 S.G. Obs. spr. trykk: 109 bar Ekv. formasj. styrke: 1.76 S.G.

| Volum/~~incl~~ | Trykk | Volum/~~incl~~ | Trykk | Volum/~~incl~~ | Trykk | Anmerkninger |
|---|---|---|---|---|---|---|
| 32 | 0 | 288 | 69 | 544 | 131 | PUMPED 731 l |
| 64 | 4.1 | 320 | 77.6 | 576 | 138 | BLED BACK 453 l |
| 96 | 13.8 | 352 | 86.2 | 608 | 143 | |
| 128 | 24.1 | 384 | 94.8 | 640 | 150 | |
| 160 | 33.1 | 416 | 102.1 | 672 | 155 | |
| 192 | 42.1 | 448 | 110.3 | 704 | 155.2 | |
| 224 | 50.7 | 480 | 117.2 | | | Sign.: Strand/Tolma |
| 256 | 60 | 512 | 124.1 | | | |



III 6 RIG TIME DISTRIBUTION

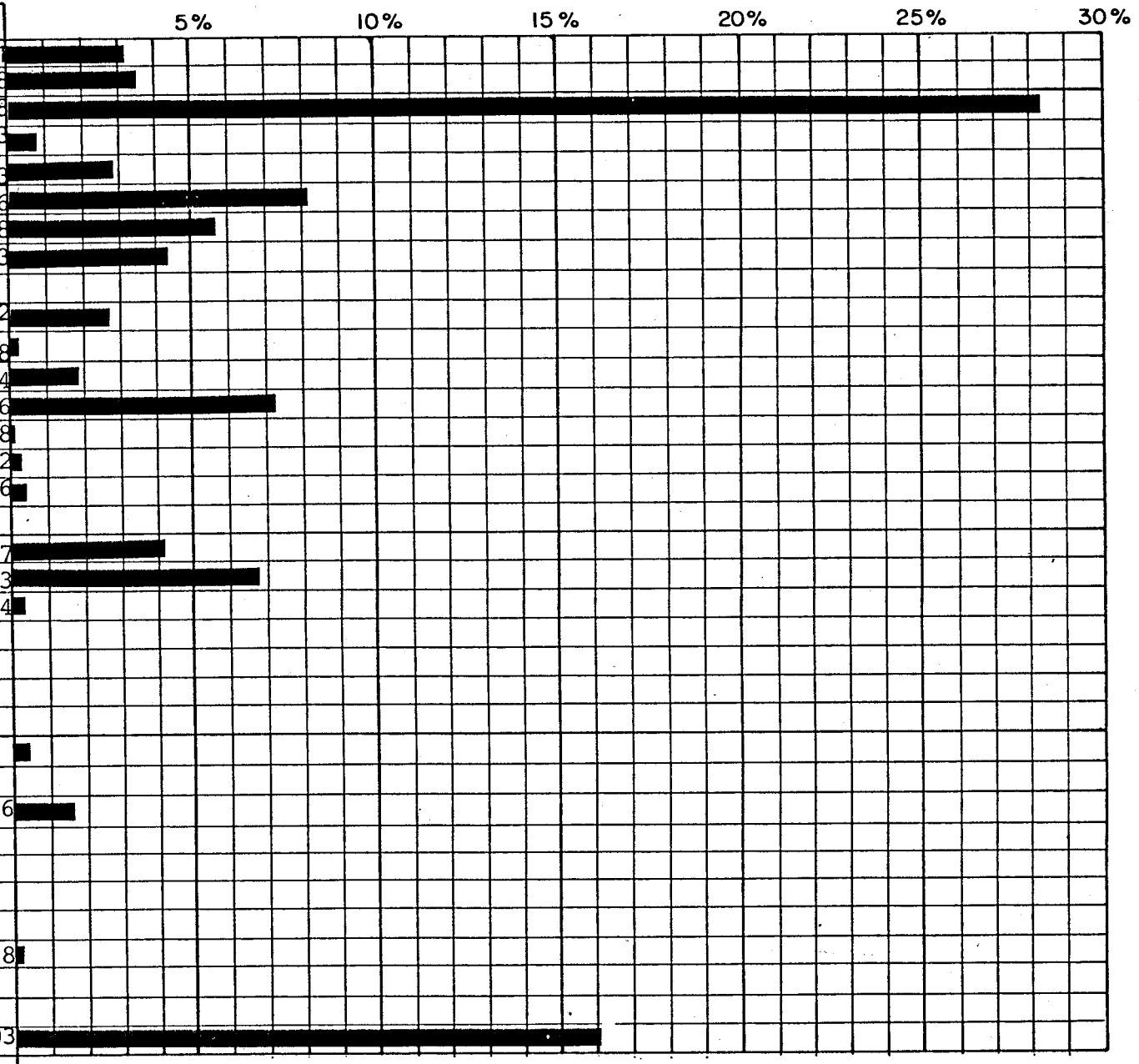
DRILLING TIME V.S. DEPTH

DRILLING COST V.S. DEPTH

# RIG TIME DISTRIBUTION FOR WELL 6610/7-1

RIG: NORDRAUG

| | | HRS | % |
|---|---|---|---|
| | Moving | 52 | 3.21 |
| | Mooring | 58 | 3.58 |
| Drilling operation | Efficient drilling | 443 | 27.38 |
| | Other drilling | 13.5 | 0.83 |
| | Hole opening | 47.5 | 2.93 |
| | Regular tripping | 132 | 8.16 |
| | Casing and cementing | 93.5 | 5.78 |
| | Sub sea eq. and BOP | 70 | 4.33 |
| | Abnormal press. detection | | |
| | Cond. and circ. | 44 | 2.72 |
| | Reaming | 4.5 | 0.28 |
| | Directional survey | 31.5 | 1.94 |
| | Plugging | 117.5 | 7.26 |
| | Formation leak-off test | 3 | 0.18 |
| | Maintenance | 3.5 | 0.22 |
| | Other | 7.5 | 0.46 |
| | | | |
| Formation Evaluation | Coring | 67.5 | 4.17 |
| | El. logging | 110.5 | 6.83 |
| | Circ. for samples | 5.5 | 0.34 |
| | RFT | | |
| | Production testing | | |
| | Other | | |
| | | | |
| Downtime | Rig repairs | 6.5 | 0.4 |
| | Rig moving | | |
| | Waiting on weather | 28.5 | 1.76 |
| | Sub sea eq. and BOP | | |
| | Fishing | | |
| | Lost circulation | | |
| | Well control | | |
| | Hole problems | 3 | 0.18 |
| | Formation evaluation | | |
| | Diving | | |
| | Other | 275.5 | 17.03 |
| TOTAL | | 161 8 | 100% |



# WELL 6610/7-1

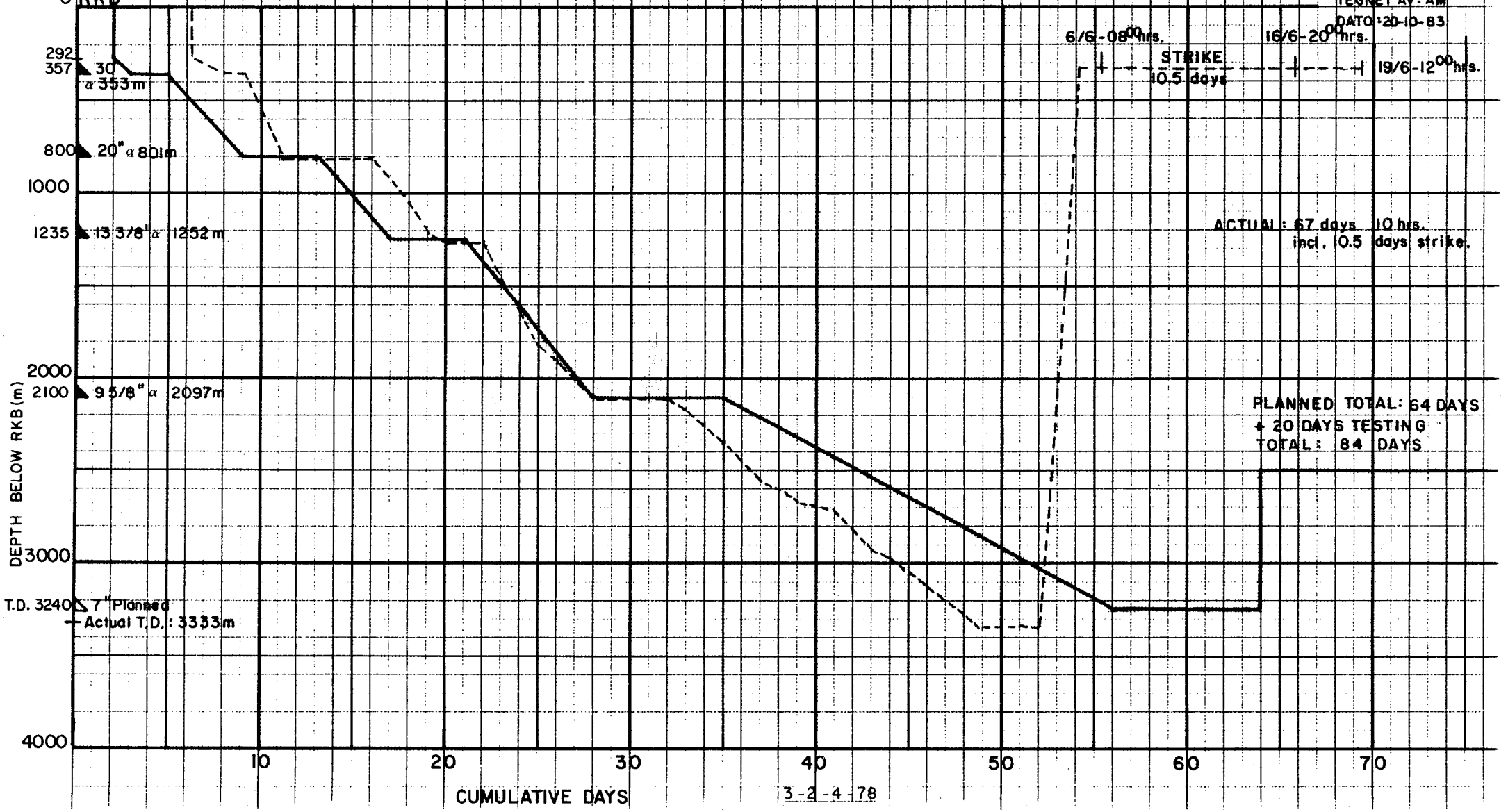
## DRILLING TIME V.S. DEPTH.

RIG: NEPTUNO NORDRAUG

LEFT 34/10-16, 15-4. 02[10] hrs.

FINISHED WELL 19-6-83, 1200 hrs.

ORIGINAL AV: TAN
TEGNET AV: AM
DATO: 20-10-83




3-2-4-78

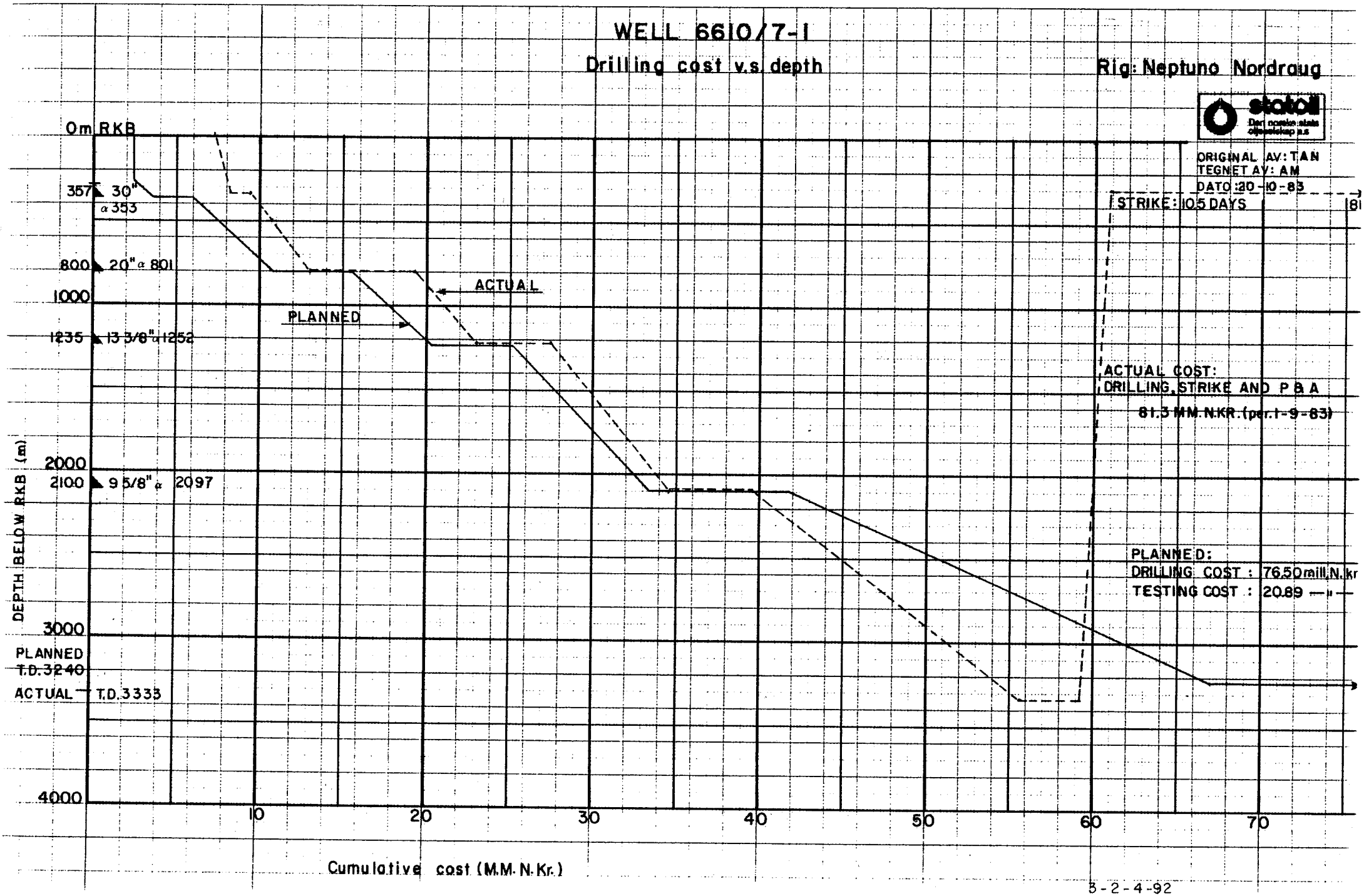
# WELL 6610/7-1

## Drilling cost v.s. depth

Rig: Neptuno Nordraug

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Den norske stats oljeselskap a.s

ORIGINAL AV: TAN
TEGNET AV: AM
DATO: 20-10-83




3-2-4-92

# III 7 BIT RECORD AND LITHOLOGY COLUMN

statoil

# BORKRONEDATA

Brønn nr.: 6610/7-1

NORDRAUG

| Nr. | B. k. Nr. | Diam. | Fabr. | Type | Serie no. | Dyser 1/32" | Dybde ut | Fremdrift | Rot. tid | Total rot.tid | Bore-hast. | V.p.b. | O.p.m. | Pumpe | | | Tilstand | | | Anmerkninger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | Trykk | V.grad | v/t | T | B | G | |
| 1 | 1 | 26" | SMT | DSJ | BR5674 | 3 x 22 | 355 | 65 | 17,8 | 17,8 | 3.65 | 5-7 | 70 | 70 | 0,97 | 3090 | 2 | 2 | I | |
| 2 | IRR | 26" | | | | | DRILLED CMT FM 345m TO 355m | | | | | | | | | | 2 | 2 | I | |
| 3 | 2 | 12 1/4 | SMT | SDS | XB1207 | 2x16 1x20 | 815 | 460 | 13,95 | 31.75 | 33,0 | 2-7 | 150 | 172 | 0.97 | 3300 | 5 | 4 | I | Pilothole |
| 4 | 3 | 12 1/4 | HTC | X3A | 220 MK | 3 x 12 | USED AS GUIDE BELOW 17 1/2 H.O. & 26" UR | | | | | | | | | 3900 | 2 | 2 | I | |
| 5 | 4 | 17 1/2 | SMT | DSJ | XA2971 | 3 x 18 | 1016 | 201 | 18.97 | 50.72 | 10.6 | 4-5 | 150 | 172 | 0.97 | 3290 | 4 | 5 | I | |
| 6 | 5 | 17 1/2 | HTC | X3A | SE 462 | 3 x 18 | 1260 | 244 | 12.54 | 63.26 | 19.5 | 10 | 150 | 207 | 0.97 | 3207 | 1 | 1 | I | |
| 7 | 5RR | 17 1/2 | HTC | X3A | SE 462 | 3 x 18 | 1265 | 5 | 0.52 | 63.78 | 10 | 9.5 | 150 | 207 | 0.97 | 3080 | 1 | 2 | I | |
| 8 | 6 | 12 1/4 | HTC | X3A | PZ 713 | 3 x 14 | 1649 | 384 | 26.18 | 89.96 | 14.67 | 6.5 | 115 | 207 | 0.97 | 2270 | 3 | 5 | I | |
| 9 | 7 | 12 1/4 | SMT | SDT | CP7075 | 3 x 14 | 1896 | 247 | 31.57 | 121.53 | 7.82 | 14/18 | 150/120 | 208 | 0.97 | 2220 | 5 | 7 | 1/4 | Up to 5%purite fm. 1870m. |
| 10 | 8 | 12 1/4 | SMT | SDGH | XB5812 | 3 x 14 | 2020 | 124 | 18.88 | 140.41 | 6.57 | 14/18 | 130/110 | 208 | 0.97 | 2200 | 5 | 5 | 1/8 | |
| 11 | 9 | 12 1/4 | HTC | XDG | 626xL | 3 x 14 | 2115 | 95 | 17.73 | 158.14 | 5.36 | 19/21 | 90 | 208 | 0.97 | 2108 | 4 | 7 | 1/16 | B.T. |
| 12 | 9RR | 12 1/4 | HTC | XDG | 626xL | 3 x 14 | | WIPER TRIP | | | | | | | | | | | | |
| 13 | 10 | 8 1/2 | HTC | OSC | 719 VK | 3 x 12 | - | DAMAGED IN WH. ON WAY IN | | | | | | | | | 2 | 1 | I | B.T. |
| 14 | 11 | 8 1/2 | SMT | SVH | BT5741 | 3 x 12 | 2119 | 4 | 2.96 | 161.10 | 1.4 | 8-12 | 60/120 | 193 | 0.97 | 1738 | 7 | 3 | 1/16 | |
| 15 | 12 | 8 1/2 | HTC | J-22 | 808 PS | 3 x 12 | 2183 | 64 | 12.58 | 128.68 | 5.09 | 19.5 | 62 | 195 | 0.97 | 1740 | 4 | 3 | I | B.T. |
| 16 | 13 | 8 1/2 | J.K. Smit | BO-20 | 51764 | - | 2201.5 | 18.5 | 5.61 | 134.29 | 3.3 | 8 | 90 | 75.8 | 0.97 | 900 | 5% | Worn | | Core no 1. |
| 17 | 14 | 8 1/2 | SMT | SVH | BT5727 | 3 x 12 | 2308 | 106.5 | 18.46 | 152.75 | 5.76 | 18/20 | 108 | 204 | 0.97 | 1720 | 2 | 5 | I | |
| 18 | 15 | 8 1/2 | HTC | XDG | 679 ML | 3 x 11 | 2428 | 120 | 17.9 | 170.65 | 6.7 | 17/19 | 110/100 | 200 | 0.97 | 1500 | 3 | 7 | I | Cone no 1 locked |
| 19 | 16 | 8 1/2 | HTC | J 4 | RZ 575 | 3 x 11 | 2593 | 165 | 29.5 | 200.15 | 5.5 | 18/20 | 85 | 207 | 0.97 | 1515 | 4 | 4 | I | |
| 20 | 17 | 8 1/2 | SMT | F 2 | C 18021 | 3 x 11 | 2661 | 68 | 11.19 | 211.34 | 6.1 | 18 | 95 | 207 | 0.97 | 1515 | 1 | 1 | I | Pulled to cut core |

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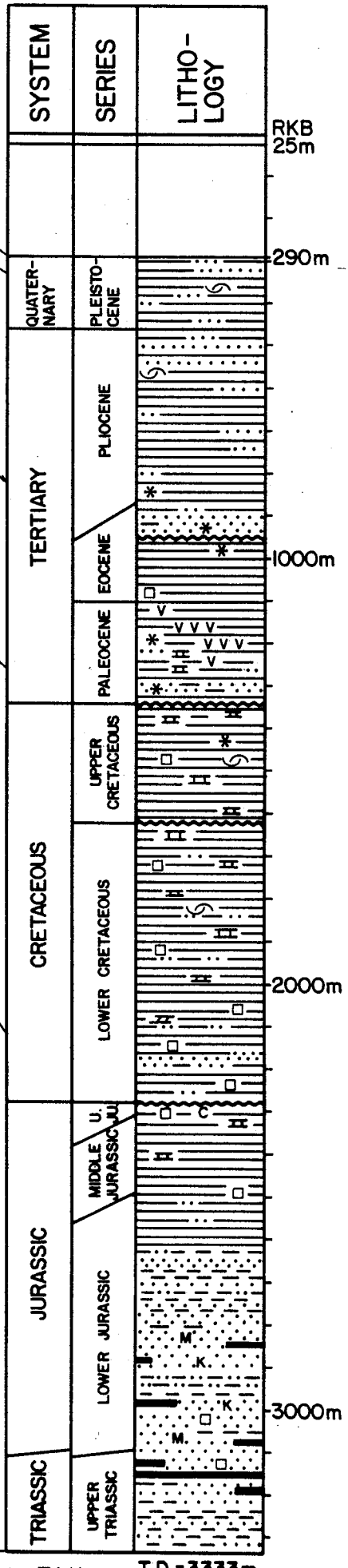
# BORKRONEDATA

Brønn nr.: 6610/7-1
NORDRAUG

| Nr. | B. k. Nr. | Diam. | Fabr. | Type | Serie no. | Dyser 1/32" | Dybde ut | Fremdrift | Rot. tid | Total rot.tid | Bore-hast. | V.p.b. | O.p.m. | Pumpe | | | Tilstand | | | Anmerkninger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | Trykk | V.grad | v/t | T | B | G | |
| 21 | 13RR | 8 1/2 | J.K. Smit | BO-20 | 51764 | | 2677.5 | 16.5 | 3.9 | 215.24 | 4.23 | 8-10 | 95 | 86.2 | 0.97 | 927 | | | | 15% WEAR |
| 22 | 13RR | 8 1/2 | " | " | " | | 2687 | 9.5 | 7.52 | 222.76 | 1.26 | 8-12 | 70-100 | 86.2/ 100 | 0.97 | 927/ 1190 | | | | 20% WEAR |
| 23 | 18 | 8 1/2 | HTC | J 44 | AA 167 | 3 x 11 | 2706 | 19 | 8.44 | 231.2 | 2.25 | 18-20 | 50-60 | 203 | 0.97 | 1520 | 2 | 2 | I | Pulled to core |
| 24 | 19 | 8 1/2 | J.K. Smit | BO-20 | 51567 | | 2725 | 19 | 10.24 | 241.44 | 1.87 | 9-11 | 80-100 | 95/107 | 0.97 | 1030/ 1170 | | | | 5% WEAR |
| 25 | 20 | 8 1/2 | HTC | J-22 | 809 PS | 3 x 12 | 2924 | 199 | 25.45 | 266.89 | 7.82 | 16 | 80 | 203 | 0.97 | 1648 | 3 | 5 | 1/8 | 3 broken teeth |
| 26 | 21 | 8 1/2 | SMT | F-2 | XB1092 | 3 x 12 | 3114 | 190 | 34.73 | 301.62 | 5.47 | 16 | 90 | 206 | 0.97 | 1680 | 5 | 6 | 1/8 | |
| 27 | 22 | 8 1/2 | SMT | F-2 | XB0976 | 3 x 12 | 3241 | 127 | 20.6 | 332.22 | 4.15 | 13-16 | 60-90 | 206 | 0.97 | 1680 | 3 | 6 | I | |
| 28 | 23 | 8 1/2 | HTC | XDG | 685 NL | 3 x 11 | 3333 | 92 | 20.26 | 352.48 | 4.54 | 17-21 | 90-110 | 206 | 0.97 | 1480 | 6 | 7 | 1/8 | |

# III 7. BIT SEQUENCE AND LITHOLOGY COLUMN - WELL 6610/7-1

| BIT NO. | TYPE | DEPTH OUT(m) | ROP m/hr | HOURS | HOLE SIZE |
|---|---|---|---|---|---|
| 1 | DSJ | 355 | 3.65 | 17.8 | 36" |
| 2 | SDS | 815 | 33 | 13.95 | 12 1/4" |
| 3 | 26"U/R | 586 | 15.3 | 15.13 | 26" |
| " | 26"U/R | 812 | 14.6 | 15.45 | 26" |
| 4 | DSJ | 1016 | 10.6 | 18.97 | 17 1/2" |
| 5 | X3A | 1260 | 19.5 | 12.54 | 17 1/2" |
| 5RR | X3A | 1265 | 10 | 0.52 | 17 1/2" |
| 6 | X3A | 1649 | 14.67 | 26.18 | 12 1/4" |
| 7 | SDT | 1896 | 7.82 | 31.57 | 12 1/4" |
| 8 | SDGH | 2020 | 6.57 | 18.88 | 12 1/4" |
| 9 | XDG | 2115 | 5.36 | 17.73 | 12 1/4" |
| 12 | J-22 | 2183 | 5.09 | 12.58 | 8 1/2" |
| 13 | BO-20 | 2201.5 | 3.3 | 5.61 | Core1 |
| 14 | SVH | 2308 | 5.76 | 18.46 | 8 1/2" |
| 15 | XDG | 2428 | 6.7 | 17.9 | 8 1/2" |
| 16 | J-4 | 2593 | 5.5 | 29.5 | 8 1/2" |
| 17 | F-2 | 2661 | 6.1 | 11.19 | 8 1/2" |
| 13RR | BO-20 | 2677.5 | 4.23 | 3.9 | Core2 |
| 13RR | BO-20 | 2687 | 1.26 | 7.52 | Core3 |
| 18 | J-44 | 2706 | 2.25 | 8.44 | 8 1/2" |
| 19 | BO-20 | 2725 | 1.87 | 10.24 | Core4 |
| 20 | J-22 | 2924 | 7.82 | 25.45 | 8 1/2" |
| 21 | F-2 | 3114 | 5.47 | 34.73 | 8 1/2" |
| 22 | F-2 | 3241 | 4.15 | 20.6 | 8 1/2" |
| 23 | XDG | 3333 | 4.54 | 20.26 | 8 1/2" |

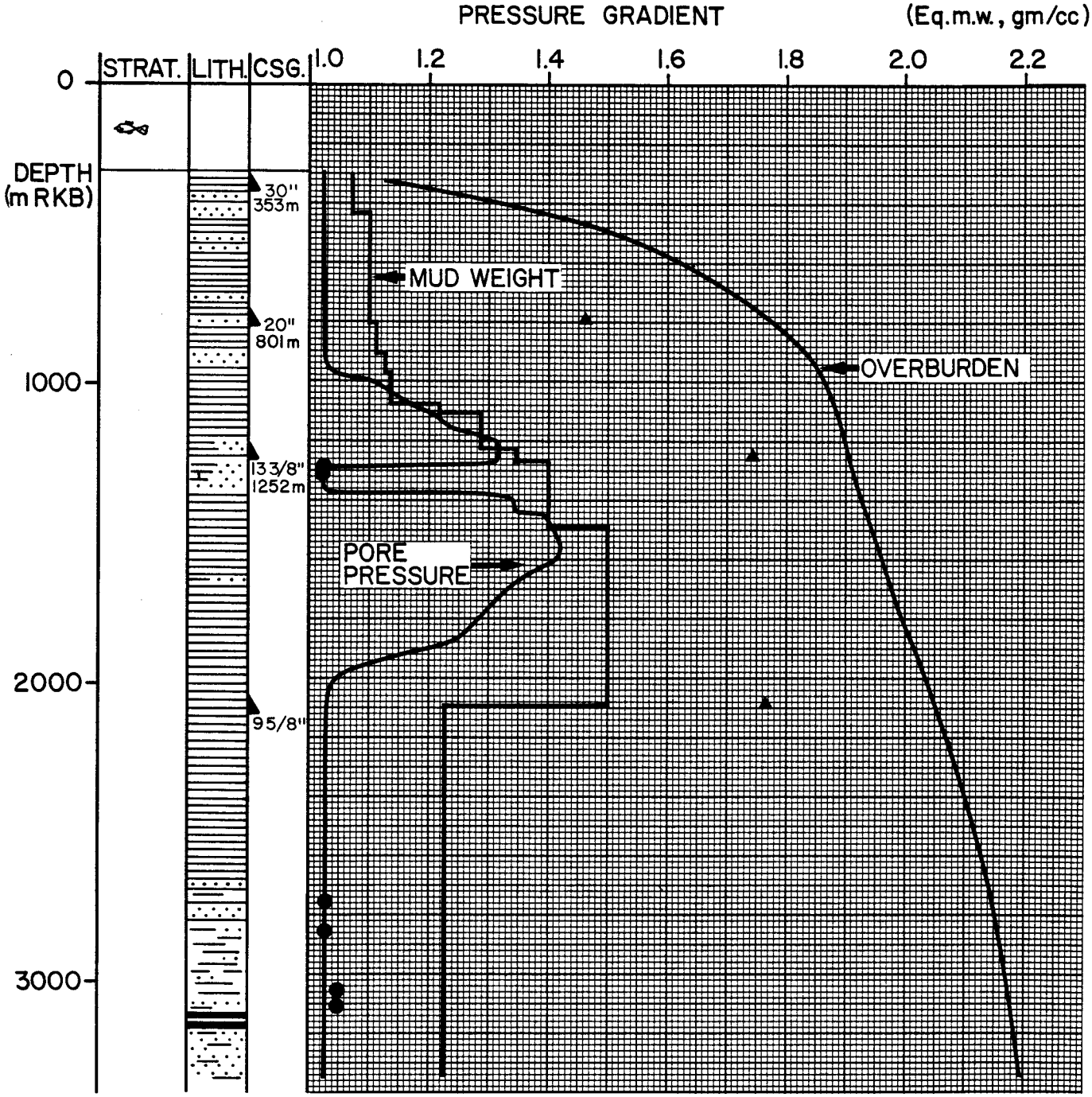



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Den norske stats oljeselskap a.s

ORIGINAL: TAH
TEGNET: AM
DATO: 24-11-83

# III 8 PRESSURE PROFILES

# 6610/7-1 PRESSURE COMPOSITE PLOT




● : RFT
▲ : LOT
RIG: NEPTUNO NORDRAUG
RKB: 25 m
SPUD DATE: 18. APRIL 1983
COMPLETED:
WATER DEPTH: 265 m
T.D.:

# III 9 SURVEYS

STATOIL Slot :
6610/7-1 Well : 6610/7-1
NORTH SEA, NORWEGIAN SECTOR PBHL : N 0 0 E

Our ref : S04721.0ST
Date printed : 30-NOV-83

| Measured Depth | Drift Angle D M | Drift Direction D M | Course Length | Vertical Depth | Vertical Section | RECTANGULAR COORDINATES | Dogleg Severity |
|---|---|---|---|---|---|---|---|
| 290.00 | 0 0 | N 0 0 E | 0.00 | 290.00 | 0.00 | 0.00 N 0.00 E | 0.00 |
| 811.00 | 3 45 | N 72 0 E | 521.00 | 810.63 | 5.27 | 5.27 N 16.21 E | 0.22 |
| 814.00 | 3 45 | N 13 0 E | 3.00 | 813.62 | 5.39 | 5.39 N 16.32 E | 36.91 |
| 918.00 | 3 45 | N 12 0 E | 104.00 | 917.40 | 12.03 | 12.03 N 17.80 E | 0.02 |
| 1016.00 | 1 0 | N 50 0 E | 98.00 | 1015.31 | 15.72 | 15.72 N 19.12 E | 0.93 |
| 1119.00 | 0 30 | N 10 0 E | 103.00 | 1118.30 | 16.74 | 16.74 N 19.89 E | 0.20 |
| 1223.00 | 0 0 | N 6 0 E | 104.00 | 1222.30 | 17.19 | 17.19 N 19.96 E | 0.14 |
| 1257.00 | 0 45 | N 57 0 E | 34.00 | 1256.30 | 17.31 | 17.31 N 20.15 E | 0.66 |
| 1351.00 | 0 45 | N 10 0 W | 94.00 | 1350.29 | 18.25 | 18.25 N 20.56 E | 0.26 |
| 1446.00 | 0 30 | N 40 0 W | 95.00 | 1445.29 | 19.18 | 19.18 N 20.19 E | 0.13 |
| 1550.00 | 0 45 | S 63 0 W | 104.00 | 1549.28 | 19.22 | 19.22 N 19.29 E | 0.23 |
| 1645.00 | 0 30 | S 4 0 E | 95.00 | 1644.28 | 18.52 | 18.52 N 18.76 E | 0.23 |
| 1752.00 | 0 30 | S 38 0 E | 107.00 | 1751.27 | 17.69 | 17.69 N 19.08 E | 0.08 |
| 1857.00 | 0 45 | S 38 0 E | 105.00 | 1856.27 | 16.78 | 16.78 N 19.79 E | 0.07 |
| 1892.00 | 0 45 | S 31 0 E | 35.00 | 1891.27 | 16.41 | 16.41 N 20.05 E | 0.08 |
| 2000.00 | 0 30 | S 76 0 E | 108.00 | 1999.26 | 15.69 | 15.69 N 20.87 E | 0.15 |
| 2111.00 | 1 15 | N 50 0 E | 111.00 | 2110.25 | 16.35 | 16.35 N 22.27 E | 0.28 |
| 2179.00 | 1 30 | S 75 0 E | 68.00 | 2178.23 | 16.60 | 16.60 N 23.69 E | 0.57 |
| 2294.00 | 2 0 | S 82 0 E | 115.00 | 2293.18 | 15.93 | 15.93 N 27.13 E | 0.14 |
| 2392.00 | 0 45 | S 75 0 E | 98.00 | 2391.15 | 15.52 | 15.52 N 29.45 E | 0.39 |
| 2417.00 | 0 45 | S 35 0 E | 25.00 | 2416.14 | 15.35 | 15.35 N 29.70 E | 0.62 |
| 2515.00 | 1 15 | S 55 0 E | 98.00 | 2514.13 | 14.21 | 14.21 N 30.94 E | 0.18 |
| 2582.00 | 1 15 | S 58 0 E | 67.00 | 2581.11 | 13.40 | 13.40 N 32.16 E | 0.03 |
| 2650.00 | 1 0 | S 26 0 E | 68.00 | 2649.10 | 12.47 | 12.47 N 33.05 E | 0.29 |
| 2695.00 | 0 45 | S 0 0 W | 45.00 | 2694.10 | 11.83 | 11.83 N 33.22 E | 0.31 |
| 2800.00 | 0 15 | S 67 0 W | 105.00 | 2799.09 | 11.05 | 11.05 N 33.01 E | 0.20 |

Continued on next page ...

STATOIL
6610/7-1
NORTH SEA, NORWEGIAN SECTOR

Slot :
Well : 6610/7-1
PBHL : N 0 0 E

Our ref : S04721.0ST
Date printed : 30-NOV-83

| Measured Depth | Drift Angle D M | Drift Direction D M | Course Length | Vertical Depth | Vertical Section | RECTANGULAR COORDINATES | Dogleg Severity |
|---|---|---|---|---|---|---|---|
| 2904.00 | 0 15 | S 72 0 W | 104.00 | 2903.09 | 10.89 | 10.89 N 32.59 E | 0.01 |
| 3008.00 | 0 45 | N 56 0 W | 104.00 | 3007.09 | 11.20 | 11.20 N 31.81 E | 0.18 |
| 3103.00 | 0 45 | N 38 0 W | 95.00 | 3102.08 | 12.04 | 12.04 N 30.91 E | 0.07 |
| 3207.00 | 0 30 | N 53 0 W | 104.00 | 3206.07 | 12.85 | 12.85 N 30.13 E | 0.09 |
| 3322.00 | 0 45 | N 5 0 W | 115.00 | 3321.07 | 13.90 | 13.90 N 29.66 E | 0.15 |

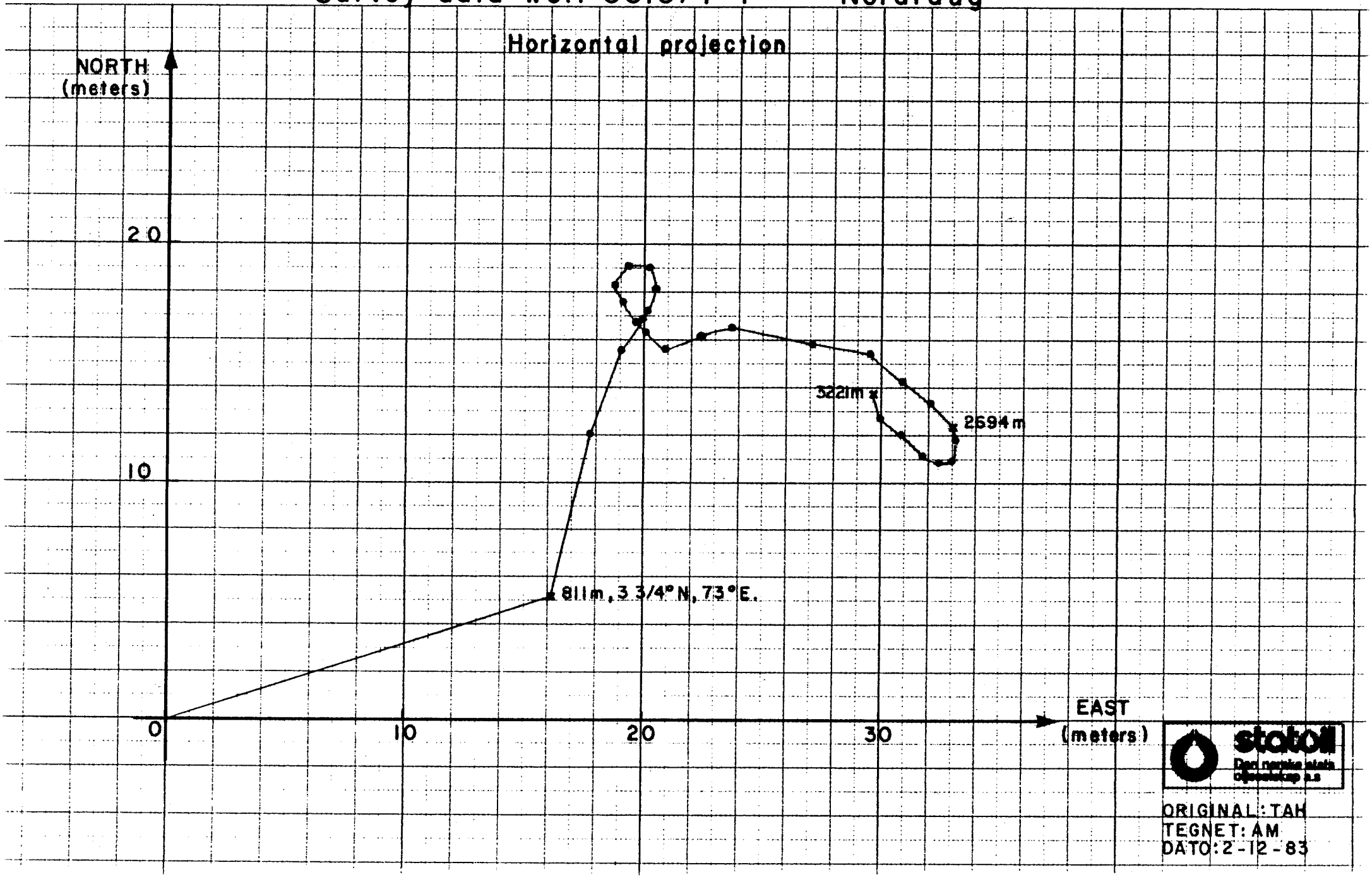
Calculation Method : Minimum curvature
Report Units : Metres
Slot Coordinates : 0.00 N 0.00 E
Bottom hole Location : Referenced to Centre
Distance : 32.76
Direction : N 64 53 E

## SURVEY RUN INFORMATION

MAGNETIC SINGLE SHOTS 811-3322 MT.MD.

# Survey data well 6610/7-1 Nordraug

## Horizontal projection




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Den norske stats oljeselskap a.s

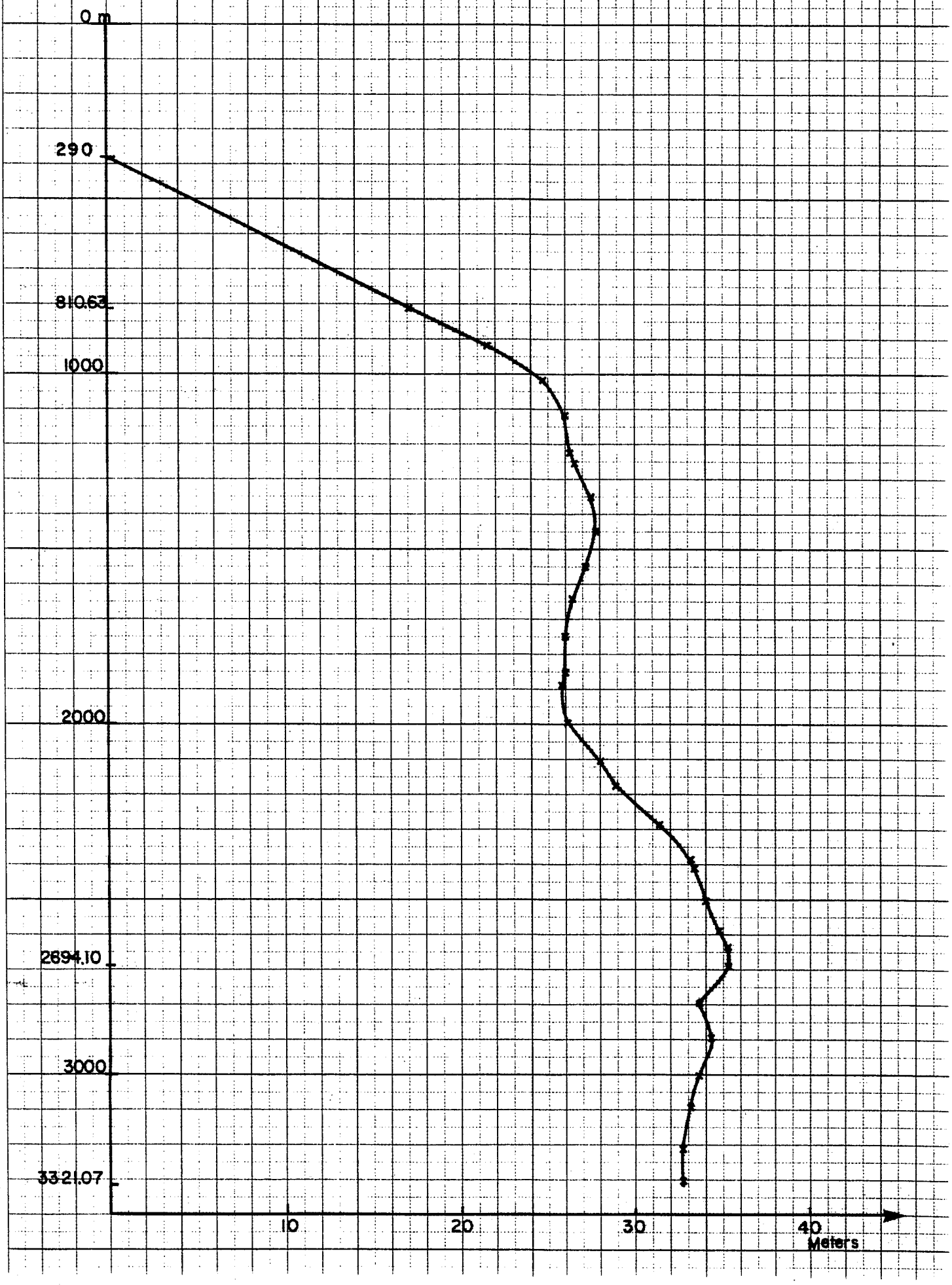
ORIGINAL: TAH
TEGNET: AM
DATO: 2-12-83

# SURVEY DATA WELL 6610/7-1

## DEVIATION FROM VERTICAL

statoil

ORIGINAL: TAH
TEGNET: AM
DATO: 2-12-83



# III 10 DRILLING FLUIDS SUMMARY

# GENERAL SUMMARY

**OPERATOR** STATOIL

**WELL NO.** 6610/7-1

**OPERATOR'S REPRESENTATIVES**
H. ØDEGÅRD, S. EIDE, S. LONGVA, J. STRAND, McBRIDE, VIK

**CONTRACTOR** ROSS DRILLING

**RIG** NEPTUNO NORDRAUG

**CONTRACTOR'S REPRESENTATIVES**
SELDAL, LERPOLD, SKINNES, AAKRE, TENGS, TEKSUM

**ANCHOR ENGINEERS**
T. I. VASTVEIT, I. TORGERSEN, R. FOLKVORD, C. PARSONS

**WATER DEPTH**

| | |
|---|---|
| **SEABED to RKB** | 285 m |
| **36" HOLE DRILLED TO** | 355 m |
| **30" CASING SET AT** | 353 m |
| **26" HOLE DRILLED TO** | 812 m |
| **20" CASING SET AT** | 801 m |
| **17½" HOLE DRILLED TO** | 1265 m |
| **13⅜" CASING SET AT** | 1252 m |
| **12¼" HOLE DRILLED TO** | 2115 m |
| **9⅝" CASING SET AT** | 2097 m |
| **8½" HOLE DRILLED TO** | 3333 m |
| **7" LINER SET AT** | |
| **6" HOLE DRILLED TO** | |

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS TORGERSEN/PARSONS

DATE 15.04.83

Move rig onto location. Waited on anchor handling.

DATE 16.04.83

Waited on weather.

DATE 17.04.83

Mixed spud mud. Waited on weather to tension Anchors.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS TORGERSEN/PARSONS

DATE 18.04.83

Waited on Anchor tension. Spudded and Drilled 36" hole to 318 m.

Slug pipe with ±3 $m^3$ bbls mud on connection, returns to seabed.

DATE 19.04.83

Drilled 36" hole to 355 m. Displaced to mud - rigged up and ran 30" casing.

DATE 20.04.83

Ran 30" casing and cement same. Drilled out shoe and displaced to mud. Rigged up to run riser.

Built 51 $m^3$ kill mud at 1.23 SG in pit no. 6.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS TORGERSEN/PARSONS/VASTVEIT

DATE 21.04.83

Ran and landed riser. Function tested diverter.RIH and drilled 12 1/4" pilot hole from 355 m to 594 m.

Added seawater and prehydrated gel to maintain volume and viscosity.

DATE 22.04.83

Drilled 12 1/4" pilot hole to 815 m. Wiper trip to shoe. RIH. Circulated bottoms up. POOH. Logged. Added seawater and prehydrated gel to control weight and viscosity.

DATE 23.04.83

Opened up 12 1/4" hole to 26" from 353 m to 572 m. Added seawater to control weight and viscosity. Caustic Soda to maintain pH.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS PARSONS/VASTVEIT

DATE 24.04.83

Opened up 12 1/4" hole to 26" to 588 m. POOH. Changed under reamer. RIH. Reamed to 770 m. Added seawater to control weight and viscosity.

DATE 25.04.83

Reamed 26" hole to 812 m. Circulated bottoms up. Displaced hole with 1.30 SG mud. POOH. Displaced riser with seawater. Pulled pin connector. RIH with 26" bit. Weighted up surface pits to 1.30 SG.

DATE 26.04.83

RIH with 26" bit, hole OK. POOH. Rigged up and ran 20" casing. Circulated volume of casing.

Cemented casing and displaced cement with 1.10 SG mud. Cleaned out pits and started to mix new mud. Lost $\pm$286 $m^3$ mud during casing and cementjob.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS PARSONS/VASTVEIT

DATE 27.04.83

Ran and tested BOP.

Mixed new mud.

Changed screens on shakers and mudcleaners.

DATE 28.07.83

Drilled cement and new formation to 818 m. Leak off test equal to 1.46 SG. Drilled to 900 m. Added prehydrated Bentonite to increase YP and CMC for fluid loss control.

Added Gyp to keep excess.

Built 73 $m^3$ kill mud - 1.40 SG.

DATE 29.04.83

Drilled to 1018 m. Ran survey. Reamed from 1000 m to 1018 m - 2 m fill. Added prehydrated gel to control weight and to increase viscosity and YP.. CMC for fluid loss control and Gyp to maintain excess.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS VASTVEIT/FOLKVORD

DATE 30.04.83

Ran survey. Drilled to 1085 m. Weighted up to 1.22 SG. Drilled to 1123 m.

Circulated and weighted up from 1.22 SG to 1.29 SG. Drilled ahead.

Too high level in active pits, gave unstable conditions while weighting up. Agitators did not mix the surface which gelled up.

DATE 01.05.83

Drilled ahead. Started centrifuge. Weighted up from 1.29 SG to 1.35 SG. Drilled to 1260 m. Weighted up from 1.35 SG to 1.45 SG. Circulated and POOH. Tight hole from 1220 m to 1125 m. Logged. Added water and Ligno for MBT and viscosity control. Gyp for exces. Detergent and Defoamer: slight foaming. Caustic for pH ±10.

DATE 02.05.83

Logged. RIH. Drilled from 1260 m to 1265 m.

Circulated. POOH. Ran 13 3/8" casing. Ran centrifuging and added water for MBT control. Added Ligno for viscosity and CMC for fluid loss.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS VASTVEIT/FOLKVORD

DATE 03.05.83

Ran casing. Weighted up kill mud from 1.40 SG to 1.50 SG. Circulated. Lost to formation, 6 $m^3$. Circulated. New losses - 3 $m^3$. Mixed Mica pill and pumped it. Pumped cement. Mixed gel pill for wellhead (with Drilling Detergent). Cleaned and dumped sandtraps.

Added CMC for fluid loss, Caustic for pH, ligno and water for viscosity and MBT and Gyp for excess.

Barite tests: All below 100 ppm $Ca^{++}$.

DATE 04.05.83

RIH with 12 1/4" bit. Drilled out 13 3/8" casing shoe. Cut back mud weight from 1.45 SG to 1.40 SG. Drilled to 1268 m. Circulated and conditoned mud. Leak off: 1.74 SG equivalent. Drilled ahead. Added water and ran centrifuge for MBT control, CMC for fluid loss, Ligno for viscosity and Gyp for excess.

DATE 05.05.83

Drilled ahead. Lost 3 $m^3$ to formation. Weighted up to 1.5 SG. Wiper trip. Flush riser. Flowline plugged with gumbo. Lost about 32 $m^3$.

Added water and ran centrifuge for MBT control, CMC for fluid loss, Ligno for viscosity and Gyp for excess.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS VASTVEIT/FOLKVORD/TORGERSEN

DATE 06.05.83

Drilled 12 1/4" hole from 1628 m to 1649 m. Circulated bottoms up. Surveyed. POOH. RIH with bit no. 7. Drilled 12 1/4" hole from 1649 m to 1766 m. Surveyed at 1757 m.

Added Gyp to maintain excess. Added seawater and ran centrifuge to control MBT and rheology. Used CMC LV for fluid loss control.

Ran garret gas train for $H_2S$ at 1700 m: negative.

DATE 07.05.83

Drilled 12 1/4" hole from 1766 m to 1890 m. Surveyed at 1861 m. Checked for $H_2S$ at 1800 m: negative.

Added Gyp to maintain excess in mud. Controlled MBT and rheology with additions of seawaetr and Ligno. Ran centrifuge to help control MBT. Used CMC LV to maintain fluid loss control.

DATE 08.05.83

Drilled 12 1/4" hole from 1890 m to 1896 m. POOH to change bit. Hole OK. RIH with bit no. 8 and drilled ahead.

Treated mud with seawater, Ligno and prehydrated Bentonite to maintain flow properties. Added CMC LV to control fluid loss and Gyp to keep excess in mud. Ran garret gas train for $H_2S$: negative.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS TORGERSEN/FOLKVORD

DATE 09.05.83

Drilled 12 1/4" hole from 1996 m to 2020 m. Circulated bottoms up. POOH. RIH with bit no. 9. Reamed and washed from 1864 m to 1918 m and from 1988 m to 2020 m. Drilled 12 1/4" hole from 2020 m to 2072 m.

Ran garret gas train for $H_2S$ at 2000 m: negative.

Added Gyp to maintain excess in mud. Controlled rheology and fluid loss with Ligno, prehydrated Bentonite and CMC LV. Added Drilling Detergent to prevent balling.

Changed bottom screens on shakers no. 2 and 3: B80 to B 100.

DATE 10.05.83

Drilled 12 1/4" hole from 2072 m to 2115 m. Circulated bottoms up - POOH. Shclumberer ran logs.

Treated mud with Ligno and CMC LV to maintain flow properties and fluid loss. Added Drilling Detergent to prevent bit balling and Gyp to maintain excess in mud.

Checked for $H_2S$ at 2100 m: negative.

DATE 11.05.83

Schlumberger ran logs. RIH with 12 1/4" bit - no fill. Circulated bottoms up - POOH. Schlumberger ran logs. Prepared to run 9 5/8" casing.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS TORGERSEN/FOLKVORD

DATE 12.05.83

Ran and cemented 9 5/8" casing. Tested BOP's. Tested casing.

DATE 13.05.83

RIH with 8 1/2" bit. Drilled out cement and shoe. Performed leak off test equivalent to 1.76 SG. Drilled 8 1/2" hole from 2097 m to 2119 m. Reduce mud weight to 1.23 SG with seawater.

Maintained flow properties with Gel and fluid loss with CMC.

DATE 14.05.83

Drilled 8 1/2" hole from 2120 m. POOH to change bit and BHA. RIH. Drilled from 2120 m to 2183 m and POOH to core.

Maintained flow properties with gel and reduced fluid loss with CMC.

Ran garret gas train for $H_2S$ at 2145 m: negative.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS TORGERSEN/PARSONS

DATE 15.05.83

RIH with core barrel. Cut core no. 1 from 2183 m to 2202 m. POOH. Picked up 8 1/2" bit - RIH. Washed and reamed from 2178 m to 2202 m. Drilled ahead to 2226 m.

Controlled fluid loss with additions of CMC, Ligno and Lignite.

Ran garret gas train for $H_2S$ at 2200 m: negative.

DATE 16.05.83

Drilled 8 1/2" hole from 2226 m to 2308 m and dropped survey. POOH to change bit. RIH. Drilled ahead to 2316 m. Checked for $H_2s$ at 2300 m: negative.

DATE 17.05.83

Drilled 8 1/2" hole from 2313 m to 2428 m. Surveyed and POOH. Maintained fluid loss with additions of CMC's, Ligno and Lignite.

Checked for $H_2S$ at 2400 m: negative.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS TORGERSEN/PARSONS

DATE 18.05.83

RIH. Drilled 8 1/2" hole from 2428 m to 2546 m. Replaced 16 $m^3$ from active with gel at 35 ppb. Controlled fluid loss with CMC, Ligno and Lignite.

Ran garret gas train for $H_2S$ at 2500 m: negative.

DATE 19.05.83

Drilled 8 1/2" hole from 2546 m to 2593 m. POOH to test BOP's and service BHA.

Maintained properties with CMC, Ligno and Lignite.

DATE 20.05.83

RIH. Drilled 8 1/2" hole to 2661 m. POOH. Picked up core barrel. Added Ligno, Lignite and CMC to control properties.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS PARSONS/VASTVEIT

DATE 21.05.83

Cut two cores. Added CMC, Ligno, Lignite and Resinex for fluid loss control. Prehydrated gel for flow property control.

DATE 22.05.83

RIH with bit. Drilled from 2687 m to 2706 m. POOH. Pulled out core barrel. RIH. Cut core no. 4.

Added Ligno, Lignite, CMC and Resinex for fluid loss control. Prehydrated Betonite to maintain YP.

DATE 23.05.83

Cut core no. 4. POOH. RIH with 8 1/2" bit. Drilled from 2726 m to 2760 m.

Added Ligno, Lignite, CMC and Resinex for fluid loss controll. Prehydrated gel to maintain YP.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS PARSONS/VASTVEIT

DATE 24.05.83

Drilled 8 1/2" hole to 2915 m. Controlled fluid loss with Ligno, Lignite, Resinex and CMC. Controlled flow properties with prehydrated gel.

DATE 25.05.83

Drilled to 2924 m. POOH. Logged. RIH with 8 1/2" bit. Drilled to 2937 m. Added Ligno, CMC and Resinex for fluid loss control. Prehydrated gel to maintain YP.

DATE 26.05.83

Drilled 8 1/2" hole to 3038 m. Made one wiper trip at 3019 m to retrieve survey.

Added Ligno, Lignite, CMC and Resinex to control fluid loss. Prehydrated gel for flow properties.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS VASTVEIT/PARSONS/FOLKVORD

DATE 27.05.83

Drilled 8 1/2" hole to 3114 m. POOH. BOP test. Added Ligno, Lignite, CMC to control fluid loss and prehydrated gel for flow properties.

DATE 28.05.83

BOP test. RIH. Drilled ahead. Added prehydrated gel for flow properties. Added CMC, Ligno and Lignite for fluid loss control.

Ran garret gas train for $H_2S$ at 3200 m: negative.

DATE 29.05.83

Drilled to 3218 m. Ran survey. Drilled to 3241 m. POOH. Changed bit. RIH.

Added prehydrated gel for flow properties. Added CMC, Ligno and Lignite for fluid loss control.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS VASTVEIT/FOLKVORD

DATE 30.05.83

RIH. Drilled from 3241 m to 3333 m.

Added prehydrated gel for flow properties, added CMC, Ligno and Lignite for fluid loss control and water for viscosity control.

Ran garret gas train at 3300 m: 3 ppm $H_2S$.

DATE 31.05.83

Circulated bottoms up. POOH. Logged.

Ran garret gas train for $H_2S$ at 3333 m: 3 ppm.

DATE 01.06.83

Logged.

Cleaned up pits and maintained solids equipment.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS FOLKVORD

DATE 02.06.83

Logged.

All consumption on the drilling fluid report this day was correction from inventory check.

DATE 03.06.83

Logged. RIH with opened end. Circulated and cemented 6 plugs. RIH with 8 1/2" bit.

Added Bicarbonate for treating cement and Ligno for viscosity control.

DATE 04.06.83

RIH with 8 1/2" bit. Tagged cement. POOH. Set mech plug at 550 m.

Cut and pulled 9 5/8" casing.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

# DAILY SUMMARY REPORT

WELL NAME 6610/7-1

OPERATOR STATOIL

ENGINEERS FOLKVORD

DATE 05.06.83

Logged. Cut and pulled 13 3/8" casing.

Displaced mud with seawater. Cemented top plug. Pulled riser and BOP.

DATE

DATE

# SUMMARY OF EVENTS

**OPERATOR:** STATOIL

**WELL NO.** 6610/7-1

36" **HOLE/** 30" **CASING INTERVAL**

Drilled 36" hole to 355 m. Pumped $\pm 3$ $m^3$ of mud on each connection. Displaced the hole with mud. Ran and cemented 30" casing. No problems.

# SUMMARY OF EVENTS

**OPERATOR:** STATOIL

**WELL NO.** 6610/7-1

26" **HOLE/** 30" **CASING INTERVAL**

Ran and landed riser. Built 51 $m^3$ kill mud 1.23 SG. Drilled 12 1/4" pilot hole to 815 m. Logged this section, and opened it up to 26". Seawater and small amounts of prehydrated Bentonite were added to control weight and viscosity. Added Caustic Soda to maintain pH at ±10.5. Displaced hole with 1.30 SG mud. Pulled riser.

The hole was checked with 26" bit and found in good shape. Ran 20" casing and circulated the capacity of the casing using 1.30 SG mud. Cemented casing and displaced cement with 1.10 SG mud.

# RECOMMENDATIONS

Both the 36" and 26" sections were drilled according to program with no major problems. 65 % of the costs in the 26" section was Barite used to weight up the mud before displacing the riser. A total of 286 $m^3$ mud were lost during casing and cementation.

# SUMMARY OF EVENTS

**OPERATOR:** STATOIL

**WELL NO.** 6610/7-1

17 1/2" **HOLE/** 13 3/8" **CASING INTERVAL**

Ran and tested BOP's. Mixed up new gyp mud. Drilled cement and new formation to 818 m. Leak off test equivalent to 1.46 SG. Drilled to 1265 m without problems. The first 250 m was mainly sandstone. To maintain a good YP in this section a lot of Bentonite was used. The bottom part of the 17 1/2" hole was mostly claystone which caused heavy dilutions with seawater to control viscosity and MBT. The centrifuge was used to save Barite while drilling this clay section. Drilled out the 20" casing shoe with 1.10 SG mud, and the denisty was increased gradually up to 1.45 SG at 13 3/8" casing depth.

The section was logged and 13 3/8" casing was ran and cemented successfully.

# RECOMMENDATIONS

As the MBT content in the 17 1/2" section got up to a maximum of 25 ppg, it indicates that the gyp-mud was inhibitive enough for this ara. It is still recommended to maintain 2 ppb Drilling Detergent in the mud to minimize torque and bit balling.

# SUMMARY OF EVENTS

**OPERATOR:** STATOIL

**WELL NO.** 6610/7-1

~~12 1/4"~~ **HOLE/** ~~9 5/8"~~ **CASING INTERVAL**

Drilled out 13 3/8" shoe and cut mud back to 1.40 SG. Performed leak off test - equal to 1.74 SG.

Drilled ahead. Weighted up to 1.50 Sg at approx. 1500 m and drilled the rest of the section with this mud weight. Dilutions with seawater was necessary to control viscosity and MBT in the top part of the section. The bottom part contained more sand, and it was necessary to use some prehydrated Bentonite to maintain a MBT at about 20. Added some Drilling Detergent to prevent bit balling.

The only problem that occured in this section was some plugging of the flowline due to gumbo. This was only in the top part, and it seemed like the problem was solved by addition of Drilling Detergent.

The hole was logged and 9 5/8" casing ran and cemented. No problems.

# RECOMMENDATIONS

Once the gyp-mud was made up it was very stable and required little maintenance treatment. Due to some bit balling at the end of the 12 1/4" section it is recommended to maintain ±2ppb Drilling Detergent in the mud.

# SUMMARY OF EVENTS

**OPERATOR:** STATOIL

**WELL NO.** 6610/7-1

8 1/2" **HOLE/** _____ **CASING INTERVAL**

Drilled out cement and 9 5/8" casing shoe. Carried out leak off test equal to 1.76 SG. Drilled to 2119 m. Reduced mud weight from 1.50 SG to 1.23 SG. Drilled ahead. Cut core no. 1 at 2183 m, no. 2 and no. 3 at 2661 m and no. 4 at 2706 m. Drilled to 2924 m. Ran Schlumberger logs. Drilled to 3333 m. The hole was logged, plugged back and abandoned. This section was drilled without problems. The mud was very stable, and needed little treatment to maintain properties.

# RECOMMENDATIONS

The 8 1/2" section was drilled according to program with no major problems.

The overall cost of the well was estimated by Anchor Drilling Fluids A/S to be approximately US$241,500.-. The actual cost of the well turned out to be US$ 232,800.-.

OPERATOR STATOIL

WELL NO. 6610/7-1

# MATERIAL CONSUMPTION & COST ANALYSIS

36" HOLE DRILLED TO 355 Meters ~~Feet~~ 30" CASING SET AT 353 Meters ~~Feet~~

ACTUAL AMOUNT OF HOLE DRILLED 67 Meters ~~Feet~~ DAYS ON INTERVAL 5

DRILLING FLUID SYSTEM SPUD MUD

| MATERIAL | UNIT SIZE | PROG. | USED | VARIANCE ± | US$ COST |
|---|---|---|---|---|---|
| BENTONTITE BULK | M/T | 28 | 33 | + 5 | 12,540.00 |
| CAUSTIC SODA | 25 KG | 29 | 21 | - 8 | 420.00 |
| SODA ASH | 50 KG | 5 | 7 | + 2 | 147.00 |
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COST/DAY US$ 2,621.40 TOTAL COST FOR INTERVAL US$ 13,107.00

COST/Mt. ~~or Ft.~~ US$ 195.63 PROG. COST FOR INTERVAL US$ 11,325.00

ENGR. COST * US$ 4,125.00 COST VARIANCE FOR INTERVAL US$+ 1,782.00

* INCLUDING 2 DAYS RIG MOVE

OPERATOR STATOIL

WELL NO. 6610/7-1

# MATERIAL CONSUMPTION & COST ANALYSIS

26" HOLE DRILLED TO 815 Meters ~~Feet~~ 20" CASING SET AT 801 Meters ~~Feet~~

ACTUAL AMOUNT OF HOLE DRILLED 460 Meters ~~Feet~~ DAYS ON INTERVAL 7

DRILLING FLUID SYSTEM SPUD MUD

| MATERIAL | UNIT SIZE | PROG. | USED | VARIANCE ± | US$ COST |
|---|---|---|---|---|---|
| BENTONITE BULK | M/T | 40 | 20 | - 20 | 7,600.00 |
| BARITE BULK | M/T | 0 | 139 | + 139 | 20,572.00 |
| BENTONITE | 50 KG | 0 | 42 | + 42 | 756.00 |
| CAUSTIC SODA | 25 KG | 50 | 124 | + 74 | 2,480.00 |
| SODA ASH | 50 KG | 10 | 5 | - 5 | 105.00 |
| LIGNSULPHONATE | 25 KG | 20 | 24 | + 4 | 468.00 |
| ANCO DETERGENT | 200 LTR | 3 | 0 | - 3 | 0 |
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COST/DAY US$ 4.568.71

TOTAL COST FOR INTERVAL US$ 31,981.00

COST/Mt. ~~or Ft.~~ US$ 69.52

PROG. COST FOR INTERVAL US$ 18,258.00

ENGR. COST US$ 5,775.00

COST VARIANCE FOR INTERVAL US$+13,723.00

OPERATOR STATOIL

WELL NO. 6610/7-1

# MATERIAL CONSUMPTION & COST ANALYSIS

17 1/2" HOLE DRILLED TO 1265 Meters 13 3/8" CASING SET AT 1252 Meters

ACTUAL AMOUNT OF HOLE DRILLED 450 Meters DAYS ON INTERVAL 7

DRILLING FLUID SYSTEM GYP/LIGNOSULPHONATE

| MATERIAL | UNIT SIZE | PROG. | USED | VARIANCE ± | US$ COST |
|---|---|---|---|---|---|
| BENTONITE | M/T | 0 | 34 | + 34 | 12,920.00 |
| BARITE BULK | M/T | 220 | 250 | + 30 | 37,000.00 |
| BENTONITE | 50 KG | 368 | 0 | - 368 | 0 |
| CHR. LIGNOSULPHONATE | 25 KG | 275 | 199 | - 76 | 3,880.50 |
| CAUSTIC SODA | 25 KG | 60 | 91 | + 31 | 1,820.00 |
| SODA ASH | 50 KG | 25 | 4 | - 21 | 84.00 |
| GYPSUM | 40 KG | 294* | 420 | + 126 | 4,435.20 |
| CMC LOVIS | 25 KG | 110 | 94 | - 16 | 6,110.00 |
| CMC HIVIS | 25 KG | 25 | 57 | + 32 | 3,819.00 |
| ANCO DETERGENT | 200 LTR | 25 | 7 | - 18 | 3,465.00 |
| DEFOAMER | 1 LTR | 0 | 130 | + 130 | 613.60 |
| MICA F | 25 KG | 0 | 23 | + 23 | 506.00 |
| MICA C | 25 KG | 0 | 23 | + 23 | 506.00 |
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COST/DAY US$10,737.04 TOTAL COST FOR INTERVAL US$75,159.30

COST/Mt US$ 167.02 PROG. COST FOR INTERVAL US$ 70,576.14

ENGR. COST US$ 5.775.00 COST VARIANCE FOR INTERVAL US$ +4,583.16

*294 sxs of 40 kgs, eqv. to 235 sxs of 50 kgs

OPERATOR STATOIL

WELL NO. 6610/7-1

# MATERIAL CONSUMPTION & COST ANALYSIS

12 1/4" HOLE DRILLED TO 2115 Meters ~~Feet~~ 9 5/8" CASING SET AT 2097 Meters ~~Feet~~

ACTUAL AMOUNT OF HOLE DRILLED 850 Meters ~~Feet~~ DAYS ON INTERVAL 9

DRILLING FLUID SYSTEM GYP/LIGNOSULPHONATE

| MATERIAL | UNIT SIZE | PROG. | USED | VARIANCE ± | US$ COST |
|---|---|---|---|---|---|
| BARITE BULK | M/T | 350 | 202 | -148 | 29,896.00 |
| WYOMING BENTONITE | 50 KG | 300 | 0 | -300 | - |
| LIGNOSULPHONATE | 25 KG | 300 | 137 | -163 | 2,671.50 |
| CMC LOVIS | 25 KG | 320 | 211 | -109 | 13,715.00 |
| CMC HIVIS | 25 KG | 0 | 10 | + 10 | 670.00 |
| GYPSUM | 40 KG | 219* | 258 | + 39 | 2,724.48 |
| CAUSTIC | 25 KG | 90 | 91 | + 1 | 1,820.00 |
| DRILLING DETERGENT | 200 LTR | 0 | 8 | + 8 | 3,960.00 |
| SODA ASH | 50 KG | 20 | 0 | - 20 | - |
| SODIUM BICARBONATE | 50 KG | 22 | 0 | - 22 | - |
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COST/DAY US$ 6,161.89 TOTAL COST FOR INTERVAL US$ 55,456.98

COST/Mt. ~~Ft~~ US$ 65.24 PROG. COST FOR INTERVAL US$ 90,182.00

ENGR. COST US$ 7,425.00 COST VARIANCE FOR INTERVAL US$ -34,752.02

* 219 sxs of 40 kgs, eqv. to 175 sxs of 50 kgs.

OPERATOR STATOIL

WELL NO. 6610/7-1

# MATERIAL CONSUMPTION & COST ANALYSIS

8 1/2" HOLE DRILLED TO 3333 Meters ~~Feet~~ CASING SET AT Meters Feet

ACTUAL AMOUNT OF HOLE DRILLED 1218 Meters ~~Feet~~ DAYS ON INTERVAL 23

DRILLING FLUID SYSTEM GEL/LIGNO/LIGNITE

| MATERIAL | UNIT SIZE | PROG. | USED | VARIANCE ± | US$ COST |
|---|---|---|---|---|---|
| BARITE | M/T | 165 | 36 | - 129 | 5,328.00 |
| WYOMING BENTONITE | M/T | 0 | 27 | + 27 | 10,260.00 |
| WYOMING BENTONITE | 50 KG | 216 | 16 | - 200 | 288.00 |
| CHROME LIGNITE | 25 KG | 120 | 206 | + 86 | 6,592.00 |
| SPERCELL C | 25 KG | 220 | 235 | + 15 | 4,582.50 |
| CMC LV | 25 KG | 200 | 198 | - 2 | 12,870.00 |
| CMC HV | 25 KG | 0 | 66 | + 66 | 4,422.00 |
| DRISPAC REGULAR | 25 KG | 0 | 7 | + 7 | 1,078.00 |
| DRISPAC SUPERLO | 25 KG | 0 | 3 | + 3 | 495.00 |
| RESINEX | | 0 | 83 | + 83 | 8,005.35 |
| CAUSTIC SODA | 25 KG | 70 | 122 | + 52 | 2,440.00 |
| SODA ASH | 50 KG | 20 | 2 | - 18 | 42.00 |
| GYPSUM | 40 KG | 0 | 10 | + 10 | 105.60 |
| MICA FINE | 25 KG | 0 | 8 | + 8 | 176.00 |
| MICA COARSE | 25 KG | 0 | 10 | + 10 | 220.00 |
| $CaCl_2$ | 50 KG | 0 | 6 | + 6 | 180.00 |
| LIME | 40 KG | 0 | 4 | + 4 | 26.00 |
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COST/DAY US$ 2,438.06 TOTAL COST FOR INTERVAL US$ 57,110.45

COST/Mt. or ~~Ft~~ US$ 46.89 PROG. COST FOR INTERVAL US$ 51,258.00

ENGR. COST US$ 17,600.00 COST VARIANCE FOR INTERVAL US$ +5,852.45

OPERATOR STATOIL

WELL NO. 6610/7-1

# TOTAL CONSUMPTION & COST ANALYSIS

TOTAL DEPTH 3333 Meters

TOTAL HOLE DRILLED 3045 Meters

TOTAL DAYS 51

| MATERIAL | UNIT SIZE | PROG. | USED | VARIANCE ± | US$ COST |
|---|---|---|---|---|---|
| BARITE BULK | M/T | 735 | 627 | - 108 | 92,796.00 |
| WYOMING BENTONITE BULK | M/T | 68 | 114 | + 46 | 43,320.00 |
| WYOMING BENTONITE | 50 KG | 884 | 58 | - 826 | 1,044.00 |
| SPERCELL C | 25 KG | 815 | 595 | - 220 | 11,602.50 |
| LIGNITE | 25 KG | 120 | 206 | + 86 | 6,592.00 |
| CMC LV | 25 KG | 630 | 503 | - 127 | 32,695.00 |
| CMC HV | 25 KG | 45 | 133 | + 88 | 8,911.00 |
| DRISPAC SUPERLO | 50 LBS | 0 | 3 | + 3 | 495.00 |
| DRISPAC REGULAR | 50 LBS | 0 | 7 | + 7 | 1,078.00 |
| RESINEX | | 0 | 83 | + 83 | 8,005.35 |
| CAUSTIC SODA | 25 KG | 299 | 449 | + 150 | 8,980.00 |
| SODA ASH | 50 KG | 80 | 18 | - 62 | 378.00 |
| GYPSUM | 40 KG | 410 | 688 | + 278 | 7,265.28 |
| MICA FINE | 25 KG | 0 | 33 | + 33 | 726.00 |
| MICA COARSE | 25 KG | 0 | 31 | + 31 | 682.00 |
| $CaCl_2$ | 50 KG | 0 | 6 | + 6 | 180.00 |
| LIME | 50 KG | 0 | 4 | + 4 | 26.00 |
| DRILLING DETERGENT | 200 L | 28 | 15 | - 13 | 7,425.00 |
| DEFOAMER | 1 L | 0 | 130 | + 130 | 613.60 |
| | | | | | |
| | | | | | |

COST/DAY US$ 4,565.00

TOTAL COST FOR INTERVAL US$ 232.814.73

COST/Mt. US$ 76.46

PROG. COST FOR INTERVAL US$ 241.623.50

ENGR. COST US$ 40,700.00

COST VARIANCE FOR INTERVAL US$ -8,808.77

# ANCHOR DRILLING FLUIDS AS

OSLO — STAVANGER

## Drilling Fluid & Material Consumption Report

WELL NAME 6610/7-1 AREA TRAENABANKEN

OPERATOR STATOIL RIG. NEPTUNO NORDRAUG

MUD SYSTEM SPUD MUD ENGINEERS

| Day No. | DATE 1983 | ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE | LOSSES SURFACE | VOLUME MUD BUILT | BULK MATERIALS: M/T BARITE | M/T BENTONITE | SACK MATERIALS: BENTONITE | THINNERS: LIGNO | LIGNITE | BICARB. | POLYMERS: CMC LV | CMC HV | DRISPAC REGULAR | DRISPAC SUPERLO | RESINEX | CAUSTIC | SODA ASH | GYPSUM | DEFOAMER | DRILLING DETERGENT | MICA F | MICA C | CaCl2 | LIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.04 | | | | | NO USAGE | | | | | | | | | | | | | | | | | | |
| 2 | 16.04 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 17.04 | | | 1570 | | 26 | | | | | | | | | | 17 | 6 | | | | | | | |
| 4 | 18.04 | 36 | | | | NO USAGE | | | | | | | | | | | | | | | | | | |
| 5 | 19.04 | 740 | | 550 | | 7 | | | | | | | | | | 4 | 1 | | | | | | | |
| 6 | 20.04 | | | | | NO USAGE | | | | | | | | | | | | | | | | | | |
| 7 | 21.04 | | 450 | 834 | | 13 | | 4 | | | | | | | | 19 | 2 | | | | | | | |
| 8 | 22.04 | 3 | 405 | 400 | 11 | | | 8 | | | | | | | | 18 | | | | | | | | |
| 9 | 23.04 | | 755 | 1200 | | | | 2 | | | | | | | | 34 | | | | | | | | |
| 10 | 24.04 | | 949 | 1500 | 48 | | | 5 | | | | | | | | 38 | | | | | | | | |
| 11 | 25.04 | | 401 | 300 | 57 | | | 5 | | | | | | | | 8 | | | | | | | | |
| 12 | 26.04 | * 1800 | 308 | 600 | 23 | 7 | 42 | | | | | | | | | 7 | 3 | | | | | | | |
| 13 | 27.04 | | | 849 | 1 | 14 | | 30 | | | | | | | | 28 | 3 | 89 | 20 | | | | | |
| 14 | 28.04 | | 259 | 450 | 45 | 2 | | 26 | | | 70 | 31 | | | | 7 | 1 | 87 | | | | | | |
| FORWARD | | | | | | | | | | | | | | | | | | | | | | | | |
| ESTIMATED TOTALS | | 2607 | 3527 | 8253 | 185 | 69 | 42 | 80 | | | 70 | 31 | | | | 180 | 16 | 176 | 20 | | | | | |

REMARKS:

*Lost in hole when circulating casing and during CMT job.

# ANCHOR DRILLING FLUIDS AS

OSLO — STAVANGER

## Drilling Fluid & Material Consumption Report

WELL NAME 6610/7-1 AREA TRAENABANKEN

OPERATOR STATOIL RIG. NEPTUNO NORDRAUG

MUD SYSTEM SPUD MUD ENGINEERS VASTVEIT/ FOLKVORD

| Day No. | DATE 1983 | ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE | LOSSES SURFACE | VOLUME MUD BUILT | BULK MATERIALS: M/T BARITE | M/T BENTONITE | SACK MATERIALS: BENTONITE | MATERIALS ADDED TO CONTROL PROPERTIES — THINNERS: LIGNO | LIGNITE | BICARB. | POLYMERS: CMC LV | CMC HV | DRISPAC REGULAR | DRISPAC SUPERLO | RESINEX | CAUSTIC | SODA ASH | GYPSUM | DEFOAMER | DRILLING DETERGENT | LUBRICANTS: MICA F | MICA C | $CaCl_2$ | LIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 29.04 | | 765 | 1150 | | 11 | | 1 | | | 14 | 25 | | | | 14 | | 36 | | | | | | |
| 16 | 30.04 | | 506 | 480 | 86 | 7 | | 77 | | | | | | | | 14 | | 92 | 80 | 1000 | | | | |
| 17 | 01.05 | | 430 | 530 | 106 | | | 39 | | | | | | | | 19 | | 81 | 30 | 200 | | | | |
| 18 | 02.05 | | 67 | 60 | 3 | | | 20 | | | 4 | | | | | 5 | | 25 | | | | | | |
| 19 | 03.05 | 305 | 230 | 121 | 9 | | | 6 | | | 6 | 1 | | | | 4 | | 10 | | 200 | 23 | 23 | | |
| 20 | 04.05 | | 358 | 260 | 32 | | | 20 | | | 55 | 10 | | | | | | 42 | | | | | | |
| 21 | 05.05 | 20 | 413 | 480 | 61 | | | 19 | | | 31 | | | | | 13 | | 71 | | 800 | | | | |
| 22 | 06.05 | | 529 | 530 | 38 | | | 5 | | | 24 | | | | | 23 | | 58 | | | | | | |
| 23 | 07.05 | | 232 | 355 | 24 | | | 14 | | | 48 | | | | | 20 | | 19 | | 400 | | | | |
| 24 | 08.05 | | 80 | 130 | 14 | | | 22 | | | 29 | | | | | 14 | | 22 | | | | | | |
| 25 | 09.05 | | 60 | 84 | 21 | | | 40 | | | 16 | | | | | 10 | | 36 | | 200 | | | | |
| 26 | 10.05 | | 25 | 80 | 12 | | | 15 | | | 8 | | | | | 7 | | 10 | | 200 | | | | |
| 27 | 11.05 | | 63 | | | | | 2 | | | | | | | | 2 | | | | | | | | |
| 28 | 12.05 | 120* | 439 | 140 | | | | | | | | | | | | 2 | | | | | | | | |
| FORWARD | | 2607 | 3527 | 8253 | 185 | 69 | 42 | 80 | | | 70 | 31 | | | | 180 | 16 | 176 | 20 | | | | | |
| ESTIMATED TOTALS | | 3052 | 7724 | 12653 | 591 | 87 | 42 | 360 | | | 305 | 67 | | | | 327 | 16 | 678 | 130 | 3000 | 23 | 23 | | |

REMARKS:

# ANCHOR DRILLING FLUIDS AS

OSLO — STAVANGER

## Drilling Fluid & Material Consumption Report

MUD SYSTEM: SPUD MUD

WELL NAME: 6610/7-1 AREA: TRAENABANKEN

OPERATOR: STATOIL RIG: NEPTUNO NORDRAUG

ENGINEERS: TORGERSEN/PARSONS/VASTVEIT

| Day No. | DATE 1983 | ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE | LOSSES SURFACE | VOLUME MUD BUILT | BULK MATERIALS: M/T BARITE | M/T BENTONITE | SACK MATERIALS: BENTONITE | | THINNERS: LIGNO | LIGNITE | BICARB. | | POLYMERS: CMC LV | CMC HV | DRISPAC REGULAR | DRISPAC SUPERLO | RESINEX | | CAUSTIC | SODA ASH | GYPSUM | DEFOAMER | DRILLING DETERGENT | OTHERS: MICA F | MICA C | $CaCl_2$ | LIME | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | 13.05 | | 750 | 700 | | 5 | | | 3 | | | | 4 | 7 | 1 | | | | 6 | 1 | | | | | | | | |
| 30 | 14.05 | | 73 | 150 | | 1 | | | 11 | 8 | | | 34 | 21 | 1 | | | | 10 | 1 | | | | | | | | |
| 31 | 15.05 | | 17 | 140 | | 2 | | | 17 | 5 | | | 8 | 2 | | | | | 6 | 1 | | | | | | | | |
| 32 | 16.05 | | 60 | 60 | 14 | | | | 16 | 16 | | | 23 | 10 | | | | | 1 | | | | | | | | | |
| 33 | 17.05 | | 159 | 50 | | | | | 14 | 15 | | | 2 | | | | | | 8 | | | | | | | | | |
| 34 | 18.05 | | 121 | 120 | 3 | 4 | | | 18 | 16 | | | 8 | | | | | | 9 | | | | | | | | | |
| 35 | 19.05 | | 55 | | | 4 | | | 15 | 12 | | | 12 | | | | | | 7 | 1 | | | | | | | | |
| 36 | 20.05 | | 256 | 160 | | | | | 15 | 15 | | | 10 | 5 | | | | | 4 | | | | | | | | | |
| ~~37~~ | ~~21.05~~ | | ~~85~~ | ~~30~~ | | | | | 14 | 14 | | | 14 | | | | 16 | | 6 | | | | | | | | | |
| 38 | 22.05 | | 32 | 150 | | | | | 14 | 14 | | | 13 | | | | 13 | | 8 | | | | | | | | | |
| 39 | 23.05 | | 110 | 50 | 12 | 2 | | | 18 | 18 | | | 16 | | | | 18 | | 8 | | | | | | | | | |
| 40 | 24.06 | | 162 | 220 | | 2 | | | 27 | 17 | | | 11 | | | | 15 | | 11 | 1 | | | | | | | | |
| 41 | 25.05 | | 45 | | | | | | 7 | | | | 3 | 2 | | | 7 | | 5 | | | | | | | | | |
| 42 | 26.05 | | 210 | 130 | 2 | 2 | | | 14 | 9 | | | 16 | | | | 14 | | 8 | | | | | | | | | |
| FORWARD | | 3052 | 7724 | 12653 | 591 | 87 | 42 | | 360 | | | | 305 | 67 | | | | | 327 | 16 | 678 | 130 | 3000 | 23 | 23 | | | |
| ESTIMATED TOTALS | | 3052 | 9859 | 14613 | 622 | 109 | 42 | | 563 | 159 | | | 479 | 114 | 2 | | 83 | | 424 | 21 | 678 | 130 | 3000 | 23 | 23 | | | |

REMARKS:

# ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

## Drilling Fluid & Material Consumption Report

MUD SYSTEM: SPUD MUD

WELL NAME: 6610/7-1 AREA: TRAENABANKEN
OPERATOR: STATOIL RIG: NEPTUNO NORDRAUG
ENGINEERS: VASTVEIT/ FOLKVORD

| Day No. | DATE 1983 | ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE | LOSSES SURFACE | VOLUME MUD BUILT | BULK MATERIALS: M/T BARITE | M/T BENTONITE | SACK MATERIALS: BENTONITE | MATERIALS ADDED TO CONTROL PROPERTIES — THINNERS: LIGNO | LIGNITE | BICARB. | POLYMERS: CMC LV | CMC HV | DRISPAC REGULAR | DRISPAC SUPERLO | RESINEX | CAUSTIC | SODA ASH | GYPSUM | DEFOAMER | DRILLING DETERGENT | OTHERS: MICA F | MICA C | $CaCl_2$ | LIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | 27.05 | | 192 | 150 | | 2 | | 1 | 17 | | 3 | | | | | 4 | | | | | | | | |
| 44 | 28.05 | | 108 | 140 | 2 | 1 | | 1 | 11 | | | 5 | | | | 3 | | | | | | | | |
| 45 | 29.05 | | 204 | 40 | | | | 16 | 9 | | 4 | 6 | | | | 4 | | | | | | | | |
| 46 | 30.05 | | 206 | 110 | 3 | 2 | | 23 | 11 | | 11 | | | | | 13 | | | | | | | | |
| 47 | 31.05 | | 30 | 10 | | | | 3 | 1 | | 1 | | | | | 1 | | | | | | | | |
| 48 | 01.06 | | 13 | | | | | | | | | | | | | | | | | | | | | |
| 49 | 02.06 | | | | | | 16 | + 18 | + 2 | | 5 | 8 | 5 | 3 | | | + 3 | 10 | | | 10 | 8 | 6 | 4 |
| 50 | 03.05 | 325 | 185 | 250 | | | | 6 | | 4 | | | | | | | | | | | | | | |
| 51 | 04.05 | 360 | 84 | | | | | | | | | | | | | | | | | | | | | |
| FORWARD | | 3052 | 9859 | 14619 | 622 | 109 | 42 | 563 | 159 | | 479 | 114 | 2 | | 83 | 424 | 21 | 678 | 130 | 3000 | 23 | 23 | | |
| ESTIMATED TOTALS | | 3809 | 11850 | 15319 | 627 | 114 | 58 | 595 | 206 | 4 | 503 | 133 | 7 | 3 | 83 | 449 | 18 | 688 | 130 | 3000 | 33 | 32 | 6 | 5 |

REMARKS:

All consumption at day no 49 is from inventory check. Correction w+ is excess.

# ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

## Drilling Mud Properties Record

WELL NAME 6610/7-1 AREA TRAENABANKEN
OPERATOR STATOIL RIG. NEPTUNO NORDRAUG
ENGINEERS TORGERSEN/PARSONS/VASTVEIT
MUD SYSTEM SPUD MUD

| Day No. | DATE 1983 | DEPTH FEET □ METERS □ METER | MUD PROPERTIES: DENSITY PPG □ SG □ SG | VISCOSITY sec/qt | A.V. cps | P.V. cps | Y.P. #/100 sq.ft. | GELS 0 / 10 | FLUID LOSS 30 Min cc's | CAKE 32 nds | H.T.H.P. cc's | pH | Filtrate Analysis Cl⁻ ppm X 1000 | Ca ++ ppm T.H. | Pf | RETORT % OIL | % SOLIDS CORR. | % SAND | BENTONITE #/BBL | POTASH #/BBL | POLYMER #/BBL | "N" | "K" | OPERATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15/ 4 | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 16/ 4 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 17/ 4 | | 1.04 | 120 | | | | | | | | | | | | | | | | | | | | |
| 4 | 18/ 4 | 318 | 1.04 | 120 | | | | | | | | | | | | | | | | | | | | |
| 5 | 19/ 4 | 355 | 1.04 | 120 | | | | | | | | | | | | | | | | | | | | |
| 6 | 20/ 4 | 355 | 1.04 | 120 | | | | | | | | | | | | | | | | | | | | |
| 7 | 21/ 4 | 658 | 1.09 | 50 | 35.5 | 11.0 | 49.0 | 21/26 | | | | 10.2 | | | | | | | | | | .24 | 15.03 | |
| 8 | 22/ 4 | 815 | 1.10 | 56 | 41.0 | 5.0 | 72.0 | 19/19 | | | | 10.5 | | | | | | | | | | .09 | 45.90 | |
| 9 | 23/ 4 | 360 | 1.11 | 49 | 36.0 | 12.0 | 48.0 | 19/20 | | | | 10.5 | | | | | | | | | | .26 | 13.40 | |
| 10 | 24/ 4 | 800 | 1.11 | 46 | 32.0 | 10.0 | 44.0 | 16/18 | | | | 10.4 | | | | | | | | | | .24 | 13.35 | |
| 11 | 25/ 4 | | 1.30 | 47 | 25.0 | 7.0 | 36.0 | 16/17 | | | | 10.4 | | | | | | | | | | .22 | 12.44 | |
| 12 | 26/ 4 | 815 | 1.30 | 42 | 24.0 | 9.0 | 30.0 | 15/16 | | | | 10.1 | | | | | | | | | | .30 | 7.07 | |
| 13 | 27/ 4 | 900 | 1.10 | 34 | 10.5 | 6.0 | 9.0 | 6/9 | | | | 10.8 | 15 | 170 | .30 | | 6.00 | | 12.50 | | | .49 | .94 | |
| 14 | 28/ 4 | 900 | 1.13 | 46 | 12.0 | 6.0 | 12.0 | 4/9 | 19.0 | 2 | | 11.8 | 11 | 1600 | 1.35 | | 9.00 | .75 | 13.00 | | | .41 | 1.69 | |

REMARKS

# ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

## Drilling Mud Properties Record

MUD SYSTEM GYP/LIGNOSULPHONATE

WELL NAME 6610/7-1 AREA TRAENABANKEN
OPERATOR STATOIL RIG. NEPTUNO NORDRAUG
ENGINEERS VASTVEIT/FOLKVORD/TORGERSEN

| Day No. | DATE | DEPTH | MUD PROPERTIES | | | | | | | | | | | | | | | | | | | | | OPERATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEET □ METERS □ | DENSITY PPG □ SG □ | VISCOSITY | | | | GELS | FLUID LOSS 30 Min cc's | CAKE 32 nds | H.T.H.P. cc's | pH | Filtrate Analysis | | | RETORT | | % SAND | BENTONITE #/BBL | POTASH #/BBL | POLYMER #/BBL | "N" | "K" | |
| | | | | sec/qt | A.V. cps | P.V. cps | Y.P. #/100 sq.ft. | 0 / 10 | | | | | Cl⁻ ppm X 1000 | Ca. ++ ppm T.H. | Pf | % OIL | % SOLIDS CORR. | | | | | | | |
| | 1983 | METER | SG | | | | | | | | | | | | | | | | | | | | | |
| 15 | 29/ 4 | 1018 | 1.14 | 46 | 18.0 | 12.0 | 12.0 | 4 / 40 | 12.0 | 2 | | 11.5 | 7 | 1280 | .30 | | 7.00 | | 19.00 | | | .58 | .86 | |
| 16 | 30/ 4 | 1200 | 1.29 | 58 | 20.5 | 12.0 | 17.0 | 13 / 70 | 13.0 | 2 | | 10.1 | 10 | 1800 | .15 | | 12.00 | | 25.00 | | | .50 | 1.68 | |
| 17 | 1/ 5 | 1260 | 1.45 | 50 | 20.0 | 13.0 | 14.0 | 10 / 58 | 16.0 | 2 | | 9.5 | 12 | 2040 | .15 | | 18.00 | | 25.00 | | | .57 | 1.07 | |
| 18 | 2/ 5 | 1265 | 1.45 | 48 | 20.0 | 15.0 | 11.0 | 8 / 60 | 15.0 | 2 | | 9.6 | 13 | 2160 | .10 | | 18.00 | | 25.00 | | | .66 | .61 | |
| 19 | 3/ 5 | 1265 | 1.45 | 54 | 24.5 | 17.0 | 15.0 | 14 / 70 | 15.0 | 2 | | 10.2 | 12 | 2200 | .20 | | 18.00 | | 25.00 | | | .61 | .96 | |
| 20 | 4/ 5 | 1450 | 1.40 | 48 | 23.0 | 17.0 | 12.0 | 9 / 60 | 9.0 | 2 | | 10.2 | 13 | 2400 | .20 | | 17.00 | .25 | 23.00 | | | .67 | .65 | |
| 21 | 5/ 5 | 1642 | 1.50 | 49 | 25.0 | 18.0 | 14.0 | 7 / 50 | 10.0 | 2 | | 10.2 | 15 | 2440 | .20 | | 18.00 | | 3.20 | | | .64 | .82 | |
| 22 | 6/ 5 | 1795 | 1.50 | 49 | 23.5 | 15.0 | 17.0 | 15 / 42 | 10.0 | 2 | | 10.4 | 16 | 2000 | .15 | 0.0 | 18.00 | .25 | 22.00 | | | .55 | 1.36 | |
| 23 | 7/ 5 | 1896 | 1.50 | 45 | 21.5 | 15.0 | 13.0 | 9 / 48 | 9.2 | 2 | | 10.7 | 15 | 1960 | .20 | 0.0 | 17.00 | | 21.00 | | | .62 | .82 | |
| 24 | 8/ 5 | 2006 | 1.50 | 45 | 20.0 | 14.0 | 12.0 | 6 / 46 | 8.2 | 1 | | 10.6 | 15 | 1880 | .20 | | 18.00 | | 20.00 | | | .62 | .75 | |
| 25 | 9/ 5 | 2089 | 1.50 | 46 | 23.0 | 17.0 | 12.0 | 5 / 36 | 7.8 | 1 | | 10.4 | 15 | 2100 | .15 | | 18.00 | | 20.00 | | | .67 | .65 | |
| 26 | 10/ 5 | 2115 | 1.50 | 48 | 24.0 | 18.0 | 12.0 | 5 / 40 | 7.6 | 1 | 16.0 | 10.5 | 15 | 1960 | .15 | | 18.00 | | 20.00 | | | .68 | .63 | |
| 27 | 11/ 5 | 2115 | 1.50 | 51 | 23.0 | 17.0 | 12.0 | 4 / 38 | 7.6 | 1 | | 10.3 | 15 | 1920 | .15 | | 18.00 | | 20.00 | | | .67 | .65 | |
| 28 | 12/ 5 | 2115 | 1.50 | 54 | 25.5 | 18.0 | 15.0 | 8 / 60 | 7.5 | 1 | 15.0 | 10.8 | 15 | 1920 | .15 | | 18.00 | | 2.90 | | | .63 | .92 | |

REMARKS

# ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

## Drilling Mud Properties Record

MUD SYSTEM LIGNO/LIGNITE

WELL NAME 6610/7-1 AREA TRAENABANKEN

OPERATOR STATOIL RIG. NEPTUNO NORDRAUG

ENGINEERS TORGERSEN/PARSONS/VASTVEIT

| Day No. | DATE | DEPTH | MUD PROPERTIES | | | | | | | | | | | | | | | | | | | | | | OPERATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | VISCOSITY | | | | GELS | | | | | | | | Filtrate Analysis | | | RETORT | | | | | | | |
| | | FEET □ METERS □ | DENSITY PPG □ SG □ | sec/qt | A.V. cps | P.V. cps | Y.P. #/100 sq.ft. | 0 / 10 | FLUID LOSS 30 Min cc's | CAKE 32 nds | H.T.H.P. cc's | pH | Cl⁻ ppm X 1000 | Ca. ++ ppm T.H. | Pf | % OIL | % SOLIDS CORR. | % SAND | BENTONITE #/BBL | POTASH #/BBL | POLYMER #/BBL | "N" | "K" | |
| | 1983 | METER | SG | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 14/ 5 | 2174 | 1.23 | 42 | 16.5 | 11.0 | 11.0 | 3/15 | 6.8 | 1 | 20.0 | 11.0 | 15 | 1280 | .50 | | 9.00 | | 18.00 | | | .58 | .78 | | |
| 31 | 15/ 5 | 2240 | 1.23 | 47 | 19.0 | 14.0 | 10.0 | 3/11 | 5.4 | 1 | 16.0 | 11.0 | 15 | 1200 | .40 | | 9.00 | | 18.00 | | | .66 | .55 | | |
| 32 | 16/ 5 | 2334 | 1.24 | 52 | 22.0 | 16.0 | 12.0 | 3/11 | 5.2 | 1 | 16.0 | 10.4 | 14 | 1320 | .20 | | 9.00 | | 18.00 | | | .65 | .68 | | |
| 33 | 17/ 5 | 2432 | 1.24 | 52 | 21.0 | 16.0 | 10.0 | 2/13 | 4.8 | 1 | 16.0 | 10.6 | 15 | 1080 | .20 | | 9.00 | | 19.00 | | | .69 | .50 | | |
| 34 | 18/ 5 | 2558 | 1.23 | 51 | 22.0 | 16.0 | 12.0 | 3/12 | 4.8 | 1 | 16.0 | 10.8 | 14 | 800 | .20 | | 9.00 | | 20.00 | | | .65 | .68 | | |
| 35 | 19/ 5 | | 1.23 | 52 | 20.5 | 16.0 | 11.0 | 2/11 | 4.8 | 2 | 16.0 | 10.8 | 14 | 680 | .20 | | 9.00 | | 20.00 | | | .67 | .59 | | |
| 36 | 20/ 5 | 2663 | 1.23 | 51 | 19.0 | 14.0 | 10.0 | 3/15 | 4.8 | 1 | 16.0 | 10.6 | 14 | 760 | .20 | | 9.00 | | 20.00 | | | .66 | .55 | | |
| 37 | 21/ 5 | 2687 | 1.23 | 54 | 22.5 | 16.0 | 13.0 | 3/17 | 4.6 | 1 | 14.0 | 10.5 | 15 | 760 | .20 | | 9.00 | | 20.00 | | | .63 | .78 | | |
| 38 | 22/ 5 | 2717 | 1.27 | 55 | 21.0 | 15.0 | 12.0 | 3/14 | 4.5 | 1 | 13.5 | 10.5 | 13 | 680 | .15 | | 10.00 | | 19.00 | | | .64 | .71 | | |
| 39 | 23/ 5 | 2780 | 1.23 | 57 | 23.5 | 17.0 | 13.0 | 3/14 | 4.5 | 1 | 13.0 | 10.9 | 13 | 600 | .25 | | 10.00 | | 20.00 | | | .65 | .75 | | |
| 40 | 24/ 5 | 2924 | 1.23 | 53 | 20.5 | 15.0 | 11.0 | 2/11 | 4.5 | 1 | 13.5 | 10.6 | 12 | 480 | .25 | | 10.00 | | 20.00 | | | .66 | .61 | | |
| 41 | 25/ 5 | 2949 | 1.23 | 51 | 19.0 | 14.0 | 10.0 | 2/9 | 4.4 | 1 | 14.0 | 10.6 | 12 | 400 | .20 | | 10.00 | | 20.00 | | | .66 | .55 | | |
| 42 | 26/ 5 | 3022 | 1.23 | 54 | 19.5 | | 11.0 | 2/10 | 4.4 | 1 | 14.0 | 10.8 | 12 | 280 | .30 | | 10.00 | .25 | 20.00 | | | | | | |
| 43 | 27/ 5 | | 1.23 | 52 | 21.0 | 16.0 | 10.0 | 3/9 | 4.6 | 1 | 12.0 | 10.5 | 11 | 220 | .25 | | 11.00 | | 19.00 | | | .69 | .50 | | |

REMARKS

# ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

## Drilling Mud Properties Record

MUD SYSTEM LIGNO/LIGNITE

WELL NAME 6610/7-1 AREA TRAENABANKEN
OPERATOR STATOIL RIG. NEPTUNO NORDRAUG
ENGINEERS TORGERSEN/PARSONS/VASTVEIT

| Day No. | DATE 1983 | DEPTH FEET □ METERS □ METER | MUD PROPERTIES: DENSITY PPG □ SG □ SG | VISCOSITY sec/qt | A.V. cps | P.V. cps | Y.P. #/100 sq.ft. | GELS 0 / 10 | FLUID LOSS 30 Min cc's | CAKE 32 nds | H.T.H.P. cc's | pH | Filtrate Analysis X 1000 Cl⁻ ppm | Filtrate Analysis T.H. Ca. ++ ppm | Filtrate Analysis Pf | RETORT % OIL | RETORT % SOLIDS CORR. | % SAND | BENTONITE #/BBL | POTASH #/BBL | POLYMER #/BBL | "N" | "K" | OPERATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | 13/ 5 | 2119 | 1.23 | 43 | 16.5 | 11.0 | 11.0 | 6 / 42 | 10.4 | 2 | | 10.4 | 16 | 1520 | .15 | | 10.00 | | 18.00 | | | .58 | .78 | |
| 30 | 14/ 5 | 2174 | 1.23 | 42 | 16.5 | 11.0 | 11.0 | 3 / 15 | 6.8 | 1 | 20.0 | 11.0 | 15 | 1280 | .50 | | 9.00 | | 18.00 | | | .58 | .78 | |
| 31 | 15/ 5 | 2240 | 1.23 | 47 | 19.0 | 14.0 | 10.0 | 3 / 11 | 5.4 | 1 | 16.0 | 11.0 | 15 | 1200 | .40 | | 9.00 | | 18.00 | | | .66 | .55 | |
| 32 | 16/ 5 | 2334 | 1.24 | 52 | 22.0 | 16.0 | 12.0 | 3 / 11 | 5.2 | 1 | 16.0 | 10.4 | 14 | 1320 | .20 | | 9.00 | | 18.00 | | | .65 | .68 | |
| 33 | 17/ 5 | 2432 | 1.24 | 52 | 21.0 | 16.0 | 10.0 | 2 / 13 | 4.8 | 1 | 16.0 | 10.6 | 15 | 1080 | .20 | | 9.00 | | 19.00 | | | .69 | .50 | |
| 34 | 18/ 5 | 2558 | 1.23 | 51 | 22.0 | 16.0 | 12.0 | 3 / 12 | 4.8 | 1 | 16.0 | 10.8 | 14 | 800 | .20 | | 9.00 | | 20.00 | | | .65 | .68 | |
| 35 | 19/ 5 | | 1.23 | 52 | 20.5 | 16.0 | 11.0 | 2 / 11 | 4.8 | 2 | 16.0 | 10.8 | 14 | 680 | .20 | | 9.00 | | 20.00 | | | .67 | .59 | |
| 36 | 20/ 5 | 2663 | 1.23 | 51 | 19.0 | 14.0 | 10.0 | 3 / 15 | 4.8 | 1 | 16.0 | 10.6 | 14 | 760 | .20 | | 9.00 | | 20.00 | | | .66 | .55 | |
| 37 | 21/ 5 | 2687 | 1.23 | 54 | 22.5 | 16.0 | 13.0 | 3 / 17 | 4.6 | 1 | 14.0 | 10.5 | 15 | 760 | .20 | | 9.00 | | 20.00 | | | .63 | .78 | |
| 38 | 22/ 5 | 2717 | 1.27 | 55 | 21.0 | 15.0 | 12.0 | 3 / 14 | 4.5 | 1 | 13.5 | 10.5 | 13 | 680 | .15 | | 10.00 | | 19.00 | | | .64 | .71 | |
| 39 | 23/ 5 | 2780 | 1.23 | 57 | 23.5 | 17.0 | 13.0 | 3 / 14 | 4.5 | 1 | 13.0 | 10.9 | 13 | 600 | .25 | | 10.00 | | 20.00 | | | .65 | .75 | |
| 40 | 24/ 5 | 2924 | 1.23 | 53 | 20.5 | 15.0 | 11.0 | 2 / 11 | 4.5 | 1 | 13.5 | 10.6 | 12 | 480 | .25 | | 10.00 | | 20.00 | | | .66 | .61 | |
| 41 | 25/ 5 | 2949 | 1.23 | 51 | 19.0 | 14.0 | 10.0 | 2 / 9 | 4.4 | 1 | 14.0 | 10.6 | 12 | 400 | .20 | | 10.00 | | 20.00 | | | .66 | .55 | |
| 42 | 26/ 5 | 3022 | 1.23 | 54 | 19.5 | | 11.0 | 2 / 10 | 4.4 | 1 | 14.0 | 10.8 | 12 | 280 | .30 | | 10.00 | .25 | 20.00 | | | | | |

REMARKS

# ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

## Drilling Mud Properties Record

MUD SYSTEM LIGNO/LIGNOSULPHONATE

WELL NAME 6610/7-1 AREA TRAENABANKEN

OPERATOR STATOIL RIG. NEPTUNO NORDRAUG

ENGINEERS VASTVEIT/FOLKVORD

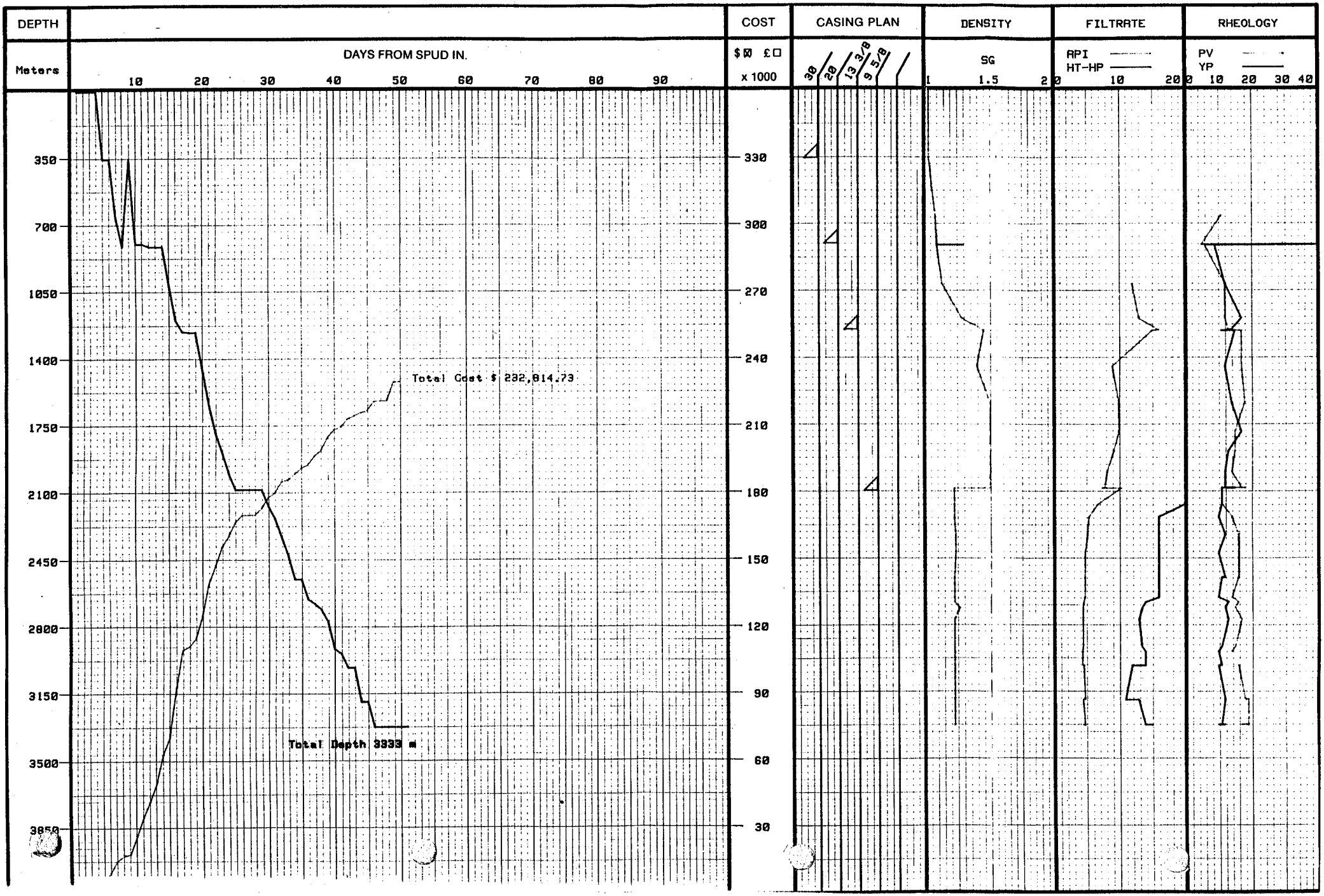
| Day No. | DATE | DEPTH | MUD PROPERTIES | | | | | | | | | | | | | | | | | | | | | | | OPERATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEET □ METERS □ | DENSITY PPG □ SG □ | VISCOSITY | | | | GELS | FLUID LOSS 30 Min cc's | CAKE 32 nds | H.T.H.P. cc's | pH | Filtrate Analysis | | | RETORT | | | | | | | | | | |
| | | | | sec/qt | A.V. cps | P.V. cps | Y.P. #/100 sq.ft. | 0 / 10 | | | | | Cl⁻ ppm X 1000 | Ca ++ ppm T.H. | Pf | % OIL | % SOLIDS CORR. | % SAND | BENTONITE #/BBL | POTASH #/BBL | POLYMER #/BBL | "N" | "K" | |
| | 1983 | METER | SG | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | 27/ 5 | | 1.23 | 52 | 21.0 | 16.0 | 10.0 | 3 / 9 | 4.6 | 1 | 12.0 | 10.5 | 11 | 220 | .25 | | 11.00 | | 19.00 | | | .69 | .50 | | | |
| 44 | 28/ 5 | 3202 | 1.23 | 54 | 24.0 | 18.0 | 12.0 | 3 / 14 | 4.8 | 1 | 11.0 | 10.4 | 12 | 240 | .15 | | 11.00 | | 20.00 | | | .68 | .63 | | | |
| 45 | 29/ 5 | | 1.23 | 54 | 25.0 | 19.0 | 12.0 | 3 / 17 | 4.5 | 1 | 13.0 | 10.1 | 12 | 320 | .15 | | 11.00 | | 22.00 | | | .69 | .61 | | | |
| 46 | 30/ 5 | 3333 | 1.23 | 54 | 24.5 | 19.0 | 11.0 | 3 / 17 | 4.8 | 1 | 14.0 | 10.2 | 13 | 320 | .20 | | 11.00 | | 21.00 | | | .71 | .53 | | | |
| 47 | 31/ 5 | | 1.23 | 58 | 24.0 | 18.0 | 12.0 | 2 / 17 | 4.6 | 1 | 14.0 | 10.5 | 12 | 260 | .25 | | 11.00 | | 21.00 | | | .68 | .63 | | | |
| 48 | 1/ 6 | | 1.23 | 52 | 22.0 | 17.0 | 10.0 | 2 / 15 | 4.8 | 1 | 14.0 | 10.1 | 12 | 280 | .20 | | 11.00 | | 21.00 | | | .70 | .49 | | | |
| 49 | 2/ 6 | | 1.23 | 58 | 21.0 | 17.0 | 10.0 | 3 / 17 | 4.7 | 1 | 15.0 | 9.8 | 12 | 260 | .15 | | | | 20.00 | | | .70 | .49 | | | |
| 50 | 3/ 6 | | 1.23 | 59 | 24.5 | 19.0 | 11.0 | 3 / 20 | 4.8 | 1 | 15.0 | 10.5 | 12 | 260 | .35 | | 10.00 | | 20.00 | | | .71 | .53 | | | |
| 51 | 4/ 6 | | 1.23 | 61 | 25.0 | 19.0 | 12.0 | 3 / 24 | 5.0 | 1 | 15.0 | 10.4 | 12 | 280 | .25 | | 10.00 | | 19.00 | | | .69 | .61 | | | |
| | | | | | | | | / | | | | | | | | | | | | | | | | | | |
| | | | | | | | | / | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | / | | | | | | | | | | | | | | | | | | |

REMARKS

ANCHOR DRILLING FLUIDS AS

# GRAPHI-CAP

OPERATOR: STATOIL PAGE NO: 1
WELL NAME: 6610/7-1 SPUD IN DATE: 15/4-83
CONTRACTOR: ROSS DRILLING RIG: NEPTUNO NORDRAUG



# III 11 EQUIPMENT FAILURES

III 11 Equipment Failures.

1) During rig move, the deadline anchor were magnafluxed and a crack approximately 2 cm deep were found in the main body. This was Type -EB Wire Line Anchor, serial no. T-4650.

This anchor was changed out with the anchor on board "Ross Rig".

More frequent/periodical inspection of dead line anchor is recommended.

2) A break were found on NPS compensator line from monkeyboard to drill string compensator.

As the line is not protected, it is easy that people accidently can cause a break in the line while working on other hoses going from monkey board to the drill string compensator. The incident happened 21th of May 1983 and caused 1/2 hours downtime.

3) A bracket on the water hose for cooling of drawwork brake came loose and twisted off the hose. This caused 2 hours downtime the 25th of May 1983.

4) 2 riserjoint lift nipples were found to have several cracks in welds. These were detected during routime inspection between two wells.

5) Float in 30" casing did not hold. Had to wait on cement for 6 hours before running tool could be backed out.

6) Due to several missrun in the 17 1/2" section, Sperry Sun directional survey instrument kit were changed out. Eastman Whipstock was used during the rest of the well with no major problems. The whole case of survey instrument should be changed out every second month.

7) When pin connector was pulled, inspection of it showed excessive wear inside pin connector balljoint and lower riser package. The wear was on one side, and it was obvious that the rig had been off location while drilling pilothole/underreamming.

The balljoint had to be completely stripped down and rebuilt. On the pin connector itself there was no damage, but the wear ring was completely worn out.

# IV MARINE REPORT

1) NAVIGATION- WEATHER- AND ANCHORTENSION REPORT
2) LOCATION WEATHER DATA SUMMARY

NAVIGATION REPORT

RIG MOVE OF "NEPTUNO NORDRAUG" TO WELL 6610/7-1.

1. Final position (ED 1950)

66° 17' 32.82"N, 10° 16' 52,92"E (revised 24-05.83)

Accuracy: +/- 5 meters (Translocation)

Rig heading: 225°

Deviation from intended position: 14m - 044°

2. Observed Decca Main Chain readings

Chain: Helgeland 9E

Red : E 05.8
Green : E 39.4
Purple: A 51.3

3. Navigation/positioning method

a) Navigation:

Syledis navigation system with HP 9845 computer.
Contractor: A/S Geoteam, Oslo
Personnel: Erik Vigen

4. Duration of the rig move.

| | |
|---|---|
| Rig left 34/10-16 | : 13 April 1983 at 14.00 hours |
| Equipment and personnel onboard | : 14 April 1983 at 11.30 hours |
| Start run in, 2 km from location | : 15 April 1983 at 04.30 hours |
| Dropped first anchor (no. 4) | : 15 April 1983 at 05.45 hours |

Stopped anchorhandling due bad weather : 16 April 1983 at 00.55 hours
Commenced anchorhandling again: 17 April 1983 at 09.55 hours
Dropped last anchor (no. 5) : 17 April 1983 at 16.10 hours
All anchors except no. 5 tensioned to 160 tons : 17 April 1983 at 19.15 hours
Position ready for drilling after repositioned rig to avoid slope in iceberg scar. : 18 April 1983 at 12.45 hours

5. Techniques/problems

The operation was performed according to Statoil's procedures without navigational problems.

The anchorhandling was delayed several hours as anchorchain no. 5 had to be replaced, together with bad weather and anchor no. 5 slipping.

The final position of the rig was fixed by satelite using the translocation method. A geodetic point onshore at NTH, Trondheim was used for the fixed point satelite receiver.

Discreapency between Syledis position and Satnav. position was 8 m - 281°. (Syledis position West of Sat.nav. position).

6. Problems during anchorhandling

7 primary anchors and 3 piggy-back anchors were set in 19 hours before weather deteriorated. WOW for 20 hours and than set 3 more piggy-back anchors. The sea was at this moment too rough to change anchor chain no. 5 (instead of changing all anchors at the same time it was agreed to change one anchor chain during each rig move). WOW for 8.5 hours. Used 8 hours to change anchor chain no. 5. Reset and piggy- backed anchor no. 4.

Immediately after setting anchor no. 5, all anchors were pulltested to 159 tons. Anchor no. 5 slipped. Reset anchor no. 5. Started slipping with 140 tons pull. Let anchor no. 5 soak for 6 hours. Still slipping. Got permission from DNV to start drilling before all anchors were pulltested. Piggy-backed anchor no. 5. Pulltested anchor no. 5 to 150 tons prior to running riser.

No problems occured during anchorhandling after the well was plugged and abandoned.

7. Weather and anchortension 6610/7-1

"Neptuno Nordraug" drilled this well from 13th of April and till 19th of June 1983.

The rig was shut down 28.5 hours due to weather (all of it during anchorhandling). Maximum anchor tension was 165 tons on anchor no. 7 on the 18th of April. At that time we had 13 m/s wind in the direction SSW together with 3 m waves in the same direction.

Maximum weather data occured the day before with 22 m/s wind and 6 m waves from SSW.

During the whole periode no typical wind and wave direction was noted.

# LOCATION WEATHER DATA SUMMARY

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WELL: 6610/7-1 RIG: Neptuno Nordraug

TIME PERIOD: FROM 12/4. TO 30./4 -19 83

READINGS PR. MONTH: 19 readings in April 1983 (1 per day)

## WIND

| m/sec. / dir. | 0 – 5 | 5 – 10 | 10 – 15 | 15 – 20 | 20 – 25 | 25 – 30 | > 30 | total |
|---|---|---|---|---|---|---|---|---|
| N | | | | | | | | |
| NNE | | 1 | 1 | | | | | 2 |
| NE | | 2 | 1 | | 1 | | | 4 |
| ENE | | | | | | | | |
| E | 1 | | | | | | | 1 |
| ESE | | | | | | | | |
| SE | | | | | | | | |
| SSE | | 1 | 1 | | | | | 2 |
| S | | 1 | | 1 | | | | 2 |
| SSW | | | 3 | | 1 | | | 4 |
| SW | 1 | | 1 | | | | | 2 |
| WSW | | | | | | | | |
| W | 1 | | | | | | | 1 |
| WNW | | | | | | | | |
| NW | 1 | | | | | | | 1 |
| NNW | | | | | | | | |
| total | 4 | 5 | 7 | 1 | 2 | | | 19 / 19 |

## WAVE

| height (m) / dir. | 0 – 1 | 1 – 2 | 2 – 3 | 3 – 5 | 5 – 7 | 7 – 10 | > 10 | total |
|---|---|---|---|---|---|---|---|---|
| N | | | | | | | | |
| NNE | | 1 | | | | | | 1 |
| NE | 2 | 2 | | 1 | | | | 5 |
| ENE | | | | | | | | |
| E | 1 | | | | | | | 1 |
| ESE | | | | | | | | |
| SE | 1 | | | | | | | 1 |
| SSE | | 2 | | | | | | 2 |
| S | | 1 | | 1 | | | | 2 |
| SSW | | | 2 | 1 | 1 | | | 4 |
| SW | 1 | | 1 | | | | | 2 |
| WSW | | | | | | | | |
| W | | 1 | | | | | | 1 |
| WNW | | | | | | | | |
| NW | | | | | | | | |
| NNW | | | | | | | | |
| total | 5 | 7 | 3 | 3 | 1 | | | 19 / 19 |

# LOCATION WEATHER DATA SUMMARY

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Den norske stats oljeselskap a.s

WELL: 6610/7-1 RIG: Neptuno Nordraug

TIME PERIOD: FROM 1/5 TO 31/5 -19 83

READINGS PR. MONTH: 1 reading per day, 31 days

## WIND

| m/sec. / dir. | 0 – 5 | 5 – 10 | 10 – 15 | 15 – 20 | 20 – 25 | 25 – 30 | > 30 | total |
|---|---|---|---|---|---|---|---|---|
| N | 1 | 2 | | | | | | 3 |
| NNE | | | | | | | | |
| NE | 1 | 5 | | | | | | 6 |
| ENE | | | | | | | | |
| E | | | 4 | | | | | 4 |
| ESE | | 1 | 1 | | | | | 2 |
| SE | | 1 | 1 | | | | | 2 |
| SSE | | | 1 | | | | | 1 |
| S | | 3 | 1 | | | | | 4 |
| SSW | | | 2 | | | | | 2 |
| SW | | | 1 | 1 | | | | 2 |
| WSW | | 1 | | | | | | 1 |
| W | 1 | | | | | | | 1 |
| WNW | | | | | | | | |
| NW | 2 | 1 | | | | | | 3 |
| NNW | | | | | | | | |
| total | 5 | 14 | 11 | 1 | | | | 31 / 31 |

## WAVE

| height (m) / dir. | 0 – 1 | 1 – 2 | 2 – 3 | 3 – 5 | 5 – 7 | 7 – 10 | > 10 | total |
|---|---|---|---|---|---|---|---|---|
| N | 2 | 2 | | | | | | 4 |
| NNE | | | | | | | | |
| NE | 3 | 2 | | | | | | 5 |
| ENE | | | | | | | | |
| E | 1 | 2 | 1 | | | | | 4 |
| ESE | 1 | | 1 | | | | | 2 |
| SE | | 2 | 1 | 1 | | | | 4 |
| SSE | | | | | | | | |
| S | | 4 | | 1 | | | | 5 |
| SSW | | 2 | | | | | | 2 |
| SW | | | | 1 | | | | 1 |
| WSW | | | 1 | | | | | 1 |
| W | 1 | | | | | | | 1 |
| WNW | | | | | | | | |
| NW | 2 | | | | | | | 2 |
| NNW | | | | | | | | |
| total | 10 | 14 | 4 | 3 | | | | 31 / 31 |

## LOCATION WEATHER DATA SUMMARY

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WELL: 6610/7-1 RIG: Neptuno Nordraug

TIME PERIOD: FROM 1/6 TO 19.6. -19 83

READINGS PR. MONTH: 1 reading per day, 19 days

### WIND

| m/sec. / dir. | 0 – 5 | 5 – 10 | 10 – 15 | 15 – 20 | 20 – 25 | 25 – 30 | > 30 | total |
|---|---|---|---|---|---|---|---|---|
| N | 1 | | | | | | | 1 |
| NNE | 1 | | 1 | | | | | 2 |
| NE | | | | 1 | | | | 1 |
| ENE | | | | | | | | |
| E | | | | | | | | |
| ESE | | | | | | | | |
| SE | | | | | | | | |
| SSE | | | | | | | | |
| S | | 1 | | | | | | 1 |
| SSW | | 1 | 1 | 3 | | | | 5 |
| SW | | 1 | 1 | | | | | 2 |
| WSW | | 2 | 2 | | | | | 4 |
| W | | 1 | | | | | | 1 |
| WNW | | | | | | | | |
| NW | 1 | 1 | | | | | | 2 |
| NNW | | | | | | | | |
| total | 3 | 7 | 5 | 4 | | | | 19 / 19 |

### WAVE

| height (m) / dir. | 0 – 1 | 1 – 2 | 2 – 3 | 3 – 5 | 5 – 7 | 7 – 10 | > 10 | total |
|---|---|---|---|---|---|---|---|---|
| N | 1 | | | | | | | 1 |
| NNE | 1 | | | | | | | 1 |
| NE | | 2 | | | | | | 2 |
| ENE | | | | | | | | |
| E | | | | | | | | |
| ESE | | | | | | | | |
| SE | | | | | | | | |
| SSE | | | | | | | | |
| S | | 1 | | | | | | 1 |
| SSW | | | 3 | | | | | 3 |
| SW | 1 | | | | | | | 1 |
| WSW | 1 | 1 | 1 | 1 | | | | 4 |
| W | 1 | 2 | | | | | | 3 |
| WNW | | | | | | | | |
| NW | 1 | 1 | 1 | | | | | 3 |
| NNW | | | | | | | | |
| total | 6 | 7 | 5 | 1 | | | | 19 / 19 |

# V PETROPHYSICAL EVALUATION

## PETROPHYSICAL EVALUATION

Data used: ISF/SONIC runs 4 and 5
LDT/CNL run 4

Data quality: The GR on LDT/CNL run no. 4 and ISF/SONIC run no. 5 is about 10 API units higher then ISF/SONIC run no. 3. The calibration on GR on ISF/SONIC run no. 4 is good while the calibration on run no. 5 is out of range. This explains the relative high GR readings on the final logs.

## FORMATION WATER RESISTIVITY

Depth 3295 m SP = -45 mV Temp = 199°F
Rmf = 0.097 ohm m at 199°F

Rw = 0.03 ohm m ~ 95 000 ppm NaCl

Depth 2748 m SP = -26 mV Temp = 178°F
Rmf = 0.106 ohm m at 178°F

Rw = 0.052 ohm m ~ 55 000 ppm NaCl

The salinity of the formation water seems to be different above and below the coaly shale sequence 2915-3000 m. This is also reflected by the RFT-pressure plot.

## EVALUATION

GR and LDT/CNL crossplot was used for shale volume calculation with the following parameters:

$\rho_{b\ shale}$ = 2.60 gm/cc
$\phi_{N\ shale}$ = 35 L.P.U.
$GR_{sand}$ = 40 API
$GR_{shale}$ = 120 API

Porosity was calculated using LDT/CNL with a shaly sand model.

Saturation was calculated using Indonesia equation with the following parameters:

| | |
|---|---|
| Cementation factor | m = 2 |
| Saturation exponent | n = 2 |
| Lithology factor | a = 1 |

RESULTS

| | | |
|---|---|---|
| Interval 2650 - 2915 m RKB | GROSS | = 265 m |
| | Net Sand | = 121.75 |
| | $\emptyset_{ave}$ | = 18.5 |
| | N/G | = 0.46 |
| Interval 2915 - 3333 m RKB | GROSS | = 418 m |
| | Net Sand | = 176.5 |
| | $\emptyset_{ave}$ | = 16.6 |
| | N/G | = 0.42 |

Cut-off: VSH > 40%
PHIF < 12%

DISCUSSION

As at Tromsøflaket, the resistivity in the shales are high, hence high hydrocarbon saturation can be calculated in the shales. The clean sandstones calculates in the order of 100% water.

RFT - SUMMARY

21 pressure readings were measured from 2672.5 to 3110 m RKB. One segregated sample was taken at 2748 m. No pressures was measured below 3110 m due to operational problems of the tool. The sand from 2652 - 2675 m was very tight, hence the sample was taken lower.

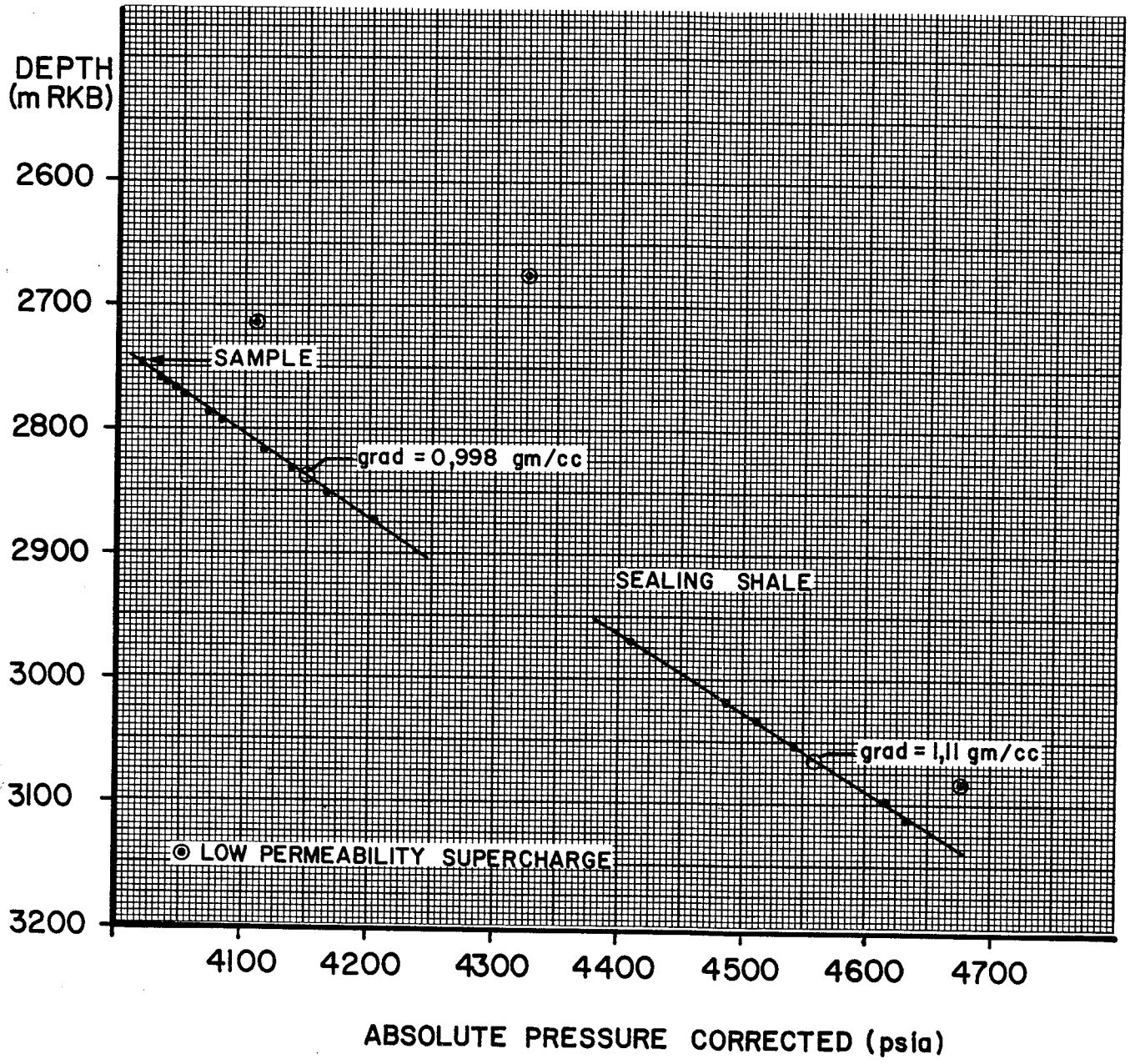
The RFT-plot indicates two water gradients in the well (see plot).

The sample consisted of mud filtrate:

| | | 2 3/4 gal | 1 gal | mudfiltrate |
|---|---|---|---|---|
| cl-, ppm | : | 11000 | 10500 | 13000 |
| ca+, ppm | : | 160 | | 260 |
| density, gm/cc | : | | 1.015 | |
| ph | : | | 7.8 | 10.5 |

1 l sample of 1 gal chamber was saved for analysis together with samples of mud and mudfiltrate.

# 6610/7-1 RFT· MEASUREMENTS



# VI ENCLOSURES

statoil ELF / AGIP

# 9605/7-1
## COMPLETION LOG
### SCALE 1:500

COORDINATES: ED50 UTM ZONE 31
N 6° 00' 00.00" E

KB: 25.0 (ETD: 25.0m)
FIELD: ELDFISK
LOCATION: TOR FM. OPERA TROUGH
WELL TYPE: DEV. / EXPL.
TD: MD 3650.0 (ETD: 3675.0m)
TVD: 3650.0 (ETD: 3675.0m)
RIG: SEDCO 704
CONTRACTOR: SEDCO FOREX
DRILLED: 1991-92
PRODUCTION: PRODUCING OIL/GAS/CONDENSATE
OPERATOR: STATOIL

CASING DATA:
20" @ 227.0
13 3/8" @ 1015.0
9 5/8" @ 2599.0

LOCATION MAP

WELL 9/5-1 AR

ACCEPTED SURVEY BY LICENCE IN THE OFFICIAL WELLBORE FORMATION DIRECTORY

LOG RUN

| RUN NO. | DATE | DEPTH DRILLER | DEPTH LOGGER | BOTTOM LOGGED INTERVAL | TOP LOGGED INTERVAL | CASING DRILLER | CASING LOGGER | BIT SIZE |
|---|---|---|---|---|---|---|---|---|
| 1 | 1991-12-31 | 1015.0 | 1015.0 | 1015.0 | 227.0 | 227.0 | 227.0 | 17 1/2" |
| 2 | 1992-01-01 | 2599.0 | 2599.0 | 2599.0 | 1015.0 | 1015.0 | 1015.0 | 12 1/4" |
| 3 | 1992-01-02 | 3650.0 | 3650.0 | 3650.0 | 2599.0 | 2599.0 | 2599.0 | 8 1/2" |

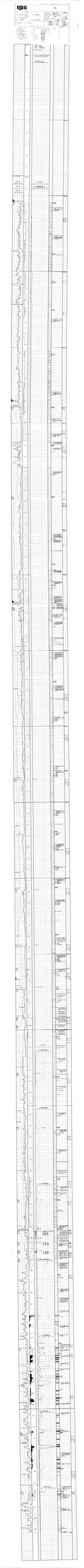
LITHOLOGY SYMBOLS

| | | | | | |
|---|---|---|---|---|---|
| Clay | Limestone | Dolomite | Chalk | Marl | |
| Sandstone | Conglomerate | Coal | Anhydrite | Salt | |
| Tuff | Lignite | Claystone | Coquina | Shale | |
| Basement | Siltstone | Marlstone | Calcareous Clay | Dolomitic Clay | |

| Sample | Core | Cuttings | Fluid Sample | Core Analysis | Geochemical |
|---|---|---|---|---|---|

| Age Scale | Lithostratigraphy | Biostratigraphy | Log Interpretation |
|---|---|---|---|
| 0 Ma - 100 Ma | Group | Zone | Lithology Log |
| 100 Ma - 1000 Ma | Formation | Subzone | Porosity Log |
| | Member | | Resistivity Log |

FORM NPT REVISED 1992 COMPLETION REPORT



STATOIL 6610/7-1 SPUDDED 18/4/83 LOGGED BY NORSK PETROLEUM SERVICES

