Exploration & Production Division
Exploration Department
District 1

statoil

Completion Report
Well 15/9-15
PL 046

Norsk Hydro

Esso

PL 046

STATOIL/ESSO/NORSK HYDRO

COMPLETION REPORT

WELL 15/9-15

TABLE OF CONTENTS

REPORT RESPONSIBILITY:
BOR: T.A. Normann
UND: J.M. Østby

I GENERAL INFORMATION

GENERAL INFORMATION

1. Well data record:

a) Well designation:	15/9-15
b) Well classification:	Wildcat
c) Well location:	15/9-My
i) Country:	Norway, North Sea
ii) Licence:	PL 046
iii) Latitude:	58° 18' 07.45" N
Longitude:	01° 55' 19.67" E
iv) Seismic location:	Shotpoint no. 147
	Line no. 8122 - 726
v) Water depth:	83 m
d) Rig data	
i) Rig name:	Ross Rig
ii) KBE:	25 m

2. Purpose of the well

The well was designed to test possible hydrocarbon accumulations in Paleocene and Mesozoic sandstones in the 15/9-My structure, and to give more information about the sand distribution in the area.

3. Results of the well

The Paleocene sandstone is missing in this well.

The Mesozoic sandstones produced gas and condensate.

Two production tests were performed in this well. (Details in chapter VI; RFT AND TEST SUMMARY).

4. Well history:

a) General:

i)	Spud date:	28th May, 1982
ii)	Rig released:	1st August, 1982
iii)	Status:	Plugged and abandoned

b) Contractors:

i)	Drilling platform:	Ross Rig
ii)	Drilling Contractor:	Ross Drilling Co. A/S
iii)	Cementing:	Dowell Schlumberger
iv)	Casing:	Stavanger Casing Crew
v)	Well testing:	Otis
vi)	Electric logging:	Schlumberger
vii)	Mud logging:	NPS
viii)	Mud contractor:	Promud
ix)	Supply boats:	Supply boat pool
x)	Helicopters:	Helikopter Service A/S
xi)	Rig position contractor:	Decca/Geoteam
xii)	Diving:	Scandive
xiii)	Conventional coring:	Christensen Diamond
xiv)	Core analysis:	Geco
xv)	Paleodating:	Robertson Research

c) Casing:

			Formation integrity test
i)	30" at	171.5 m	
	20" at	498 m	1.65 g/cc
	13 3/8" at	1178 m	1.68 g/cc
	9 5/8" at	2463 m	1.87 g/cc
	7" liner at	3199 m	
	TD at	3200 m	
			equiv. mud weight

d) Conventional coring (description attached)

CORE NO.	INTERVAL (m) (drillers depth)	CORR.INTERVAL (m) (loggers depth)	RECOVERY m	%
1	2805 - 2823.3	2807.8 - 2826.1	18.3	100
2	2823.3 - 2841.6	2826.1 - 2844.4	18.3	100
3	2841.6 - 2859.9	2844.4 - 2862.7	18.3	100
4	2859.9 - 2878.2	2862.7 - 2881.0	18.3	100

e) Sidewall cores: 120 were shot and 80 were recovered (See sidewall core description attached).

f. Mud Logging

The NPS CADT unit includes among others, the following data:

i) Drilling rate (ROP)
ii) Lithology
iii) Cutting gas
iv) Mud gas
v) Chromatograph
vi) H_2S detector
vii) Shale density

g) Electrical Logging:

Type of log	Run no.	Interval (m KB)
ISF/BHC-GR	1	172 - 512
	2	498 - 1191
ISF/BHC-MSFL-GR	1	1178 - 2471
	2	2463 - 2879
	3	2800 - 3201.5
LDT-GR	1	498 - 1191
LDT/CNL-GR	1	1178 - 2470
	2	2463 - 3202
DLL/MSFL/GR	1	2800 - 2950
HDT	1	2463 - 3202
GEODIP	1	2800 - 2950
RFT	1	2823 - 3090
CST	1	1287 - 2464
	2	2734 - 3189
	3	2670 - 3189
	4	2701 - 3194
CBL-GR	1	100 - 1172
CBL/VDL-GR	2	1050 - 2463
	3	2300 - 3139

h) Velocity Survey:

The velocity survey was conducted by Schlumberger
20 checkshots with levels from 175 m - 3200 m RKB

II GEOLOGICAL REPORT

GEOLOGICAL REPORT

1. Stratigraphy

a) Table of Chronostratigraphy: based on RRI's report (all depths in meters)

CHRONOSTRATIGRAPHIC TOPS	DEPTH (RKB)	DEPTH (MSL)
QUATERNARY		
Holocene/		
Pleistocene	108	(- 83)
TERTIARY		
Pliocene	660	(- 635)
Miocene	900	(- 875)
Oligocene	1220	(- 1195)
Eocene	1760	(- 1735)
Paleocene	2205	(- 2180)
Danian	2415	(- 2390)
CRETACEOUS		
Maastrichtian -		
Late Campanian	2458	(- 2433)
Early Campanian -		
?Santonian	2517	(- 2492)
Coniacian - Turonian	2598	(- 2573)
Turonian	2667	(- 2642)
Albian	2724	(- 2699)
Early Albian -		
Early Aptian	2733	(- 2708)
Barremian	2736	(- 2711)
Hauterivian	2745	(- 2720)
Ryazanian - Volgian	2751	(- 2726)
JURASSIC		
Kimmeridgian -		
Middle Oxfordian	2756	(- 2731)
Early Oxfordian	2810	(- 2785)
TRIASSIC	2821	(- 2796)
TD	3200	(- 3175)

b) Table of Lithostratigraphy (all depths in meters)

LITHOSTRATIGRAPHIC TOPS	DEPTH (RKB)	DEPTH (MSL)	THICKNESS
NORDLAND GROUP	108	(- 83)	1112
Utsira Formation	883.5	(- 858.5)	245.5
HORDALAND GROUP	1220	(- 1195)	988
Marstein Formation	1284	(- 1259)	11
Frigg Formation	2027	(- 2002)	57
ROGALAND GROUP	2208	(- 2183)	210
Balder Formation	2208	(- 2183)	35
Sele Formation	2243	(- 2218)	89
Lista Formation	2332	(- 2307)	86
CHALK GROUP	2418	(- 2393)	301
Tor Formation	2418	(- 2393)	188
Hod Formation	2606	(- 2581)	66
Plenus Marl Formation	2672	(- 2647)	47
CROMER KNOLL GROUP	2719	(- 2694)	32
HUMBER GROUP	2751	(- 2726)	70
Kimmeridge Clay Fm.	2751	(- 2726)	55
Heather Formation	2806	(- 2781)	15
"TRIASSIC GROUP"	2821?	(- 2796)	379+
Unit B	2821	(- 2796)	39.5
Unit A	2860.5	(- 2835.5)	85.5
Skagerrak Formation	2946	(- 2921)	145
Smith Bank Formation	3091	(- 3066)	109+
TD	3200	(- 3175)	

2. LITHOLOGICAL DESCRIPTION

a) General information:

Period Epoch Age	are partly based on log interpretation/ correlation and partly on biostratigrahic report
Lithology:	Description based on the samples and core description from the wellsite geologist.

Depositional environment: Based partly on earlier regional interpretation and partly on biostratigraphic report and core analysis.

b) Summary:

NORDLAND GROUP (108 - 1220 m RKB)

The Nordland Group extends from sea floor to the base of Miocene at 1220 m. Between 30" casing shoe and 300 m the lithology is mainly loose sand interbedded with some clay.

The sand is clear to milky white, orange and yellow, medium to very coarse grained, subrounded to rounded, becoming very fine to medium and poor sorted.

The clay is light grey to very dark grey, soft, sticky, soluble, calcareous and occasionally silty. Rock fragments and lignite are quite common, but also traces of pyrite, glauconite and shell fragments occur.

Further downwards, the sections between 300 m and 883.5 m (top Utsira Formation) and between 1129 m (base Utsira Formation) and 1220 m consist mostly of clay with very few sandstringers.

The clay is mostly light to medium grey, sometimes greenish grey or brownish grey, soft to firm, sticky, moderate to very calcareous and micromicaceous.

Traces of pyrite, lignite, shell fragments and other fossile fragments are common.

Utsira Formation (883.5 - 1129 m RKB)

The Utsira Formation consists of sand with beds of clay of variable thickness.

The sand is fine to medium occasionally coarse to very coarse, subrounded to rounded, poor to moderate sorted and micaceous.

The clay is as described for the clay just above Utsira Formation.

Traces of mica, glauconite, shell fragments and foraminifers are recognized.

Depositional environment:
Above top Utsira Formation - marine, inner shelf.
Below top Utsira Formation - marine, inner to outer shelf.

HORDALAND GROUP (1220 - 2208 m RKB)

The Hordaland Group is dominated by silty claystone and frequently interlayered limestone stringers with exceptions of Marstein and Frigg Formations.

The claystone is mostly light to medium grey occasionally medium brownish grey or light greenish grey, soft to firm, slightly calcareous, micromicaceous, microcarbonaceous and blocky to subfissile. Below 1950 m the claystone is more greenish grey and none calcareous.

The limestone is light brown, white to light grey and hard.

Traces of tuff, white to light grey with dark spots, are recognized below2150 m.

Traces of pyrite and glauconite are common in this group.

Marstein Formation (1284 - 1295 m RKB)

This formation consists of very fine to fine occasionally coarse sand. The grains are subangular to subrounded.

Traces of glauconite and fossile fragments occur in the formation.

Frigg Formation (2027 - 2059 m RKB)

The Frigg Formation consists of medium to coarse occasionally very fine to fine grained sandstone.

The grains are clear to milky white quartz, angular to subrounded and non calcareous.

Traces of pyrite, glauconite and mica are common in this formation.

Depositional environment: Marine, outer to upper bathyal.

ROGALAND GROUP (2208 - 2418 m RKB)

Balder Formation (2208 - 2243 m RKB)

The Balder Formation consists of claystone, some limestone stringers and traces of tuff.

The claystone is light grey to light greenish grey, brownish grey and medium to red brown. It is firm, blocky to subfissile, micromicaceous and non to slightly calcareous.

The limestone is light grey and hard, and the tuff is white to light grey with some dark spots, soft to firm and non calcareous.

Trace of pyrite occurs.

Depositional environment: Marine, outer shelf to upper bathyal.

Sele Formation (2243 - 2332 m RKB)

The Sele Formation consists of light grey to light greenish grey claystone and a few light grey and hard limestone stringers.

The claystone is firm, blocky to subfissile, micromicaceous, slightly silty and non calcareous.

Traces of tuff, pyrite and glauconite occur in the formation.

Depositional environment: Marine, outer shelf to upper bathyal.

Lista Formation (2332 - 2418 m RKB)

The Lista Formation consists of claystone with thin beds of sand and siltstone and some limestone stringers.

The claystone is as described for Sele Formation.

The sand consists of clear quartz, fine to medium grains. The grains are subangular to subrounded, loose and moderate sorted.

The siltstone is light brownish grey, firm, argillaceous and non calcareous.

The limestone is white sometimes brown, soft to firm and occasionally hard.

Traces of pyrite and glauconite occur in the formation.

Depositional environment: Marine, outer shelf to upper bathyal.

CHALK GROUP (2418 - 2719 m RKB)

Tor Formation (2418 - 2606 m RKB)

The Tor Formation consists of limestone/chalk with some very thin claystone laminaes.

The limestone/chalk is milky white, occasionally yellow to yellow brown, firm to moderate hard and occasionally slightly argillaceous.

The claystone laminaes are light yellow brown, firm, slightly silty, micromicaceous and non calcareous.

Depositional environment: Marine, inner to outer shelf.

Hod Formation (2606 - 2672 m RKB)

The Hod Formation consists of limestone with some very thin laminaes of claystone.

The limestone is white to light brown, slightly argillaceous and firm to moderate hard, occasionally hard.

The claystone laminaes are grey brown, occasionally light green, firm, subfissile, calcareous to very calcareous and sometimes very silty.

Depositional environment: Marine, inner to outer shelf.

Plenus Marl Formation (2672 - 2719 m RKB)

The Plenus Marl Formation consists of interbedded limestone and claystone with traces of sandstone, pyrite and glauconite.

The limestone is white to buff sometimes pink, firm, occasionally slightly crystalline, slightly to very argillaceous and marly.

The claystone is red brown, medium grey to light greyish green, firm and calcareous. It is grading to marl.

Depositional environment: Marine, inner to outer shelf.

CROMER KNOLL GROUP (2719 - 2751 m RKB)

The Cromer Knoll Group consists of interbedded limestone, claystone and some sandstone in the upper part.

The limestone and claystone are as described in the Plenus Marl Formation, but the claystone is changing to brick red to red brown colour, firm and very calcareous.

The sandstone consists of grey to green and clear quartz grains. The graines are very fine to medium, friable to moderate hard and calcareous cemented. The sandstone is grading to siltstone.

Depositional environment: Inner to outer shelf, with open marine influences.

HUMBER GROUP (2751 - 2821 m RKB)

Kimmeridge Clay Formation (2751 - 2806 m RKB)

The Kimmeridge Clay Formation consists of claystone/shale and limestonestringers.

The claystone/shale is dark grey to black and medium grey, firm to moderate hard, occasionally hard, sometimes subfissile, slightly calcareous and occasionally silty.

The limestone is white to buff, moderate hard and slightly argillaceous.

Traces of pyrite occurs.

Depositional environment: Marine, inner shelf with anaerobic/dysaerobic bottom conditions in the upper part, and marginal marine to inner shelf conditions in lower part.

Heather Formation (2806 - 2821 m RKB)

The Heather Formation consists of very argillaceous sandstone with some shale stringers.

The sandstone is very fine to medium occasionally coarse grains, moderate hard and partly calcareous cemented. The grains are subangular to subrounded and consist of clear to yellow quartz.

Depositional environment: Marine, inner shelf to marginal marine with strong terrestrial influence.

"TRIASSIC GROUP" (2821 - 3200 m (TD) RKB)

"Triassic Group" has been divided into 4 types of formations: Unit B, Unit A, Skagerrak Formation and Smith Bank Formation. No boundary is established between Triassic and Jurassic in this wells. The formations in this section are barren of palynomorfs and no exact dating has yet been done on Unit A nor Unit B.

Unit B (2821 - 2860.5 m RKB)

The Unit B consists of sandstone.

The quartzgrains are clear to milky white, medium to coarse, subangular to subrounded, friable to hard, well sorted and non to slightly calcareous cemented, sometimes dolomitic cemented.

Traces of glauconite and mica occur, also traces of kaolinite are found in the upper part.

Depositional environment: Marginal marine.

Unit A (2860.5 - 2946 m RKB)

The Unit A consists of sandstone, thin beds of shale/ claystone and a few limestone stringers.

The sandstone consists of clear, milky white and occasionally red brown quartz.

The grains are fine to coarse, loose, subangular to subrounded, well sorted and sometimes calcareous cemented.

The shale/claystone is medium grey to black, light green and red brown, firm to moderate hard, micromicaceous, slightly silty and slightly carbonaceous.

The limestone is white to buff and occasionally argillaceous.

Traces of pyrite and mica are common.

Depositional environment: Coastal alluvial plain.

Skagerrak Formation (2946 - 3091 m RKB)

The Skagerrak Formation consists of interbedded sandstone and shale/claystone.

The sandstone is very alike the one described in Unit A except that it is medium to coarse subangular to rounded, dolomitic cemented and sometimes hard.

The shale/claystone is as described for the Unit A.

Traces of pyrite, glauconite and mica occur in the formation.

Depositional environment: Terrestrial, fluvio to lacustrine.

Smith Bank Formation (3091 - 3200 m (TD) RKB)

The Smith Bank Formation consists of shale with beds of sandstone.

The shale is light grey, light green, red brown and firm.

The sandstone consists of clear, milky white, yellow brown and green quartz. The grains are fine to coarse, loose, subangular to rounded and moderate sorted.

Traces of pyrite and mica occur.

Depositional environment: Terrestrial, fluvio to lacustrine.

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4"   Geologist: P. Clint   Date: 30.5.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
180	80	Sd, clr-mlky, occ orng, v lt grn, v crs-med, occ fn lse, w rnd-subrnd, prly srtd	
	20	Lithic frags, metamorphic, igneous, wh gry, buff-brn, lt bl-dk bl gry, often spkld, purplish brn, gen v hd, tr lst frags	
	Tr	Shell frags	
	Tr	Pyrite- v fn nodules and glau nodules	
	Tr	Lign-coal, blk, mod hd, shiny lustre, fn diss pyr	
190	80	Sd, a/a, med-crs	
	10	Lithic frags a/a	
	5	Shell and foss frags	
	5	Cly, lt gry, v sft, sticky, soluble, calc	
	Tr	Pyr and glau nodules a/a	
200	75	Sd, clr-mlky, fn-med occ crs-v crs, often lithic frags, pr srtd	
	10	Lithic frags, pebbles, metamorphic, igneous	
	10	Cly, wh gry-lt gry a/a	
	5	Shell frags	
	Tr	Pyr-fn aggr glau nodules	
	Tr	Lign/coal blk, sft-frm, also blk, shiny, mod hd, brittle	
210	55	Sd, clr-cloudy, occ mlky, occ orng, v fn-v crs, pred fn-crs, pr srtd, subrnd-rnd	
	45	Cly, lt gry-wh gry, v sft-sft, sticky, soluble, calc	
	Tr	Coal/lign a/a	
	Tr	Shell frags, lithic rock frags	
220	80	Cly a/a	
	10	Sd, a/a, v crs-med, subrnd-subang	
	10	Lign, med brn-blk, sft, fib, woody text	
230	40	Cly a/a with 10% lt brn, sft, sl calc	
	50	Sd, a/a	
	10	Lign/coal, a/a blk, hd, brittle and sft, fib, brnish blk	
	Tr	Lithic rock frags, igneous and metamorphic	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: P.Clint Date: 30.5.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
240	80	Cly, lt gry, sft, soluble, slty ip, calc	
	20	Sd, clr-cloudy, occ v lt yel, med-crs, occ v crs, subrnd-rnd, pr srtd	
	Tr	Lithic rock frags, igneous and metamorphic	
250	70	Sd, lse qtz, pred clr, occ cloudy, lt grn, orng, fn-crs, pr srtd, rnd-subrnd	
	20	Cly, a/a	
	10	Lign, a/a blk-grn, sft-frm, fib, woody ip	
	Tr	Lithic frags, a/a	
	Tr	Forams	
260	50	Sd, gen a/a, v fn-v crs, pred fn-med, some v crs, lithic sd	
	50	Cly, lt gry, sft,sticky, a/a	
	Tr	Lign, a/a	
	Tr	Lst, wh, frm, microxln, rock frags, a/a	
270	80	Cly, lt gry-v lt bl gry, tan gry, sft, stcky a/a	
	15	Sd, clr qtz, and yel ip, fn-v crs, predom fn-med, a/a	
	5	Lign, a/a	
	Tr	Rock frags a/a	
	Tr	Lst, a/a	
280	80	Sd, clr, lt yel, fn-v crs, lithic frags, smky blk, lt grn bl, lt brn, pr srtd, subrnd-rnd	
	10	Shell frags, Lst, wh, frm, hd	
	5	Lign, a/a	
	5	Rock frags	
290	70	Sd, a/a, gen somewhat finer	
	25	Cly, lt gry, sft, a/a	
	5	Lign	
	Tr	Shell frags	
300		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: P. Clint Date: 31.5.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
310	70	Sd, clr, lse qtz, v fn-med, occ crs-v crs, mod srtd, rnd-subrnd	
	20	Cly, lt brnish gry, sft, stky calc	
	10	Lign, blk-brn, sft-frm	
320	80	Sd, a/a	
	20	Cly, a/a	
	Tr	Shell frags, pyr	
330	70	Cly, lt-med gry, sft, stky, occ slty	
	25	Sd, a/a, fn-med predom	
	5	Lign, a/a	
	Tr	Shell frags, bivalves	
340	80	Cly, a/a	
	20	Sd, a/a	
	Tr	Lign, shell frags, a/a	
350	65	Cly, lt gry-bl gry, sft, stky, a/a	
	20	Sd, clr, lse qtz, fn-med, a/a	
	15	Lign, blk-brn, sft-frm, fibrous, woody ip	
360	90	Cly, a/a, slty ip	
	10	Sd, a/a, fn-med	
	Tr	Lign, Shell frags	
370	100	Cly, lt gry-bl gry, sft, stky, mod calc, slty ip	
	Tr	Sd, a/a	
	Tr	Lign, a/a	
380		NO SAMPLE DUE TO CHANGING SCREENS	
390	100	Cly, med gry-bl gry, sft, glau, mod calc	
	Tr	Lign, Shell frags	
400	100	Cly, lt brnish gry, bl gry-med gry	
410	100	Cly, med gry-bl gry, occ grn gry and dk gry, stky, sl glau ip	
420	100	Cly, lt-med gry, occ dk gry, sft, stky, slty ip,	
	Tr	Lign, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-13
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: P. Clint Date: 31.5.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
430	100	Cly, lt gry, lt brnish gry, med gry, dk gry, occ grn gry, sft, stky, slty ip, sl micromic	
440	100	Cly, a/a, dk gry, often frm, pyr, micromic ip	
	Tr	Lign	
450	100	Cly, a/a, incr in grn gry, ip bec sl frm, slty	
	Tr	Shell frags	
460	100	Cly, a/a, slty ip	
470	100	Cly, a/a	
	Tr	Sd, v fn, clr, lse, w rnd qtz	
	Tr	Shell frags	
480	100	Cly, predom v lt brn gry, sft, stky, a/a, micromic, carb, non-mod calc	
	Tr	Sd, a/a	
490	90	Cly, brnish gry-lt grn gry, grn gry, non-calc	
	10	Slt, med gry-dk gry, frm, fri, micromic, non-sl calc	
500	100	Cly, gry, med gry w/dk gry blk slty incl	
510	100	Cly, predom gry, a/a	
520	100	Cly, lt gry-med gry, sft-frm, micromic, carb spcks, calc	
	Tr	Lse qtz, clr, crs, ang-subang	
530	100	Cly, a/a, sft-stky	
540		a/a	
550	100	Cly, a/a, v sl brnish gry ip	
560	100	Cly, wh gry, a/a	
	Tr	Sd, lse, clr qtz, fn, subrnd-rnd	
570	100	Cly, a/a, lt gry-med gry, bl gry, v sl slty ip	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 17½" Geologist: P. Clint Date: 6.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
580	100	Cly, lt-med gry, sft-frm, micromic, carb spcks, calc, incr in bl gry	
	Tr	Forams, microfoss	
590		a/a	
600	100	Cly, lt gry-v lt grn gry, lt gry, sft, calc, micromic, abun carb/lign specks, microfoss	
	Tr	Pyr, nodls and clr lse qtz grns, fn-fn	
610	100	Cly, med gry-lt gry, sft, calc, carb spks, lign frags	
	Tr	Pyr, nodls	
	Tr	Microfoss	
	Tr	Sd, lse qtz, clr, fn-med, subrnd-subang	
620	100	Cly, lt gry, a/a	
	Tr	Lign	
	Tr	Shell frags	
630	100	Cly, a/a	
	Tr	Sd, clr, lse, fn qtz	
640	100	Cly, a/a	
	Tr	Sd, a/a	
650		a/a	
660	50	Sd, clr v fn-med, occ crs, subang-subrnd,	
	50	Cly, a/a, lt-dk gry	
	Tr	Lign, blk, frm-hd, brittle, foss frags	
670	70	Sd, clr, occ lt grn, pred fn-med, grdng to crs, mod srtd, subang-rnd, rock frags	
	30	Cly, a/a, occ dk gry-blk, coaly	
	Tr	Foss frags	
680	80	Sd, a/a, prly srtd, often blk, dk mineral incl in qtz, rock frags	
	20	Cly, med-dk gry, a/a	
	Tr	Lign, pyr nodls	
690	80	Sd, a/a	
	20	Cly, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58^{o} 18' 07.45"N; 01^{o} 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 17½"   Geologist: P. Clint   Date: 6.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
700	70	Sd, clr, occ lt grn, pred fn-med grdng to crs, prly srtd, subang-rnd, rock frags	
	30	Cly, med-dk gry, sft, calc, carb spks, lign frags	
	Tr	Shell, foss frags	
710	60	Sd, clr-mlky, fn-v crs, v pr srtd, subang-rnd, includes lithic frags, micac, metamorphic some glau	
	40	Cly, lt gry, sft, a/a	
	Tr	Lign	
	Tr	Shell, foss frags	
720	60	Cly, gry, sft, stky, mod, calc	
	40	Sd, a/a	
	Tr	rock frags, fossil frags	
730	90	Sd, clr-mlky, lse qtz, fn-med occ crs-v crs, subrnd-rnd, w/lithic frags: blk, dk gry spkls, metamorphic, micaceous	
	10	Cly, a/a	
	Tr	Shell frags, pyr	
	Tr	Glau, Clyst frags	
740	70	Sd, a/c, occ rose, pred fn-med occ v fn-v crs, pr srtd	
	30	Cly, sft, gry, a/a	
	Tr	Shell, fossil frags, pyr, lithic frags	
750	60	Sd, a/a	
	40	Cly, a/a	
760		a/a	
770	70	Sd, a/a, clr, often orng	
	30	Cly, a/a	
	Tr	Foss frags + forams	
780	60	Cly, lt gry, sft, stky, mod calc	
	40	Sd, a/a	
	Tr	Lign, pyr	
790	90	Cly, a/a	
	10	Sd, a/a	
	Abun	Forams	
	Tr	Foss frags	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 17½" Geologist: P. Clint Date: 7.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
800	80	Cly, wh gry-lt bl gry, sft, stky, mod calc	
	20	Sd, clr-mlky, v fn-v crs, v pr srtd, occ orng, subang-rnd	
	Tr	Lign, blk, frm	
810	90	Cly, a/a	
	10	Sd, a/a	
	Tr	Foss (forams), pyr	
820	100	Cly, med gry, sft, plastic, occ frm, slty, mod calc	
	Tr	Sd, a/a	
830	100	Cly, a/a	
840	100	Cly, a/a, occ dk gry	
	Tr	Sd, a/a	
850	100	Cly, med-dk gry, sft-frm, slty ip	
	Tr	Sd, lse qtz, a/a	
	Tr	Pyr	
860	100	Cly, slty, a/a	
	Tr	Lign, microfoss	
870		a/a	
880	90	Cly, a/a	
	10	Sd, clr, lse qtz, v fn-fn, subang	
890	60	Sd, clr, fri-med, occ crs, subrnd-rnd, occ subang, mod w srtd	No shows
	40	Cly, med gry, sft-frm, a/a	
	Abun	Shell, foss frags and mica flakes	
900	80	Sd, clr, cloudy, v fn-med, w-mod srtd, subrnd-rnd, micaceous	
	20	Cly, a/a	
	Abun	Shell, foss frags	
910	100	Sd, clr, v fn-med, occ crs, mod srtd, subang-rnd, mica flakes, glau nodls	
	Tr	Cly, gry, sft and tr rd brn, sft, glau	
	Tr	Shell, foss frags, pyr nodls	
920	100	Sd, a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58^{o} 18' 07.45"N; 01^{o} 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 17½"   Geologist: P. Clint   Date: 7.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
930	70	Sd, clr, v fn-med, occ crs, mod srtd, subang-rnd, mica flakes, glau nodls	
	20	Shell, foss frags	
	10	Glau nodls, blk - v dk grn	
	Tr	Cly, gry, sft and tr rd brn, sft, glau	
940	70	Sd, a/a, v fn-fn, mica flakes	
	20	Shell, foss frags, some echin spicules	
	10	Cly, gry, sft, calc	
	Tr	Glau, pyr nodls	
950	90	Sd, a/a gen v fn-fn	
	5	Shell, foss frags	
	5	Cly, w/glau nodls	
960	80	Sd, a/a, bec crser, pr srtd	
	10	Cly, a/a	
	10	Foss frags, glau nodls	
970	80	Sd, a/a	
	15	Cly, a/a	
	5	Shell frags, a/a	
980	80	Sd, clr, v fn-v crs, pr srtd, large mica flakes, a/a	
	10	Cly, gry, sft, a/a	
	10	Shell + foss frags	
	Tr	Glau, lign, lithic frags, a/a	
990	70	Sd, a/a	
	20	Shell frags, foss frags, bivalves, gastropeds	
	10	Cly, lt-med gry, sft, also bl gry	
	Tr	Pyr casts and nodules	
	Tr	Glau	
1000	70	Sd, a/a, some v crs, occ v fn Sst, weakly cmt	
	30	Cly, lt-med gry, sft occ frm and slty, lign	
	Tr	Shell and foss frags	
	Tr	Glau nodls	
1010	75	Sd, a/a, micac, a/a	
	25	Cly, a/a, occ slty	
	Tr	Foss frags, pyr nodls, gastropods	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 17½" Geologist: P. Clint Date: 7.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1020	70	Sd, clr, lse qtz, pred v fn-med occ crs, mod srtd, subang-rnd, micac, glau	
	30	Cly, lt gry, sft, stky, and med gry, frm, slty	
	Tr	Foss, shell frags	
	Tr	Pyr	
1030		a/a	
1040	70	Sd, a/a	
	20	Cly, a/a	
	10	Shell, foss frags, bivalves, gastropods	
	Tr	Pyr aggr, glau	
1050		a/a	
1060	60	Sd, gen a/a	
	40	Cly, lt gry-lt grn gry, glauc	
	Tr	Sst/Sltst, brn gry- v fn-fn, gd por, calc cmt	
	Tr	Shell, foss frags	
	Tr	Lign, brn-blk, glau nodls , microfoss	
1070	80	Sd, clr qtz , v fn-fn, subrnd-rnd, spherical, lse	
	20	Cly, lt gry-grn gry, sft, stky, occ slty, glau, micromic	
	Tr	Sltst, lt brn gry, frm, mod calc	
	Tr	Sst, brn gry, v fn-fn, subang-rnd, prly cmt, gd por, v micac	
	Tr	Foss frags	
	Tr	Glau nodls	
1080	70	Sd, a/a	
	25	Cly, a/a	
	5	Foss frags	
	Tr	Sltst, a/a	
	Tr	Lithic rock frags	
1090	70	Sd, a/a, v fn-med,	
	30	Cly, wh-grn gry, v sft, a/a	
	Tr	Sst, brn gry, a/a	
	Tr	Foss, shell frags	
	Tr	Glau nodls	
1100		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 17½"   Geologist: P. Clint   Date: 7.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1110	85	Sd, clr qtz, occ cloudy, v fn-fn, occ crs, subrnd-rnd, lse, glau nodls	No shows
	15	Cly, lt gry-bl gry, sft, stky, occ slty, glau, micromic	
	Tr	Sltst, lt brn gry, frm, mod calc	
	Tr	Shell, foss frags	
1120	50	Sd, a/a	
	40	Cly, lt gry-bl gry, grn gry, sft and frm, non-mod calc, glau	
	10	Shell, foss frag, microfoss, gastropods, bivalves	
	Tr	Pyr nodls	
	Tr	Lign	
1130	80	Cly/Clyst, wh gry-lt gry-med gry, occ bluish tinge, sft-frm, glau, non-v sl calc	
	20	Sd, a/a	
	Tr	Shell, foss frags	
	Tr	Glau nodls	
	Tr	Sltst, brn gry, frm, blky	
1140	90	Cly/Clyst, lt-med gry, sft-frm, non-mod calc, pyr	
	10	Sd, a/a	
	Tr	Shell frags	
1150	90	Cly, a/a	
	10	Sd, a/a	
	Tr	Sltst, lt brn gry, lign	
1160	100	Clyst, lt-med gry, sft-frm, blky, micac, sl slty and glau ip	
	Tr	Sd, a/a	
	Tr	Foss	
1170		a/a	
1180	100	Cly, a/a, occ lt grn gry	
	Tr	Sd, a/a	
	Tr	Foss	
1190	100	Clyst, lt gry, wh gry, occ lt grn gry, frm, blky, micac, pyr	
	Tr	Sd, clr, v fn-v crs, rnd-subrnd	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R. Sunnarvik Date: 10.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1192	100	Clyst, lt gry-lt brn gry, frm, blky, micac, pyr	
1200	100	Clyst, lt-med gry, sl slty, sft-frm, micromic, microcarb, calc-non calc	
1210	100	Clyst, lt gry-med gry, med brn gry, else a/a	
1220	100	Clyst, a/a	
1230	100	Clyst, a/a	
	Tr	Glau	
1240	100	Clyst, a/a	
	Tr	Glau	
	Tr	Foss frags	
1250		a/a	
1260		a/a	
1270	100	Clyst, a/a	
	Tr	Sd, clr qtz v fn-fn, subang-subrnd	
	Tr	Glau	
	Tr	Foss frags	
1280	100	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Glau	
	Tr	Foss frags	
1284	80	Sd, a/a	
	20	Clyst, a/a	
	Tr	Glau	
	Tr	Foss frags	
1290	60	Sd, v fn-med, else a/a	
	40	Clyst, a/a	
	Tr	Glau	
	Tr	Foss frags	
1300	80	Clyst, a/a	
	20	Sd, v fn-med, occ crs, else a/a	
	Tr	Glau	
	Tr	Foss frags	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R. Sunnarvik Date: 10.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1310	95	Clyst, lt-med gry, med brn gry, sl slty, sft-frm, micromic, microcarb, calc-non calc	No shows
	5	Sd, clr qtz, v fn-med, occ crs, subang-subrnd	
	Tr	Glau	
	Tr	Foss frags	
1320	100	Clyst, lt-med gry, med brn gry, frm, micromic, microcarb, sl slty, calc-non calc, blky-subfiss	
	Tr	Sd, clr qtz, v fn-med, occ crs, ang-subrnd	
	Tr	Glau	
	Tr	Foss frags	
1330	100	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1340	100	Clyst, mnly med brn gry, mnly non calc, else a/a	
	Tr	Sd, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1350		a/a	
1360		a/a	
1370		a/a	
1380		a/a	
1390		a/a	
1400		a/a	
1410		a/a	
1420	100	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N;   01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4"   Geologist: R. Sunnarvik   Date: 11.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1430	100	Clyst, mostly lt-med gry, but also med brn gry, frm, micromic, microcarb, sl slty, non calc, blky-subfiss	
	Tr	Sd, clr qtz, v fn-med, occ crs, ang-subrnd	
	Tr	Lst, lt brn, wh-lt gry, hd	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1440		a/a	
1450		a/a	
1460		a/a	
1470		a/a	
1480		a/a	
1490		a/a	
1500		a/a	
1510		a/a	
1520		a/a	
1530		a/a	
1540		a/a	
1550		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R.Sunnarvik/T.Ljones Date: 11.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1560	100	Clyst, lt-med gry, med brn gry, frm, blky-subfiss, micromic, microcarb, sl slty, non calc-calc	
	Tr	Clyst, lt grn gry, frm, micromic, microcarb, sl calc	
	Tr	Glau	
	Tr	Lst, lt brn, wh-lt gry, hd	
	Tr	Pyr	
	Tr	Foss frags	
1570	100	Clyst, a/a	
	Tr	Clyst, a/a	
	Tr	Glau	
	Tr	Lst, a/a	
	Tr	Pyr	
	Tr	Foss frags	
1580		a/a	
1590	100	Clyst, a/a	
	Tr	Clyst, a/a, blky	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1600	100	Clyst, a/a	
	Tr	Clyst, lt grn gry, a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1610		a/a	
1620		a/a	
1630		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R.Sunnarvik/T.Ljones Date: 12.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1640	100	Clyst, lt-med gry, med brn gry, frm-sft, blky-subfiss, micromic, microcarb, sl slty, non calc	
	Tr	Clyst, lt grn gry, frm, blky, micromic, microcarb, sl calc	
	Tr	Lst, lt brn, wh-lt gry, hd	
	Tr	Glau	
	Tr	Pyr	
1650	100	Clyst, a/a	
	Tr	Clyst, lt brn-gry, a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Pyr	
1660	100	Clyst, a/a	
	Tr	Clyst, lt brn-gry, a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Pyr	
	Tr	Foss frags	
1670		a/a	
1680		a/a	
1690	100	Clyst, a/a	
	Tr	Clyst, lt grn gry, a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1700	100	Clyst, a/a	
	Tr	Clyst, lt grn gry, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1710		a/a	
1720		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R.Sunnarvik/T.Ljones Date: 12.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1730	100	Clyst, lt-med gry, med brn gry, frm-sft, blky-subfiss, microcarb, micromic, sl slty, non calc	
	Tr	Clyst, lt grn gry, frm, blky, micromic, microcarb, sl calc	
	Tr	Lst, lt brn, wh-lt gry, hd	
	Tr	Foss frags	
	Tr	Pyr, Glau	
1740		a/a	
1750		a/a	
1760	100	Clyst, a/a	
	Tr	Glau	
	Tr	Lst, a/a	
	Tr	Foss frags	
	Tr	Pyr	
1770		a/a	
1780		a/a	
1790	100	Clyst, mnly lt-med gry, else a/a	
	Tr	a/a	
1800	100	Clyst, lt-med gry, frm-sft, micromic-microcarb, sl slty, blky-subfiss, non calc-sl calc	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1803	100	Clyst, a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1806		a/a	
1809		a/a	
1812		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R.Sunnarvik/T.Ljones Date: 12.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1815	100	Clyst, lt-med gry, frm-sft, micromic, microcarb, sl slty, blky-subfiss, non-sl calc	
	Tr	Lst, lt brn, wh-lt gry, hd	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1818		a/a	
1821	100	Clyst, a/a	
	Tr	Lst, incr lt brn, else a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1824		a/a	
1827		a/a	
1830	100	Clyst, a/a	
	Tr	Sd, v fn, slty ip, ang-subrnd	
1833	100	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1836	100	Clyst, a/a	
	Tr	Sd, v fn, slty, ang-subrnd	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R. Sunnarvik/T.Ljones Date: 12.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1839	100	Clyst, lt-med gry, frm-sft, micromic, microcarb, sl slty, blky-subfiss, non calc	
	Tr	Lst, lt brn, wh-lt gry, hd	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1842	100	Clyst, a/a	
	Tr	Lst, lt brn, wh-lt gry, frm-hd	
	Tr	Glau	
	Tr	Pyr	
1845		a/a	
1848		a/a	
1851		a/a	
1854		a/a	
1857		a/a	
1860		a/a	
1863		a/a	
1866		a/a	
1869		a/a	
1872		a/a	
1875		a/a	
1881	100	Clyst, a/a	
	Tr	Lst, lt brn-brn, wh-lt gry, hd	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1884		a/a	
1887		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R. Sunnarvik/T.Ljones Date: 12.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1889	100	Clyst, lt-med gry, frm-sft, micromic, microcarb, sl slty, blky-subfiss, non calc	
	Tr	Lst, lt brn-brn, wh-lt gry, hd	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1893	95	Clyst, a/a	
	5	Lst, lt brn-brn, occ wh-lt gry, hd, dol ip	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1896		a/a	
1899		a/a	
1902		a/a	
1905	90	Clyst, a/a	
	10	Lst, a/a	
	Tr	Glau	
	Tr	Foss frags	
	Tr	Pyr	
1908	90	Clyst, a/a	
	10	Lst, a/a	
	Tr	Pyr	
	Tr	Glau, foss frags	
1911		a/a	
1914		a/a	
1917	95	Clyst, frm, a/a	
	5	Lst, lt-rd brn, dol ip, hd	
	Tr	Pyr	
1920		a/a	
1923		a/a	
1926		a/a	
1929		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R.Sunnarvik/T.Ljones Date: 13.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1932	100	Clyst, lt-med gry, frm, micromic, microcarb, sl slty, blky-subfiss, non calc	
	Tr	Lst, lt-rd brn, dol ip, hd	
	Tr	Pyr	
1935		a/a	
1938		a/a	
1941		a/a	
1944	100	Sd, clr qtz, v fn, v slty, ang-subrnd	No shows
1947	100	Clyst/Sh, lt-med gry, frm, micromic, microcarb, sl slty, subfiss, non calc	
	Tr	Lst, a/a	
	Tr	Glau	
1950		a/a	
1953	100	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
	Tr	Glau	
1956	50	Clyst, lt grn gry, frm, subfiss, microcarb, non calc	
	50	Clyst, lt-med gry, a/a	
	Tr	Pyr	
	Tr	Lst, a/a	
1962		a/a	
1965	100	Clyst, decr amount of lt-med gry	
	Tr	Lst, a/a	
	Tr	Pyr	
1968	60	Clyst, lt grn gry, a/a	
	40	Clyst, lt-med gry, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
1971		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R. Sunnarvik/T.Ljones Date: 13.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
1977	60	Clyst, lt grn gry, occ grn, frm, subfiss, microcarb, non calc	
	40	Clyst, lt-med gry, frm, micromic, microcarb, sl slty, blky-subfiss, non calc	
	Tr	Lst, lt-rd brn, hd, dol ip	
	Tr	Pyr	
1980	70	Clyst, lt grn gry, occ grn, a/a	
	30	Clyst, lt-med gry, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
1983	80	Clyst, lt grn gry, occ grn, a/a	
	20	Clyst, lt-med gry, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
1989	70	Clyst, lt grn gry, occ grn, a/a	
	30	Clyst, lt-med gry, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
	Tr	Sst/Sltst, clr, v fn, v slty, fri, ang-subrnd, non calc	
1992		a/a	
1995	60	Clyst, lt grn gry, occ grn, a/a	
	40	Clyst, lt-med gry, a/a	
	Tr	Sst/Sltst, a/a	
	Tr	Pyr	
	Tr	Lst, a/a	
1998	100	Clyst, mnly lt gry-lt grn gry, else a/a	
	Tr	Sst/Sltst, a/a	
	Tr	Pyr	
2001		a/a	
2007		a/a	
2010		a/a	
2013		a/a	
2016		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4"   Geologist: R.Sunnarvik/T.Ljones   Date: 13.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2019	100	Clyst, lt gry-lt grn gry, frm, blky-subfiss, microcarb, non calc	
	Tr	Sst/Sltst, clr, v fn, v slty, fri, ang-subrnd, non calc	
	Tr	Pyr	
2022	100	Clyst, a/a	
	Tr	Sst/Sltst, clr-mlky wh, else a/a	
	Tr	Pyr	
2025		a/a	
2029	90	Sd/Sst, clr-mlky wh, v fn, slty, occ fn - med	No shows
	10	Clyst, a/a	
2031	100	Sd/Sst, a/a	
	Tr	Clyst, a/a	
2034	50	Clyst, micromic, else a/a	
	50	Sst, clr-mlky wh, med crs, occ v fn-fn, fri, ang-subrnd, non calc	
	Tr	Pyr	
2037	85	Sst, a/a	
	15	Clyst, a/a	
2040	85	Sst, a/a	
	15	Clyst, a/a	
	Tr	Pyr	
	Tr	Glau	
2046	95	Sst, a/a	
	5	Clyst, a/a	
	Tr	Mica	
2049		a/a	
2052		a/a	
2055	85	Sst, clr-mlky wh, med-crs, occ v fn-crs, fri, ang-subrnd, non calc	
	15	Clyst, a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58^{o} 18' 07.45"N; 01^{o} 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R.Sunnarvik/T.Ljones Date: 13.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2058	85	Sst, clr-mlky wh, med-crs, occ v fn-crs, fri, ang-subrnd, non calc	No shows
	15	Clyst, lt gry-lt grn gry, frm, blky-subfiss, microcacb, micromic, non calc	
2061	60	Sst, a/a	
	40	Clyst, a/a	
2064	70	Clyst, a/a	
	30	Sst, a/a	
2067	85	Clyst, a/a	
	15	Sst, a/a	
2070		a/a	
2073	95	Clyst, a/a	
	5	Sst, a/a	
2076	100	Clyst, a/a	
	Tr	Sst, a/a	
2079		a/a	
2085	100	Clyst, lt gry-lt grn gry & med brn gry, frm, blky, subfiss, micromic, microcarb, non calc	
2088		a/a	
2091	100	Clyst, lt gry-lt grn gry, frm, blky-subfiss, microcarb, micromic, non calc	
	Tr	Pyr	
2094	100	Clyst, a/a	
2097		a/a	
2100		a/a	
2103		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4"   Geologist: R.Sunnarvik/T.Ljones   Date: 13.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2106	100	Clyst, lt gry-lt grn gry, occ med brn gry, frm, blky-subfiss, micromic, microcarb, non calc	
	Tr	Pyr	
	Tr	Glau	
	Tr	Lst	
2109		a/a	
2112		a/a	
2115		a/a	
2118		a/a	
2121		a/a	
2124	100	Clyst, a/a	
2127		a/a	
2130		a/a	
2133	100	Clyst, lt gry-lt grn gry, frm, blky-subfiss, microcarb, micromic, non calc	
	Tr	Pyr	
2136	100	Clyst, a/a	
	Tr	Pyr	
	Tr	Tuff, wh-lt gry, sft-frm, dk spots, non calc	
2142		a/a	
2145		a/a	
2148		a/a	
2151	100	Clyst, a/a	
	Tr	Tuff, a/a	
2154		a/a	
2157		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: R.Sunnarvik/T.Ljones Date: 14.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2160	100	Clyst, lt gry-lt grn gry, frm, blky-subfiss, microcarb, micromic, non calc	
	Tr	Tuff, wh-lt gry, sft-frm, dk spots, sl calc	
	Tr	Pyr	
2163	100	Clyst, lt-lt grn gry, lt-med brn gry, else a/a	
	Tr	Tuff, a/a	
2166		a/a	
2169		a/a	
2172		a/a	
2175		a/a	
2178	100	Clyst, non-sl calc, else a/a	
	Tr	Tuff, a/a	
2181		a/a	
2184		a/a	
2187		a/a	
2190		a/a	
2193		a/a	
2196	100	Clyst, a/a	
	Tr	Tuff, sl calc-calc, else a/a	
2199	100	Clyst, a/a	
	Tr	Tuff, a/a	
	Tr	Clyst, med-rd brn, frm, blky-subfiss, micromic, microcarb, non calc	
2202		a/a	
2205	90	Clyst, a/a	
	10	Clyst, med-rd brn, a/a	
	Tr	Tuff, a/a	
2208	85	Clyst, a/a, occ grn gry	
	15	Clyst, med-rd brn, a/a	
	Tr	Lst, lt gry, hd	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4"   Geologist: R.Sunnarvik/T.Ljones   Date: 14.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2211	85	Clyst, lt gry-lt grn gry, occ grn gry, frm, blky-subfiss, microcarb, micromic, non-sl calc	
	15	Clyst, med-rd brn, frm, blky-subfiss, micromic, microcarb, non calc	
	Tr	Lst, lt gry, hd	
2214	95	Clyst, lt gry-lt grn gry, lt-med brn gry, frm, blky-subfiss, micromic, microcarb, non-sl calc	
	5	Clyst, med-rd brn, non-sl calc, a/a	
	Tr	Lst, a/a	
2217	90	Clyst, a/a	
	10	Clyst, med-rd brn, a/a	
	Tr	Lst, a/a	
2220	95	Clyst,a /a	
	5	Clyst, med-rd brn, a/a	
	Tr	Lst, a/a	
2223		a/a	
2226		a/a	
2229		a/a	
2232	95	Clyst, lt-lt grn gry, occ rd-brn, a/a	
	5	Pyr, marcasite	
	Tr	Lst, a/a	
	Tr	Microfoss, occ pyr	
2235	100	Clyst, a/a	
	Tr	Pyr, marcasite	
	Tr	Lst, a/a	
	Tr	Microfoss	
2238		a/a	
2241		a/a	
2244		a/a	
2247		a/a	
2250		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: H.Nygård/T.Ljones Date: 17.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2253	100	Clyst, lt gry-lt grn gry, lt-med brn gry, occ dk brn , frm, blky-subfiss, micromic, microcarb, non-sl calc	
	Tr	Lst, lt gry, hd	
	Tr	Dol, lt yel-brn, hd	
	Tr	Microfoss	
	Tr	Pyr, marcasite	
2256	100	Clyst, lt gry-lt grn gry, occ lt gry, frm, blky-subfiss, micromic, microcarb, sl slty, non calc	
	Tr	Clyst, med-rd brn, frm, blky-subfiss, micromic	
	Tr	Tuff, bl-gry, sft, dk spots	
	Tr	Lst, lt gry, frm	
	Tr	Pyr	
2259		a/a	
2262		a/a	
2265	100	Clyst, a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Tuff, a/a	
2268		a/a	
2271		a/a	
2274	100	Clyst, lt grn gry, else a/a	
	Tr	Lst, a/a	
	Tr	Glau	
	Tr	Tuff, a/a	
2277		a/a	
2280		a/a	
2283		a/a	
2286		a/a	
2289		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: H.Nygård/T.Ljones Date: 18.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2291	100	Clyst, lt gry-lt grn gry, frm, blky-subfiss, micromic, microcarb, sl slty, non calc	
	Tr	Lst, mlky wh, sft-frm	
	Tr	Tuff, bl-gry, sft, dk spots	
	Tr	Pyr	
2295		a/a	
2304	100	Clyst, lt grn gry, occ lt gry and med-rd brn, else a/a	
	Tr	Lst, a/a	
	Tr	Tuff, a/a	
	Tr	Pyr	
2307		a/a	
2310		a/a	
2313		a/a	
2316		a/a	
2319		a/a	
2322		a/a	
2325		a/a	
2328	100	Clyst, a/a	
	Tr	Sltst, lt gry-yel, lse	
	Tr	Lst, a/a	
	Tr	Tuff, a/a	
	Tr	Pyr	
2331		a/a	
2334	100	Clyst, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2337		a/a	
2340		a/a	
2343		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: H.Nygård/A.Hesjedal Date: 18.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2346	100	Clyst, lt grn gry, occ lt gry and med-rd brn, frm, blky-subfiss, micromic, microcarb, sl slty, non calc	
	Tr	Lst, mlky wh, sft-frm	
	Tr	Pyr	
2349		a/a	
2352	100	Clyst, lt gry-grn gry, frm, blky, subfiss, micromic, sl slty, non calc	
	Tr	Sltst, lt brn gry, frm, argil, non calc	
	Tr	Lst, mlky wh, occ brn, sft-frm, occ hd	
	Tr	Pyr	
	Tr	Tuff	
2355		a/a	
2358		a/a	
2361		a/a	
2364	100	Clyst, a/a	
	Tr	Sltst, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
	Tr	Tuff	
	Tr	Glau	
2370	100	Clyst, lt gry-grn gry, occ med-dk gry, frm, blky, subfiss, micromic, sl slty, non calc	
	Tr	Lst, a/a	
	Tr	Pyr	
	Tr	Glau	
	Tr	Sd, clr qtz, fn-med, subang-subrnd, mod srtd, lse	
2373		a/a	
2376	100	Clyst, a/a	
	Tr	Sltst, lt brn, frm-hd, argil, non calc	
	Tr	Lst, a/a	
	Tr	Pyr	
2379		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: H.Nygård/A.Hesjedal Date: 18.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2382	100	Clyst, lt gry-grn gry, occ lt brn gry, frm, blky, subfiss, micromic, sl slty, non calc	
	Tr	Sltst, lt brn, frm-hd, argil, non calc	
	Tr	Lst, mlky wh, occ brn, sft-frm, occ hd	
	Tr	Pyr	
2385		a/a	
2388		a/a	
2391		a/a	
2394		a/a	
2397	50	Clyst, lt gry-grn gry, frm, blky, subfiss, micromic, occ slty, non calc	
	50	Clyst, med-rd brn, frm, subfiss, micromic, slty, non calc	
	Tr	Lst, mlky wh, brn, sft-frm	
	Tr	Pyr	
2400		a/a	
2403		a/a	
2406		a/a	
2409	50	Clyst, lt grn gry, a/a	
	50	Clyst, med-rd brn, a/a	
	Tr	Sltst, mlky wh-lt brn, frm-hd, non calc	
	Tr	Pyr	
	Tr	Glau	
	Tr	Lst, a/a	
2412		a/a	
2415	100	Clyst, mnly gry, v sl calc, else a/a	
	Tr	Sltst, a/a	
	Tr	Pyr	
	Tr	Glau	
	Tr	Lst, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: H.Nygård/A.Hesjedal Date: 19.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2418	70	Clyst, mnly gry, frm, blky, subfiss, micromic, occ slty, v sl calc	
	30	Lst, wh, sft-frm, v sl argil	
	Tr	Pyr	
	Tr	Glau	
	Tr	Sltst, mlky wh-lt brn, frm-hd, non calc	
2421		a/a	
2424	70	Clyst, med gry, occ grn-gry, brn-rd, frm, subfiss	
	30	Lst/chalk, mlky wh, sft-frm	
	Tr	Lst, yel-wh, hd, xln	
2427		a/a	
2430	60	Clyst, a/a	
	40	Lst/chalk, a/a	
	Tr	Lst, a/a	
2433	50	Clyst, a/a	
	50	Lst/chalk, a/a	
	Tr	Lst, a/a	
2436	80	Lst/chalk, a/a	
	20	Clyst, a/a	
	Tr	Sd, clr qtz, med, subang-subrnd, w srtd, lse	
	Tr	Lst, a/a	
	Tr	Pyr	
2439		a/a	
2442		a/a	
2445	70	Lst/chalk, a/a	
	30	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2448	80	Lst/chalk, a/a	
	20	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 12 1/4" Geologist: H.Nygård/A.Hesjedal Date: 20.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2451	80	Lst/chalk, mlky wh, sft-frm	
	20	Clyst, med gry, occ grn-gry, brn-rd, frm, subfiss	
	Tr	Sd, clr qtz, med, subang-subrnd, w srtd, lse	
	Tr	Lst, yel-wh, hd, xln	
	Tr	Pyr	
2454	90	Lst/chalk, a/a	
	10	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2457	100	Lst/chalk, mlky-wh, frm, occ mod hd	
2460		a/a	
2463		a/a	
2466		a/a	
2469	100	Lst/chalk, a/a	
	Tr	Pyr	
2472	100	Lst/chalk, a/a	
	Tr	Pyr	
	Tr	Microfoss	
	Tr	Sd, yel-brn, med-crs, subrnd	
2475	100	Lst/chalk, a/a	
	Tr	Pyr	
	Tr	Sd, a/a	
2478		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/A.Hesjedal Date: 24.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2481	100	Lst/chalk, wh, frm-mod hd, micritic, occ clr-lt brn, mod hd, xln, no vis por	
	Tr	Chert	
2484	100	Lst, a/a	
	Tr	Chert	
	Tr	Sd, clr qtz, crs-v crs, subang-subrnd, w srt, lse	No shows
2487	100	Lst, a/a	
	Tr	Sd, a/a	
	Tr	Pyr	
2490	100	Lst, a/a	
	Tr	Pyr	
2493	100	Lst, a/a	
	Tr	Sd, fn-crs, a/a	
	Tr	Pyr	
2496	80	Lst, a/a	
	20	Sd, a/a	
	Tr	Pyr	
2499	80	Lst, more yel brn, else a/a	
	20	Sd, mnly fn-med, else a/a	
	Tr	Pyr	
2502	80	Lst, a/a	
	10	Sd, a/a	
	10	Clyst, lt-med gry, frm, subfiss, non-sl calc, micromic, pyr, sl slty	
	Tr	Pyr	
2505	80	Lst, occ brn, mod hd xln, else a/a	
	10	Sd, a/a	
	10	Clyst, a/a but occ brn	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/A.Hesjedal Date: 25.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2508	90	Lst, wh, occ yel brn, frm-mod hd, micritic	
	10	Sd, clr qtz, occ mlky wh, occ xln, med-crs, subrnd-subang, pr srtd (occ brn-yel)	
	Tr	Pyr	
	Tr	Clyst, lt-med gry, frm, subfiss, non-sl calc	
	Tr	Sltst, gry-grn, frm-mod hd, sl calc	
2511	80	Lst, a/a	
	20	Sd, a/a	
	Tr	Pyr	
2514	90	Lst, a/a	
	10	Sd, a/a	
	Tr	Pyr	
	Tr	Sltst, a/a	
2517	90	Lst, a/a	
	10	Sd, a/a	
	Tr	Pyr	
2520	90	Lst, a/a	
	10	Sd, a/a	
	Tr	Clyst, a/a	
	Tr	Pyr	
2523	100	Lst, a/a	
	Tr	Sd, a/a	
	Tr	Pyr	
	Tr	Clyst, a/a	
2526		a/a	
2529		a/a	
2532		a/a	
2535		a/a	
2538		a/a	
2541		a/a	
2544		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: $8\frac{1}{2}$"   Geologist: H.Nygård/A.Hesjedal   Date: 25.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2547	100	Lst, wh, occ yel brn, frm-mod hd, micritic	
	Tr	Clyst, lt-med gry, frm, subfiss, non-sl calc	
	Tr	Sd, clr qtz, occ mlky wh, occ xln, med-crs, subrnd-subang, pr srtd (occ brn-yel)	No shows
2550	100	Lst, wh-lt yel, frm-mod hd, occ hd	
	Tr	Sd, med, subrnd	
	Tr	Clyst, gry-grn, lt grn, frm, subfiss calc (occ gry-brn)	
	Tr	Pyr	
2553		a/a	
2556	100	Lst, a/a	
	Tr	Sd, a/a	
	Tr	Clyst, a/a	
2559		a/a	
2562	100	Lst, wh-lt brn, else a/a	
	Tr	Sd	
	Tr	Clyst	
2565	95	Lst, a/a	
	5	Clyst, a/a	
	Tr	Sd, a/a	
2568	100	Lst, a/a	
	Tr	Clyst, a/a	
2571		a/a	
2574		a/a	
2577	100	Lst, sl argil, else a/a	
	Tr	Sd, occ yel-brn, fn-med, subang, occ subrnd	
	Tr	Clyst, a/a	
	Tr	Pyr	
2580		a/a	
2583		a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/S.Svinddal Date: 26.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2586	100	Lst, wh-lt brn, frm-mod hd, occ hd, sl argil	
	Tr	Sd, occ yel-brn, fn-med, subang, occ subrnd	
	Tr	Clyst, gry-grn, lt grn, frm, subfiss calc (occ gry-brn)	
	Tr	Pyr	
2589		a/a	
2592	100	Lst, a/a	
	Tr	Clyst, gry-brn, lt grn, frm, subfiss, calc	
2595		a/a	
2598		a/a	
2601		a/a	
2604	95	Lst, a/a	
	5	Clyst, a/a	
	Tr	Pyr	
	Tr	Sd, clr-wh qtz, fn-med, subang-subrnd, lse	
2607	90	Lst, a/a	
	10	Clyst, a/a	
	Tr	Sd, a/a	
2610		a/a	
2613	80	Lst, a/a	
	20	Clyst, a/a	
	Tr	Sd, a/a	
2616	90	Lst, a/a	
	10	Clyst, a/a	
	Tr	Sd, a/a	
2619	85	Lst, a/a	
	10	Clyst, a/a	
	5	Sd, w srtd, else a/a	
2622		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/S.Svinddal Date: 27.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2625	80	Lst, wh-lt brn, frm-mod hd, occ hd, sl argil	
	10	Clyst, gry-brn, lt grn, frm, subfiss, calc	
	10	Sd, clr-wh qtz, fn-med, subang-subrnd, lse, w srtd	No shows
2628	80	Lst, a/a	
	15	Clyst, gry-brn, occ lt grn, frm, subfiss, calc-v calc, occ v slty	
	5	Sd, a/a	
2631	90	Lst, occ sl slty, else a/a	
	10	Sd, fn-crs, subang, occ subrnd, lse	
	Tr	Clyst, a/a	
	Tr	Pyr	
2634		a/a	
2637	95	Lst, a/a	
	5	Sd, a/a	
	Tr	Clyst, a/a	
2640	95	Lst, a/a	
	5	Sd, a/a	
	Tr	Clyst, a/a	
	Tr	Pyr a/a	
2643		a/a	
2646	95	Lst, wh-lt gry, occ brn, else a/a	
	5	Clyst, gry-brn, occ pink, occ lt grn, else a/a	
	Tr	Sd, a/a	
	Tr	Pyr	
2649	90	Lst, a/a	
	5	Clyst, a/a	
	5	Sd, a/a	
2652	95	Lst, a/a	
	5	Clyst, a/a	
	Tr	Sd, a/a	
2655	90	Lst, a/a	
	10	Clyst, a/a	
	Tr	Sd, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 8½"   Geologist: H.Nygård/S.Svinddal   Date: 28.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2658	90	Lst, wh-lt brn, occ brn, frm-mod hd, occ hd, sl argil, occ sl slty	
	10	Clyst, gry-brn, occ pnk, occ lt grn, frm, subfiss, calc-v calc, occ v slty	
	Tr	Sd, clr-wh qtz, fn-med, subang-subrnd, lse, w srtd	No shows
2661	90	Lst, wh-lt gry, lt brn, frm-hd, sl argil, occ slty	
	10	Clyst, gry-brn, occ pink, occ lt grn, frm, subfiss, v calc, occ slty	
	Tr	Sd, clr-wh qtz, fn-crs, subang-subrnd, lse	
2664	90	Lst, tr glau, else a/a	
	10	Clyst, tr glau, else a/a	
	Tr	Sd, a/a	
	Tr	Pyr and glau	
2667	95	Lst, a/a	
	5	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Pyr and glau	
2670	100	Lst, a/a	
	Tr	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Pyr	
2673	95	Lst, a/a	
	5	Clyst, a/a	
	Tr	Sd, occ pink, yel, else a/a	
	Tr	Pyr	
	Tr	Glau	
2676	95	Lst, a/a	
	5	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Pyr	
2679	90	Lst, a/a	
	5	Clyst, a/a	
	5	Sd, a/a	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 8½"   Geologist: H.Nygård/S.Svinddal   Date: 28.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2682	80	Lst, wh-lt gry, lt brn, frm-hd, sl argil, occ slty	No shows
	20	Sd, clr-wh qtz, occ pink, yel, fn-crs, subang-subrnd, lse	
	Tr	Clyst, gry-brn, occ pink, occ lt grn, frm, subfiss, v calc, occ slty	
2685	40	Clyst/Sh, brn, med gry, occ lt grn, frm, occ sl subfiss, calc	
	30	Sd, clr qtz, occ yel-pink, else a/a	
	30	Lst, a/a	
	Tr	Pyr	
	Tr	Sst/Sltst, gry, fri, calc cmt, glau, grdng to v fn Sd	
2688	40	Lst, a/a	
	40	Sd, a/a	
	20	Clyst, a/a	
	Tr	Sst/Sltst, a/a	
	Tr	Glau	
2691	40	Lst, wh-buff, occ pink, frm, occ hd-v hd, occ sl xln, occ sl argil	
	30	Sst/Sd, gry-grn, clr qtz, v fn-fn, fri-mod hd occ fn-crs, lse, calc cmt, glau, occ grdng into Sltst	
	30	Clyst, rd-brn, med gry, lt gry-grn, frm, subfiss, calc, occ dk gry, non calc	
2694	40	Lst, a/a	
	30	Sst/Sd, a/a	
	30	Clyst, a/a	
	Tr	Pyr	
2697	70	Lst, a/a	
	20	Sst/Sd, a/a	
	10	Clyst, a/a	
2700	50	Lst, a/a	
	30	Sst/Sd, a/a	
	20	Clyst, occ slty, occ glau, else a/a	
	Tr	Pyr	
	Tr	Glau	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/S.Svinddal Date: 28.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2703	80	Lst, wh-buff, occ pink, frm, occ hd-v hd, occ sl xln, occ sl argil	No shows
	10	Sst/Sd, gry-grn, clr qtz, v fn-fn, fri-mod hd occ fn-crs, lse, calc cmt, glau, occ grdng into Sltst	
	10	Clyst, rd-brn, med gry, lt gry-grn, frm, subfiss, calc, occ dk gry, non calc, occ slty, occ glau	
	Tr	Glau	
2706	80	Lst, a/a	
	10	Sst/Sd, a/a	
	10	Clyst, a/a	
	Tr	Glau	
	Tr	Pyr	
2709	80	Lst, a/a	
	10	Sst/Sd, a/a	
	10	Clyst, a/a	
	Tr	Pyr	
2712	80	Lst, a/a	
	10	Sst/Sd, a/a	
	10	Clyst, a/a	
2715	80	Lst, a/a	
	10	Sst/Sd, a/a	
	10	Clyst, a/a	
	Tr	Pyr	
2718	60	Lst, a/a	
	20	Sst/Sd, grdng into Sltst, else a/a	
	20	Clyst, occ v calc, else a/a	
2721	60	Lst, a/a	
	20	Clyst, calc-v calc, else a/a	
	10	Sst/Sd, a/a	
	10	Sltst, gry-grn, fri, calc cmt, glau, grdng to v fn Sd	
2724	40	Lst, a/a	
	30	Clyst, a/a	
	20	Sst/Sd, a/a	
	10	Sltst, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/S.Svinddal Date: 29.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2727	40	Lst, wh-buff, occ pink, frm, occ hd, occ sl xln, occ argil	No shows
	30	Sst/Sd, gry-grn, clr qtz, v fn-fn-med, fri-mod hd, occ crs, lse, calc cmt, glau, occ grdng into Sltst	
	30	Clyst, rd-brn, med gry, lt gry-grn, frm, subfiss, calc-v calc, occ dk gry, occ slty	
	Tr	Pyr	
2730	40	Sst/Sd, a/a	
	30	Lst, a/a	
	30	Clyst, a/a	
	Tr	Pyr	
	Tr	Glau	
	Tr	Sltst, gry-grn fri, calc cmt, glau, grdng to v fn Sd	
2733	60	Sst/Sd, mnly v fn-fn, a/a	
	20	Lst, a/a	
	20	Clyst, a/a	
	Tr	Pyr	
	Tr	Glau	
	Tr	Sltst, a/a	
2736	40	Lst, a/a	
	30	Sst/Sd, a/a	
	30	Clyst, mnly brick rd-rd-brn, a/a	
	Tr	Pyr	
	Tr	Glau	
	Tr	Sltst, a/a	
2739	40	Clyst, a/a	
	30	Lst, a/a	
	30	Sst/Sd, a/a	
	Tr	Pyr	
	Tr	Glau	
	Tr	Sltst, a/a	
2742	40	Sst/Sd, mnly fn-v fn, lse, else a/a	
	40	Clyst, brick rd-rd brn, v calc a/a	
	20	Lst, a/a	
	Tr	Sh, dk gry-blk, mod hd, calc	
	Tr	Pyr	
	Tr	Glau	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N;   01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 8½"   Geologist: H.Nygård/S.Svinddal   Date: 29.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2745	40	Clyst, brick rd-rd brn, frm, subfiss, v calc, occ dk gry, occ slty	
	30	Lst, wh-buff, occ pink, frm, occ hd, occ sl xln, occ argil	
	30	Sst/Sd, gry-grn, clr qtz, fn-v fn, lse, fri-mod hd, occ crs, lse, calc cmt, glau, occ grdng into Sltst	
	Tr	Sh, dk gry-blk, mod hd, calc	
	Tr	Pyr	
	Tr	Glau	
2748	80	Sh, dk gry-blk, sft, sl calc, carb, sl pyr	
	10	Lst, wh-buff, frm-mod hd, occ xln	
	10	Pyr	
	Tr	Clyst, brick rd-rd brn, frm, v calc, sl slty grdng to Mrl	
	Tr	Sd, v fn-crs, occ Sst, gry-grn, subang-subrnd, occ calc cmt, glau, mnly lse	
	Tr	Glau	
2751	85	Sh, a/a	
	5	Pyr	
	5	Lst, a/a	
	5	Clyst, a/a	
	Tr	Sd, a/a	
	Tr	Glau	
2754	90	Sh, a/a	
	5	Sd, a/a	
	5	Lst, a/a	
	Tr	Clyst, a/a	
	Tr	Pyr	
	Tr	Coal, blk, frm-mod hd	
	Tr	Sltst, lt-med gry, frm, calc cmt, glau	
2757	80	Sh, a/a	
	10	Sd, a/a	
	5	Lst, occ wh w/pyr xln, else a/a	
	5	Clyst, a/a	
	Tr	Sltst, a/a	
	Tr	Coal, a/a	
	Tr	Pyr	
	Tr	Glau	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58^{o} 18' 07.45"N; 01^{o} 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/S.Svinddal Date: 30.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2760	65	Sh, dk gry-blk, sft, sl calc, carb, sl pyr	
	30	Clyst, brick rd-rd brn, lt grn, frm, v calc, sl slty, micro pyr	
	5	Lst, wh-buff, frm-mod hd, occ xln	
	Tr	Sd, v fn-crs, occ Sst, gry-grn, subang-subrnd, occ calc cmt, glau, mnly lse	
	Tr	Sltst, lt-med gry, frm, calc cmt, glau	
	Tr	Pyr, glau, coal	
2763	70	Sh, a/a	
	30	Clyst, a/a	
	Tr	a/a	
2766	80	Sh, dk gry-blk, med gry, occ rd-brn, occ lt grn, frm-mod hd, occ hd, subfiss-fiss, occ pyr, occ sl slty, sl calc	
	10	Sd, clr qtz, occ pink-yel, v fn-crs, subang-rnd, lse	
	10	Pyr	
	Tr	Sltst, lt gry grn, fri, calc cmt, glau	
	Tr	Lst, wh-buff, mod hd, sl argil	
	Tr	Coal	
2769	90	Sh, a/a	
	10	Lst, a/a	
	Tr	Sd, a/a	
	Tr	Pyr, Coal	
	Tr	Sltst, a/a	
2772	90	Sh, occ sft, a/a	
	10	Lst, a/a	
	Tr	a/a	
2775	80	Sh, a/a	
	10	Sd, a/a	
	10	Lst, a/a	
	Tr	Pyr	
	Tr	Sltst, a/a	
2778	80	Sh/Clyst, a/a	
	15	Sd, a/a	
	5	Lst, a/a	
	Tr	a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: H.Nygård/S.Svinddal Date: 30.6.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2781	80	Sh/Clyst, dk gry, mnly sft, stcky, subfiss-fiss, occ pyr, occ sl slty, sl calc	
	20	Sd, v fn-crs, clr qtz, occ pink-yel, subang-rnd, lse	
	Tr	Lst, wh-buff, mod hd, sl argil	
	Tr	Pyr	
	Tr	Coal	
2784	70	Sh/Clyst, a/a	
	30	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Pyr, Coal	
2787	60	Sh/Clyst, a/a	
	40	Sd, a/a	
	Tr	Lst,a/a	
	Tr	Pyr, Coal	
2790		a/a	
2793	90	Sh, a/a	
	10	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Pyr, Coal	
2796	70	Sh, dk gry-gry, frm-mod hd, subfiss-fiss occ pyr, occ sl slty, occ sft, sl calc	
	30	Sd, clr-yel qtz, occ wh, v fn-med, occ crs, subang-subrnd, lse	
	Tr	Lst, wh-buff, mod hd, occ sl argil	
	Tr	Pyr, coal	
2799	70	Sh/Clyst, a/a	
	30	Sd, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2802	60	Sh/Clyst, a/a	
	40	Sd/Sst, occ calc cmt, grdg into sltst, else a/a	
	Tr	Sltst, lt gry-lt grn, fri, calc cmt, glau	
	Tr	Lst, a/a	
	Tr	Pyr, coal	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58^{o} 18' 07.45"N; 01^{o} 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 3.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2805	50	Sh/Clyst, dk gry-gry, frm-mod hd, subfiss-fiss, occ pyr, occ sl slty, occ sft, sl calc	
	50	Sd/Sst, clr-yel qtz, occ wh, v fn-med, occ crs, subang-subrnd, lse	
	Tr	Sltst, lt gry-lt grn, fri, calc cmt, glau	
	Tr	Lst, wh-buff, mod hd, occ sl argil	
	Tr	Coal	
	Tr	Glau	
	Tr	Pyr	
2805 - 2878		CORED INTERVAL	
2880	60	Sst, clr, mlky wh, occ pink qtz, med-crs, subang-rnd, lse, w srtd	
	30	Sh, med gry, occ rd and grn, slty, micromic, sl carb	
	10	Lst, wh-buff, occ argil	
2883	80	Sst, clr, mlky wh qtz, med-crs, subang-rnd, lse, occ calc cmt, w srtd	
	10	Sh, a/a	
	10	Lst, a/a	
2886	85	Sst, occ yel, fn-crs, else a/a	
	10	Lst, a/a	
	5	Sh, a/a	
2889	85	Sst, rd brn, clr, mlky wh qtz, fn-crs, else a/a	
	10	Lst, a/a	
	5	Sh, a/a	
2892		a/a	
2895	85	Sst, a/a	
	15	Sh, a/a	
	Tr	Mica	
	Tr	Pyr	
	Tr	Lst, a/a	
2898	60	Sst, a/a	
	40	Sh, med gry, rd brn, slty, micromic, sl carb	
	Tr	Lst, a/a	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 4.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2901	50	Sst, rd brn, clr, mlky wh qtz, fn-crs, subang-rnd, lse, occ calc cmt, w srtd,	No shows
	50	Sh, med gry, rd brn, sl slty, micromic, mod hd	
	Tr	Lst, wh-buff, occ argil	
	Tr	Pyr	
2904	90	Sst, a/a	
	10	Sh, lt grn, mod gry-blk, rd brn, mod hd	
	Tr	Pyr	
2907	70	Sst, a/a	
	20	Clyst, calc, gry, sft	
	10	Sh, a/a	
	Tr	Pyr	
2910	90	Sst, clr, mlky wh, occ rd qtz, fn-med, subang-subrnd, lse, w srtd, occ calc cmt	
	10	Sh, med gry, occ rd and grn, sl carb	
	Tr	Lst, a/a	
	Tr	Pyr	
2913	60	Sh, lt gry, rd brn, frm	
	40	Sst, a/a	
	Tr	Lst, a/a	
2916	80	Sst, a/a	
	20	Clyst/Sh, lt gry, lt grn, rd brn, frm, sl calc	
	Tr	Lst, a/a	
	Tr	Pyr	
2919	85	Sst, a/a	
	15	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2922	95	Sst, fn-med, occ crs, else a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2925	90	Sst, fn-crs, else a/a	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	
2928		a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 4.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2931	95	Sst, clr, mlky wh, yel brn rd qtz, fn-med, subang-subrnd, lse, w srtd, occ calc cmt	No shows
	5	Clyst/Sh, lt gry, lt grn, rd brn, frm, sl calc	
	Tr	Lst, wh-buff, occ argil	
	Tr	Pyr	
2934	95	Sst, sil cmt, else a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2937	95	Sst, clr, mlky wh, yel brn qtz, fn-crs, subang-subrnd, hd, sil cmt, w srtd	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
2940	90	Sst, fn-med, occ sil cmt, else a/a	
	5	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Pyr	
2943	70	Sst, occ sil cmt, else a/a	
	25	Clyst/Sh, a/a	
	5	Lst, a/a	
2946	90	Sst, lse, decr amnt of yel brn qtz, else a/a	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2949	85	Sst, a/a	
	10	Lst, a/a	
	5	Clyst/Sh, a/a	
2952	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
2955		a/a	
2958	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 4.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2961	95	Sst, clr, mlky wh qtz, fn-crs, lse, subang-subrnd, sil cmt, w srtd	No shows
	5	Clyst/Sh, lt gry, lt grn, rd brn, frm, sl calc	
	Tr	Lst, wh-buff, occ argil	
	Tr	Pyr	
2964		a/a	
2967	95	Sst, some pink qtz, else a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2970	90	Sst, clr mlky wh, yel brn qtz, fn-crs, subang-subrnd, hd, w srtd	
	5	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Pyr	
2973	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
2976		a/a	
2979	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
	Tr	Mica	
2982		a/a	
2985	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
2988	90	Sst, a/a	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway　　Area: North Sea　　Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters　　Company : Statoil/Esso/Norsk Hydro
Hole size: 8½"　　Geologist: Pedersen/Tajet　　Date: 4.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
2991	95	Sst, clr, mlky wh, yel brn qtz, fn-crs, subang-subrnd, hd, w srtd	No shows
	5	Clyst/Sh, lt gry, lt grn, rd brn, frm, sl calc	
	Tr	Mica	
	Tr	Lst, wh-buff, occ argil	
2994	70	Sst, a/a	
	25	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Pyr	
	Tr	Mica	
2997	60	Sst, occ dol cmt, occ glau, else a/a	
	35	Clyst/Sh, non calc, else a/a	
	5	Lst, a/a	
	Tr	Pyr	
	Tr	Mica	
3000	90	Sst, med occ crs, else a/a	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	
3003	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3006	90	Sst, med-crs, lse, else a/a	
	5	Clyst/Sh, a/a	
	5	Lst, a/a	
3009	85	Sst, a/a	
	10	Clyst/Sh, a/a	
	5	Lst, a/a	
3012	95	Sst, med-crs, occ fn, else a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	
3015	90	Sst, crs-med, subang-rnd, else a/a	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 8½"   Geologist: Pedersen/Tajet   Date: 4.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
3018	95	Sst, clr, mlky wh, yel brn qtz, med-crs, subang-rnd, lse, w srtd	No shows
	5	Clyst/Sh, lt gry, lt grn, rd brn, frm,	
	Tr	Lst, wh-buff, occ argil	
3021	95	Sst, med-crs, else a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3024		a/a	
3027	100	Sst, a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3030	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3033	100	Sst, a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3036	95	Sst, crs-med, else a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3039		a/a	
3042	100	Sst, a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3045		NO SAMPLE	
3048		NO SAMPLE	
3052	90	Sst, clr-mlky wh, occ yel brn qtz, crs-med, subang-rnd, lse, mod-w srtd, glau	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3054	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 5.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
3057	90	Sst, clr-mlky wh, occ yel brn qtz, crs-med, subang-rnd, lse, mod-w srtd, glau	No shows
	10	Clyst/Sh, lt gry, lt grn, rd brn, frm,	
	Tr	Lst, wh-buff, occ argil	
3060	95	Sst, yel brn, else a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3063		a/a	
3066		a/a	
3069		a/a	
3072	100	Sst, a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3075	100	Sst, fn-crs, else a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3078	100	Sst, grn qtz, crs-fn, else a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3081	100	Sst, mod srtd, else a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3084		a/a	
3087		a/a	
3090		a/a	
3093	95	Sst, clr-mlky wh, yel brn, grn qtz, crs-fn, subang-rnd, lse, mod srtd	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3096		a/a	
3099	90	Sst, a/a	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	

WELLSITE SAMPLE DESCRIPTION

Country: Norway   Area: North Sea   Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters   Company : Statoil/Esso/Norsk Hydro
Hole size: 8½"   Geologist: Pedersen/Tajet   Date: 5.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
3102	90	Sst, clr-mlky wh, yel brn, grn qtz, crs-fn, subang-rnd, lse, mod srtd	No shows
	10	Clyst/Sh, lt gry, lt grn, rd brn, frm	
	Tr	Lst, buff-wh, occ argil	
	Tr	Pyr	
3105	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	
3108	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	
	Tr	Pyr	
3111	90	Sst, a/a	
	10	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Pyr	
	Tr	Mica	
3114	65	Sst, a/a	
	30	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Mica	
	Tr	Pyr	
3117	60	Sst, a/a	
	35	Clyst/Sh, slty, else a/a	
	5	Lst, a/a	
	Tr	Mica	
3120	60	Sst, a/a	
	35	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Mica	
	Tr	Pyr	
3123	60	Sst, a/a	
	35	Clyst/Sh, a/a	
	5	Lst, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 5.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
3126	70	Sst, clr-mlky wh, yel brn, grn qtz, crs-fn, subang-rnd, lse, mod srtd	No shows
	25	Clyst/Sh, lt gry, lt grn, rd brn, frm, slty	
	5	Lst, buff-wh, occ argil	
	Tr	Mica	
3129	90	Sst, a/a	
	10	Clyst/Sh, a/a	
	Tr	Mica	
	Tr	Lst, a/a	
3132	65	Sst, a/a	
	35	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	
	Tr	Pyr	
3135	55	Sst, a/a	
	40	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Mica	
	Tr	Pyr	
3138		a/a	
3141	50	Sst, a/a	
	45	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Pyr	
	Tr	Mica	
3144	50	Clyst/Sh, sl slty, else a/a	
	40	Sst, a/a	
	10	Lst, a/a	
3147	60	Clyst/Sh, a/a	
	30	Sst, a/a	
	10	Lst, a/a	
3150	65	Clyst/Sh, a/a	
	25	Sst, a/a	
	10	Lst, a/a	
	Tr	Pyr	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 5.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
3153	70	Sst, clr-mlky wh, yel brn, grn qtz, crs-fn, subang-rnd, lse, mod srtd	No shows
	25	Clyst/Sh, rd brn, lt grn, lt gry, frm, sl slty	
	5	Lst, buff-wh, occ argil	
	Tr	Pyr	
	Tr	Mica	
3156	60	Clyst/Sh, a/a	
	35	Sst, a/a	
	5	Lst, a/a	
3159	60	Sst, a/a	
	35	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Mica	
3162	65	Sst, a/a	
	30	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Mica	
3165	60	Sst, a/a	
	35	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Mica	
3168	80	Sst, fn-med, else a/a	
	15	Clyst/Sh, a/a	
	5	Lst, a/a	
	Tr	Mica	
3171	70	Sst, a/a	
	25	Clyst/Sh, a/a	
	5	Lst, a/a	
3174	75	Sst, rd brn, clr-mlky wh, else a/a	
	25	Clyst/Sh, a/a	
	Tr	Lst, a/a	

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WELLSITE SAMPLE DESCRIPTION

Country: Norway Area: North Sea Field: Sleipner
Well no: 15/9-15
Coordinates: 58° 18' 07.45"N; 01° 55' 19.67"E
K.B.E.: 25 meters Company : Statoil/Esso/Norsk Hydro
Hole size: 8½" Geologist: Pedersen/Tajet Date: 5.7.82.

DEPT	LITH.%	LITHOLOGIC DESCRIPTION	Shows&Remarks
3177	80	Sst, rd brn, clr-mlky wh qtz, fn-med, subang-rnd, lse, mod srtd	No shows
	15	Clyst/Sh, rd brn, lt grn, lt gry, frm, slty	
	5	Lst, wh-buff, argil	
	Tr	Mica	
3180	95	Sst, a/a	
	5	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3183	85	Sst, a/a	
	15	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3186	80	Sst, a/a	
	20	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3189	65	Sst, a/a	
	35	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3192	100	Sst, a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3195	100	Sst, a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
	Tr	Mica	
3198	100	Sst, a/a	
	Tr	Clyst/Sh, a/a	
	Tr	Lst, a/a	
3200		a/a	

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CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner	WELL NO. 15/9-15	AREA North Sea
CORE NO. 1	INTERVAL from 2805 to 2823.3	CORED 18.3m
REC 18.3 m	100 %	
FORM.	GEOLOGIST Pedersen/Svinddal	DATE 01.07.82

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.
2805	C					P	Sst, clr qtz, fn-med, occ crs, subang-subrnd, mod hd, ptly calc cmt, v argil Streaks of coal shell frags	no shows
2806								
2807	C							
2808								
2809	C							
2810	C							

mu si vf f m c vc

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CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea
CORE NO. 1 | INTERVAL from 2805 to 2823.3 | CORED 18.3m | REC 18.3m | 100 %
FORM. | GEOLOGIST Pedersen/Svinddal | DATE 01.07.82

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.
2811	C						Sst,clr qtz,fn-med occ crs,subang-subrnd,mod hd,ptly calc cmt,v argil Streaks of coal shell frags	no shows
2812								
2813	C							
2814								
2815	C							
2816								

mu si vf f m c vc

4.00.17

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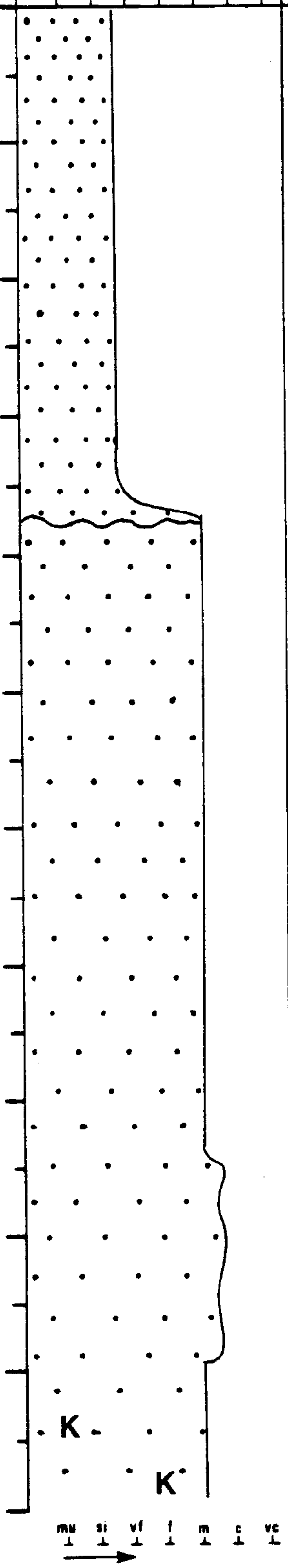
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 1 | INTERVAL from 2805 to 2823.3 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/Svinddal | DATE 01.07.82

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.
2816							Sst,clr qtz,fn-med,occ crs,sub-ang-subrnd,mod hd, ptly calc cmt,v argil Streaks of coal shell frags	no shows
2817								
2818							Sst,slty,clr qtz, med,occ crs,well srtd,subang-subrnd fri,pr-fair por	pr fluor slow strmy mlky wh cut
2819								
2820							Sst,clr qtz,slty, med-crs,mod srtd, kaol,occ calc cmt subang-subrnd,fri	a/a
2821							Sst,clr,wh qtz,slty med,occ med-crs, subang-subrnd,kaol, mod hd	



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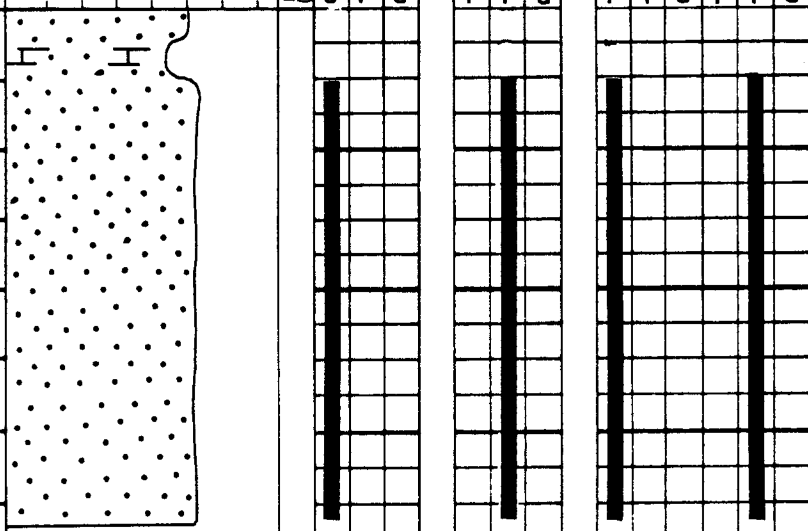
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 1 | INTERVAL from 2805 to 2823.3 | CORED 18.3m | REC 18.3 m | 100 %

FORM. | GEOLOGIST Pedersen/Svinddal | DATE 01.07.82

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.
							Sst,clr,mlky wh qtz,fri-med,calc cmt,subang-subrnd, hd,mod srtd	
2822								
							Sst,lt brn-clr qtz,slty,med,occ crs,subang-subrnd, fri,w srtd	pr fluor slow strmy mlky wh cut
2823								Seal peal: 2822,87 -2823,05



mu si vf f m c vc

4.00.17

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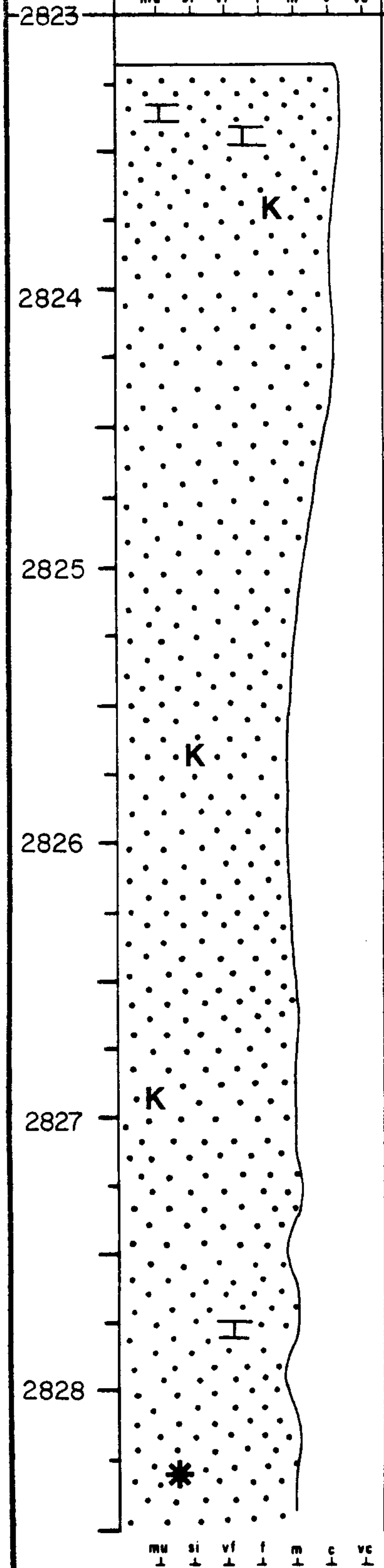
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner	WELL NO. 15/-9-15	AREA North Sea
CORE NO. 2	INTERVAL from 2823.3 to 2841.6	CORED 18.3m · REC 18.3m · 100 %
FORM.	GEOLOGIST Pedersen/Svinddal	DATE 02.07.82

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.



Depth (approx.)	LITHOLOGIC DESCRIPTION	MISC.
2823.3	Sst,clr qtz,crs occ med,subang-subrnd,fri,kaol, occ calc cmt,w srtd	no fluor slow strmy mlky wh cut
2825	Sst,clr-lt brn qtz crs-med,subang-subrnd,ls-fri,w srtd	lt brn stn no fluor slow strmy mlky wh cut
	Sst,clr mlky wh qtz,med occ crs, subang-subrnd,fri, w srtd,kaol	
2826.6	Sst,clr-mlky wh qtz,med,subang-subrnd,fri,w srtd, sl calc cmt,kaol	no stn else a/a
2827.5	Sst,clr-mlky wh, occ buff qtz,med, subang-subrnd,mod hd,w srtd,v calc cmt	a/a
2828.3	Sst,clr-mlky wh, occ gry qtz,med, subang-subrnd,fri, w srtd,calc cmt, tr of glau	a/a

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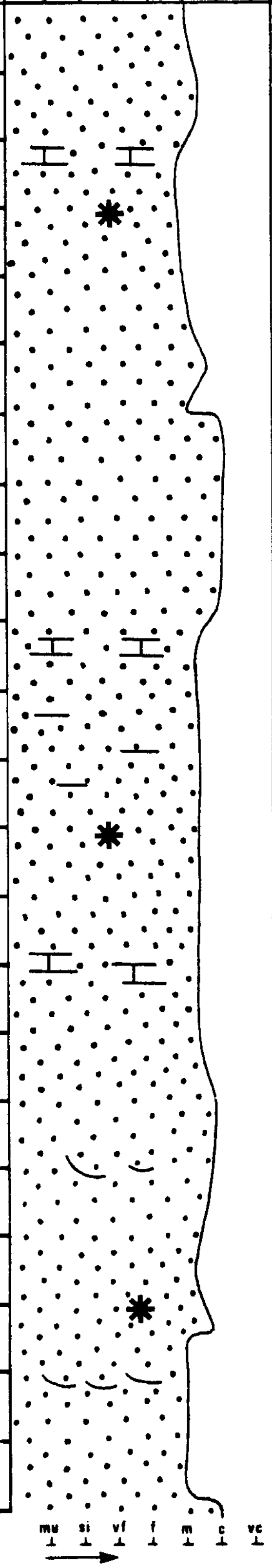
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 2 | INTERVAL from 2823.3 to 2841.6 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/Svinddal | DATE 02.07.82

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.
2829				F		P	Sst,clr-mlky wh, lt brn qtz,crs, occ med,subang-subrnd,fri,w srtd, calc cmt tr of glau	lt brn stn, no fluor fast strmy mlky wh cut
2830				F		P		
2831				F		P	Sst,clr-mlky wh, lt gry qtz,med-crs,subang-subrnd, fri,w srtd,sl calc cmt tr of glau	no fluor slow strmy mlky wh cut
2832				F		P		
2833				F		P	Sst,clr qtz,med -crs,subang-sub-rnd,fri,w srtd, calc cmt tr of glau	no fluor slow strmy mlky wh cut
2834								



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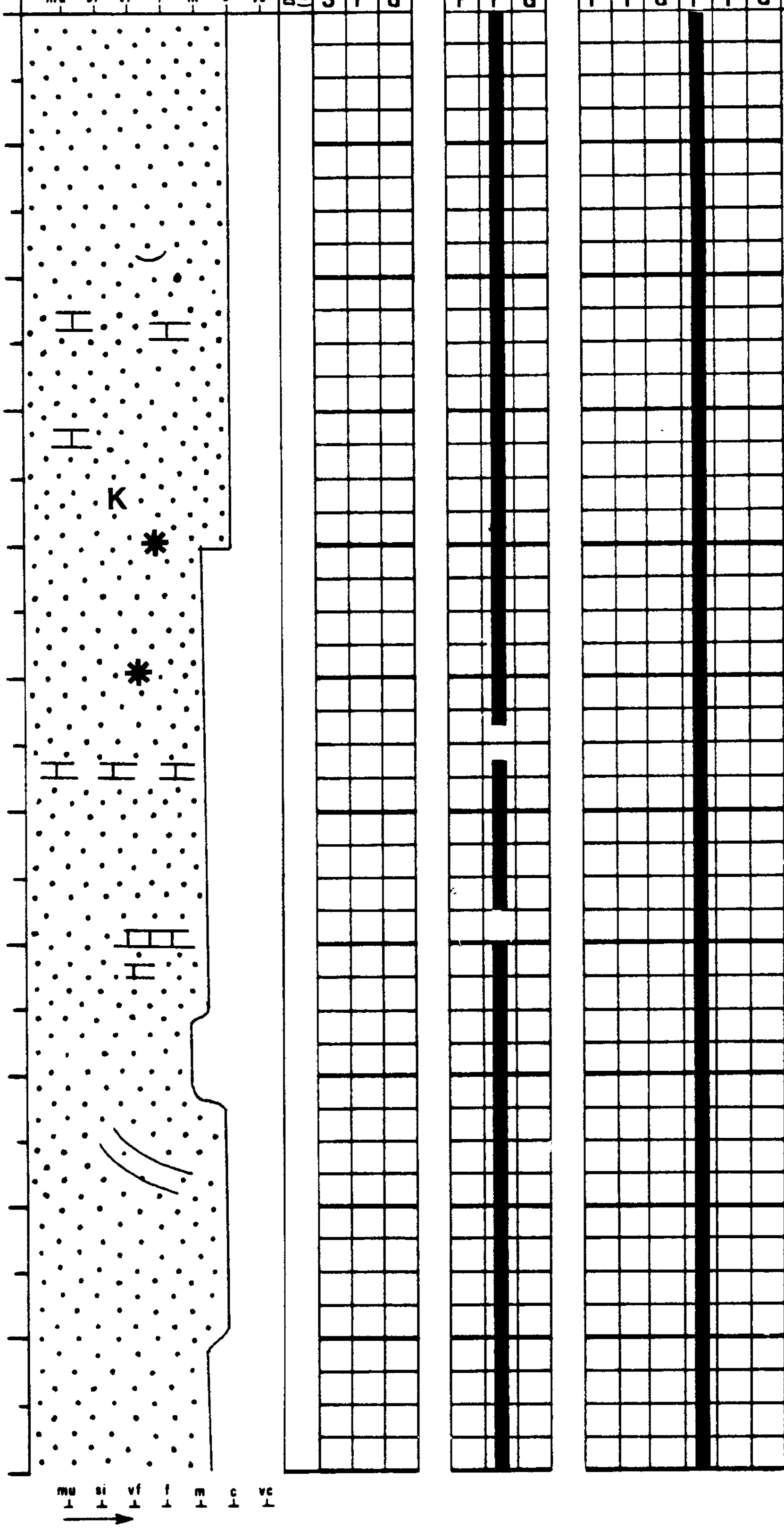
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 2 | INTERVAL from 2823.3 to 2841.6 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/ Svinddal | DATE 02.07.82

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)



DEPTH	LITHOLOGIC DESCRIPTION	MISC.
2834	Sst,clr qtz,fn, subang-subrnd,calc fri	no fluor slow/fast strmy yel/wh cut
2835	Sst,clr-mlky wh, lt gry qtz,fn-crs, subang-subrnd,fri -mod hd,mod srtd, kaol tr glau	no fluor fast strmy mlky wh cut
2836	Sst,clr-mlky wh, lt gry qtz,med, subang-subrnd,fri -mod hd,mod srtd, dol cmt tr of glau	no fluor slow strmy mlky wh cut
2837		
2838		
2839		

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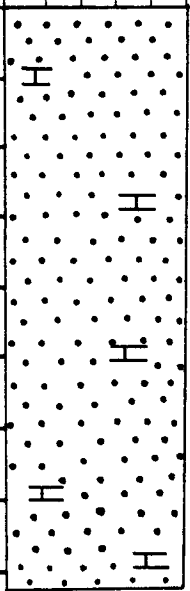
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 2 | INTERVAL from 2823.3 to 2841.6 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/Svinddal | DATE 02.07.82

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.
2840				F		P	Sst,clr,mlky wh, lt gry,fn-crs, subang-subrnd,occ dol and calc cmt	no fluor fast-inst mlky wh cut
2841								no fluor fast strmy mlky wh cut
2842								

mu si vf f m c vc

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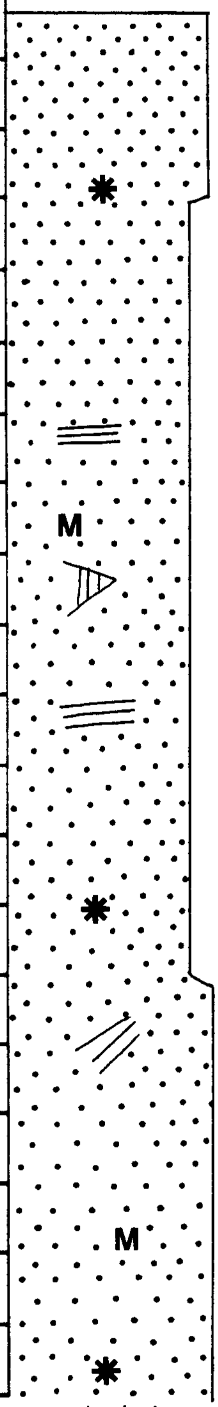
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 3 | INTERVAL from 2841.6 to 2859.9 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/Tajet | DATE 03.07.82

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.
2841							Sst,clr mlky wh qtz,med-crs,subang -subrnd,hd,calc cmt,glau	no fluor fast strmy mlky wh cut
2842								
2843							Sst,clr mlky wh qtz,med,subang-subrnd,hd,calc cmt,mica,glau	no fluor fast strmy mlky wh cut
2844								
2845								Seal peal: 2847,67m-2862,67m
2846							Sst,clr,mlky wh qtz,med,subang-subrnd,hd,calc cmt,mica,glau	no fluor fast strmy mlky wh cut



mu si vf f m c vc

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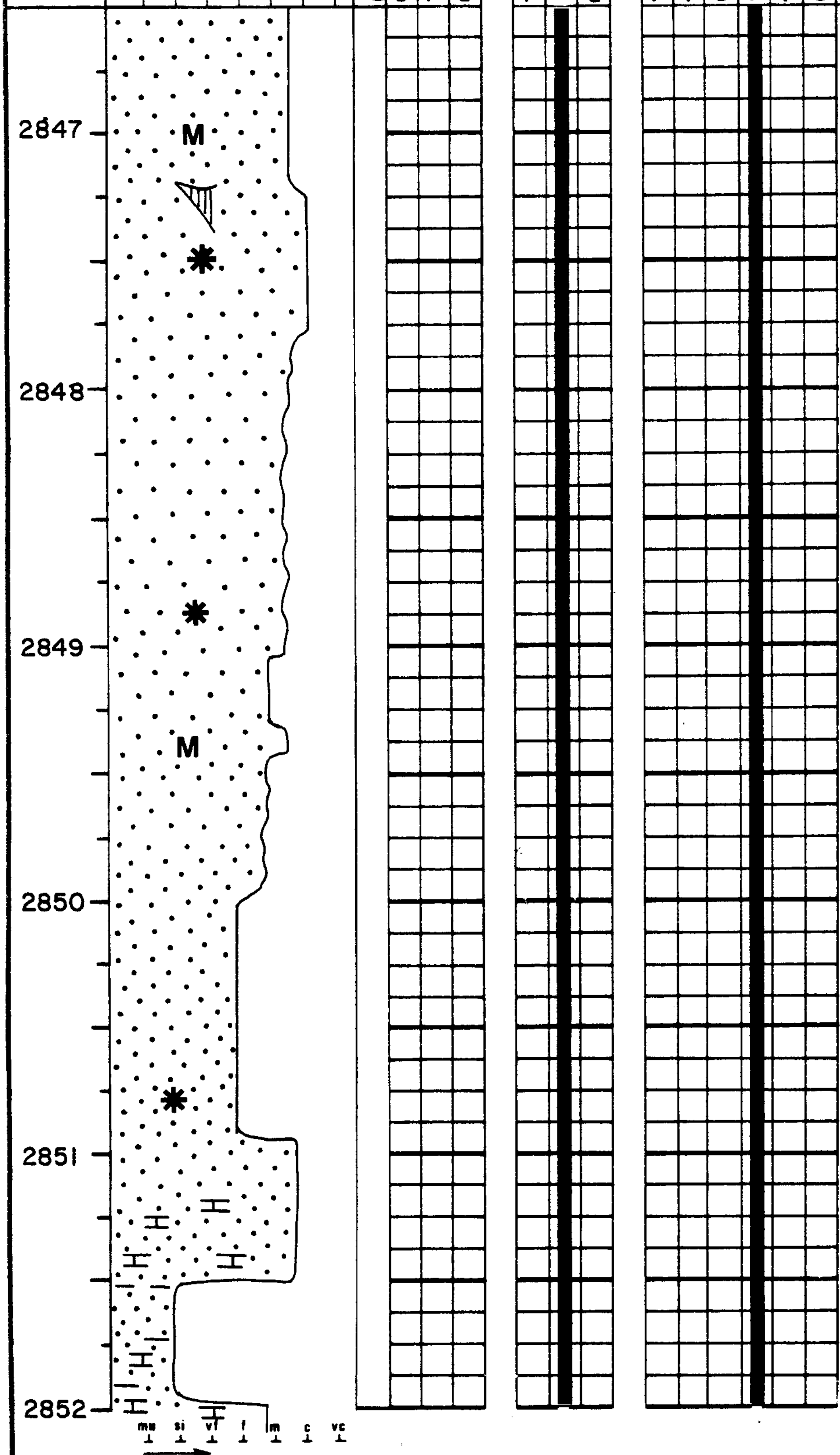
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner	WELL NO. 15/9-15	AREA North Sea
CORE NO. 3	INTERVAL from 2841.6 to 2859.9	CORED 18.3m / REC 18.3m / 100 %
FORM.	GEOLOGIST Pedersen/Tajet	DATE 03.07.82

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.



DEPTH	LITHOLOGIC DESCRIPTION	MISC.
2847		
2848	Sst,clr,mlky wh qtz,med,subang-subrnd,calc cmt, hd,glau,mica	no fluor slow/fast strmy mlky wh cut
2849		
2850	Sst,clr,mlky wh qtz,fn-crs,subang-subrnd,hd,calc cmt glau	a/a
2851	Sst,clr,mlky wh qtz,vfn-fn,subang-subrnd,glau,mica	no fluor slow strmy mlky wh cut
2852		

4.00.17

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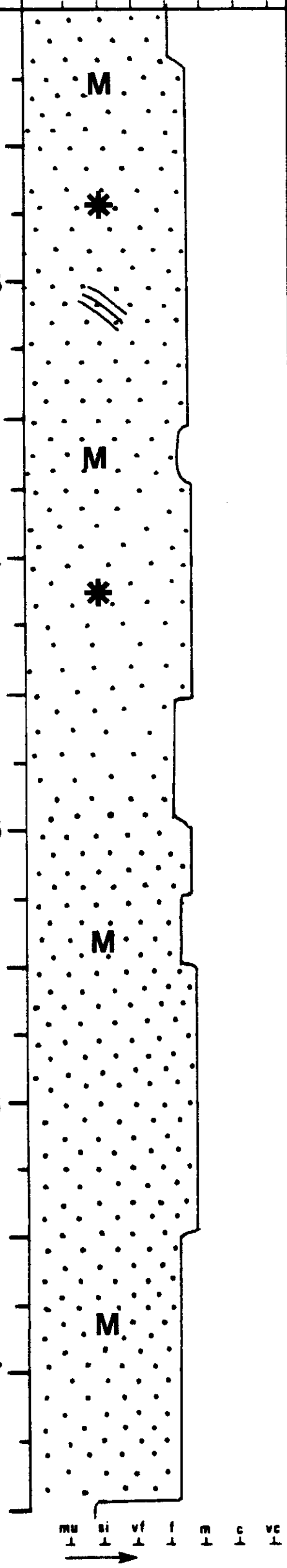
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea
CORE NO. 3 | INTERVAL from 2841.6 to 2859.9 | CORED 18.3m | REC 18.3m | 100 %
FORM. | GEOLOGIST Pedersen/Tajet | DATE 03.07.82

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.
				F		P	Sst,Clr,mlky wh qtz,vfn-fn,subang-subrnd,glau,mica	no fluor slow strmy mlky wh cut
2853				F		P		
2854				F		P	Sst,fn-med,subang-subrnd,calc cmt, fri-mod hd,glau, tr of mica	no fluor fast strmy mlky wh cut
2855				F		P		Seal peal: 2855,72 -2855,92m
2856				F		P	Sst,vfn-fn,subang-subrnd,fri,mica, calc cmt	no fluor slow strmy mlky wh cut
2857				F		P		



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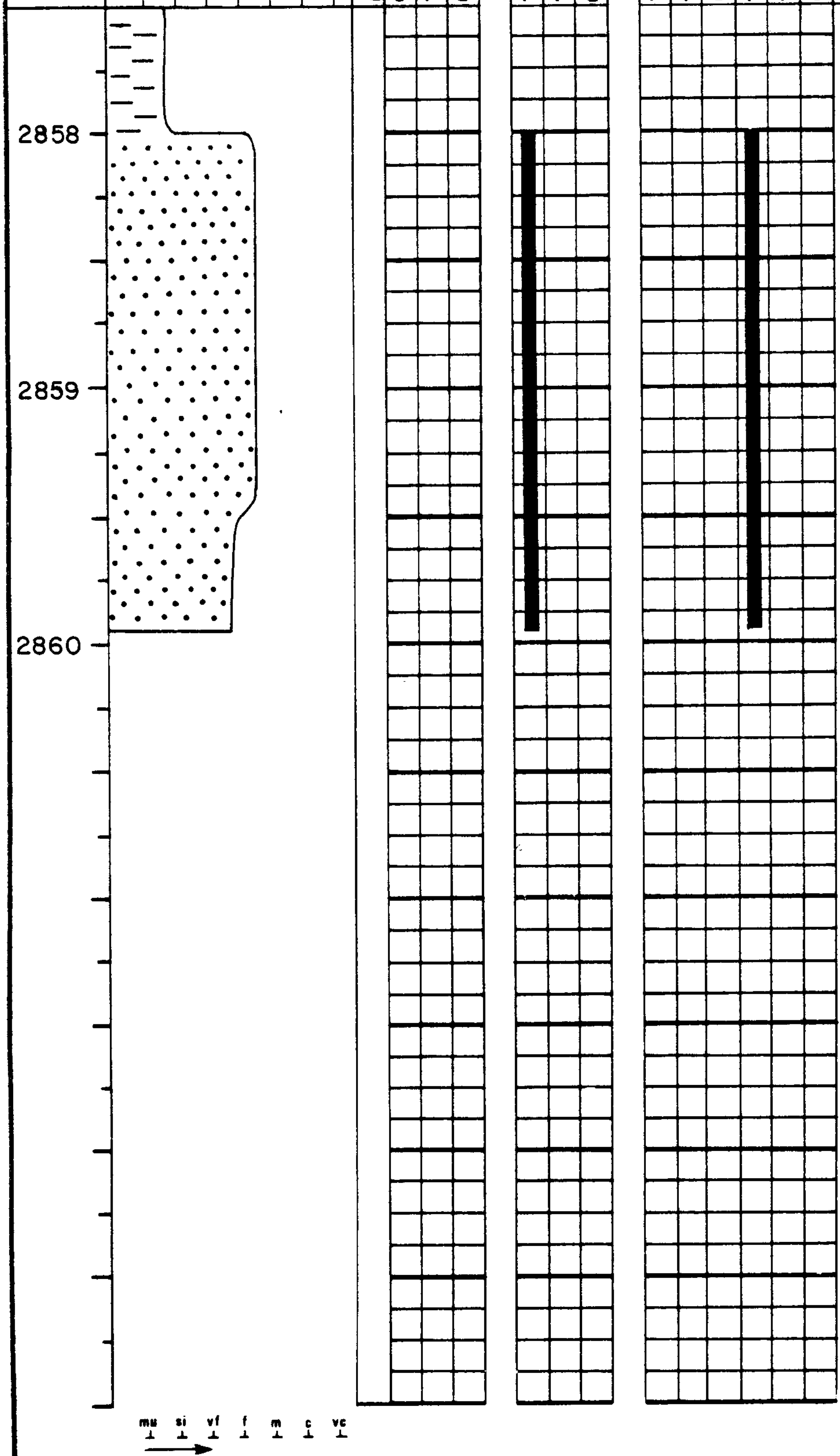
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 3 | INTERVAL from 2841.6 to 2859.9 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/Tajet | DATE 03.07.82

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.
							Sh,grn,slty,mic, calc Sh,red,slty,mic	
							Sst,clr,mlky wh, occ red qtz,fn, subang-subrnd, mica,hd,calc cmt	no fluor slow strmy mlky wh cut



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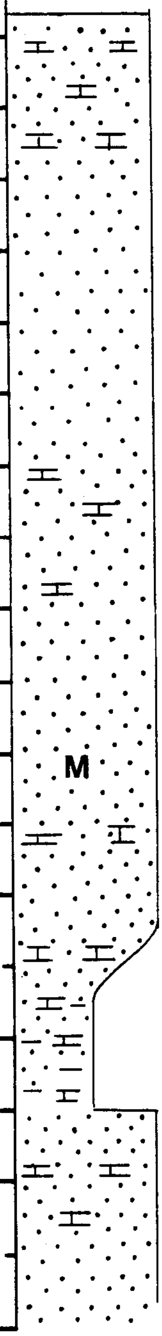
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea
CORE NO. 4 | INTERVAL from 2859.9 to 2878.2 | CORED 18.3m | REC 18.3m | 100 %
FORM. | GEOLOGIST Pedersen/Tajet | DATE 03.07.82

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.
2859								
2860								
							Sst,clr red qtz,fn -slty,mod hd,calc cmt,mica,w srtd	no fluor v-slow strmy mlky wh cut
2861								
2862	M							
							Sst,mlky wh,grn, occ red qtz,slty, vfn-fn,mica,calc cmt	no fluor v slow strmy mlky wh cut
2863								
							Sst, a/a Sh, red,micac Lst,wh-buff,occ argil	no fluor no cut
2864								



mu si vf f m c vc

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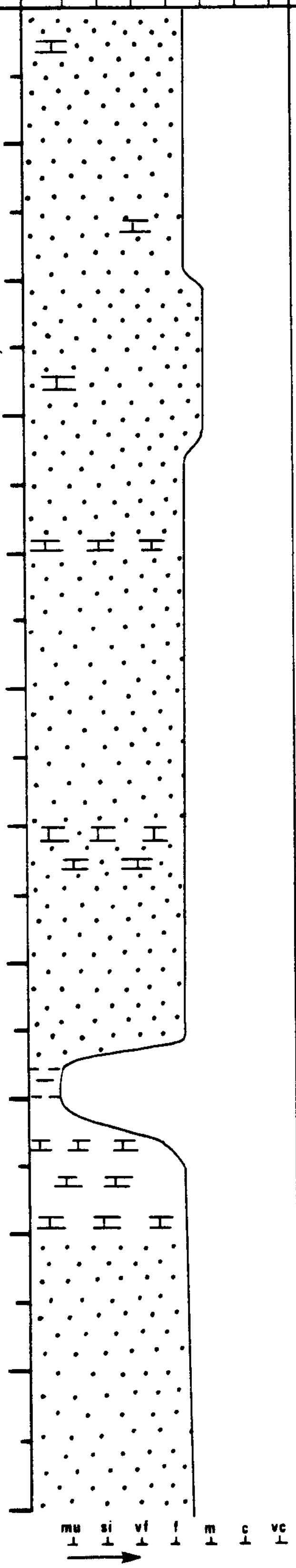
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 4 | INTERVAL from 2859.9 to 2878.2 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/Tajet | DATE 03.07.82

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.
2865							Sst,grn,mlky wh, vfn-fn,micac,calc cmt Sh, red,micac	no fluor slow/ fast strmy yel/wh cut
2866								
2867								
2868							Sh,red,non calc Sst, clr-red qtz, vfn-fn,calc cmt, slty	no fluor no cut
2869								
2870								



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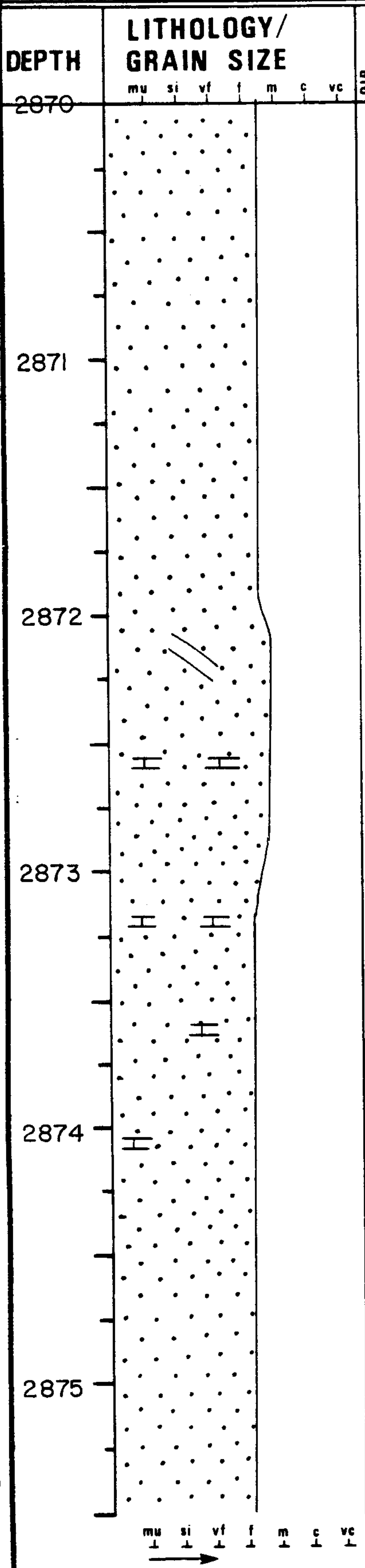
CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea

CORE NO. 4 | INTERVAL from 2859.9 to 2878.2 | CORED 18.3m | REC 18.3m | 100 %

FORM. | GEOLOGIST Pedersen/Tajet | DATE 03.07.82



DEPTH	LITHOLOGIC DESCRIPTION	MISC.
2871	Sst,mlky wh-clr qtz,fn,subang-sub-rnd,sl calc cmt, fri-mod hd	no fluor slow/fast strmy yel/wh cut
2873.5	Sst,clr qtz,fn, subang-subrnd,calc, fri	no fluor slow/fast strmy yel/wh cut

DIP (apparent) | SHOWS: STAIN (S F G) | CUT (P F G) | FLUOR (P F G) | Φ (P F G)

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CONVENTIONAL CORE DESCRIPTION

FIELD Sleipner | WELL NO. 15/9-15 | AREA North Sea
CORE NO. 4 | INTERVAL from 2859.9 to 2878.2 | CORED 18.3m | REC 18.3m | 100 %
FORM. | GEOLOGIST Pedersen/Tajet | DATE 03.07.82

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.
2876	M							
							Sst,grn,mlky wh, vfn-fn,micac,calc cmt	no fluor no cut
							Sh,grn,non calc tr lst,buff-wh	
2877								Seal peal: 2877,46m-2877,62m
2878								
2879								

mu si vf f m c vc

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SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY | AREA: NORTH SEA | FIELD: SLEIPNER
WELL NO.: 15/9-15 | RUN NO.: 1 | INTERVAL: 1287 - 2464
CO ORDINATES: 58° 18'07,45"N ; 01° 55' 19,67"E
K.B.E.: 25 meters | COMPANY: STATOIL / ESSO / N.HYDRO
HOLE SIZE: 12 1/4" | GEOLOGIST: H.Nygård / A. Hesjedal | DATE: 21/6-82

DEPTH	REC. cm	LITHOLOGIC DESCRIPTION	POROSITY	SHOWS
1323	3	cly: med gy, sft, plas, sticky, non-sl calc	Pr.	NO
1465	3	cly: lt-med gy, sft, plas, sticky, sl micromic , non-v sl calc, sl slty	"	"
1592	4.5	cly/clyst: med gy, sft-firm, micromic, calc	"	"
1642	5	cly/clyst: med gy, firm, sl calc, micromic	"	"
1894	5	cly/clyst: med gy-brn, firm, micromic , sl slty, sl calc. Containing small (3x3mm) casts of chalky lst	"	"
		lst: wh, firm-hd		
2022	5.5	clyst: med gy-grn, firm, subfiss, sl slty, sl micromic, non calc	No	
2029	4.5	sst: (lt gy-brn, fri) clr qtz-mlky wh qtz, vf-f, occ med, subang-subrnd, mod srt,	GOOD	"
		pr cem, good vis por, glauc, sl mica, non calc		
2042	3.5	sst: (lt gy brn-fri) : clr qtz-mlky wh qtz, vf-f, subang-subrnd, mod srt, pr cem (sl calc cem)	"	"
		good vis por, glauc, sl mica, containing mm thick lam of cly: lt gy, sft-firm, sticky, sl calc		
2049	4	sst: (lt gy-brn, fri):clr qtz-mlky wh qtz, vf-f, occ med, subang-subrnd, mod srt, pr cem, good vis por, glauc, sl mica, sl calc	"	"
2056	4	sst: (lt gy-brn, fri):clr qtz-mlky wh qtz, vf-f, occ med, subang-subrnd, mod srt, pr cem,	"	"
		good vis por, glauc, sl mica, non calc		
2062	5	cly/clyst: med gy, sft-firm, plas, sticky, calc, slty, thin (mm) lam of ls:clr-wh, xln	Pr.	"
2214	5.5	clyst: med gy, firm, tuff, sl calc,		
		sl slty, micromic, contains small (1x3mm) clasts of lst: wh, chalky, sft-firm	"	"
2231	2.5	clyst: med gy, firm, tuff, non calc, pyr, sl mica, v sl slty, contains calst (3x8mm)	"	"
		of lst: wh, hd, micritic		
2247	0.5	cly/clyst: med gy-brn, firm, sl calc, sl slty, sl mica	"	"

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SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY | AREA: NORTH SEA | FIELD: SLEIPNER

WELL NO.: 15/9-15 | RUN NO.: 1 | INTERVAL: 1287-2464m

CO ORDINATES: 58 ° 18 ' 07.45" N ; 01 ° 55 ' 19.67" E

K.B.E.: 25 meters | COMPANY: STATOIL/ESSO/N.HYDRO

HOLE SIZE: 12 1/4" | GEOLOGIST: H.NYGÅRD / A. HESJEDAL | DATE: 22/6-82

DEPTH	REC. cm	LITHOLOGIC DESCRIPTION	POROSITY	SHOWS
2287	2.5	clyst: med gy, firm, subfiss, micac non calc	Pr.	NO
2325	2.5	clyst: med gy, firm, subfiss, micac,calc,	"	"
2335	3.5	clyst: med gy, firm, subfiss, micac,sl calc, containing small (1mm) clasts of chalky lst	"	"
2342	3	clyst: med gy-grn gy, firm, subfiss, micac, non calc, sl slty	"	"
2365	0.5	clyst: varicol,gy grn-gy brn,firm, v micac, non calc, glauc	"	"
2375	3	clyst: lt-med, gy grn, firm, subfiss, micromicac, sl calc	"	"
2381	2	clyst: lt gy grn, firm, subfiss, non calc	"	"
2387	3	clyst: lt gy grn, firm-mod hd, subfiss, micac,non calc	"	"
2389	2	clyst/sh: lt gy grn, firm-mod hd, subfiss, micac,non calc	"	"
2416	3	clyst/sh:lt gy grn-lt gy brn, firm-mod hd, subfiss, mica, v calc, grding to marl,contains frag of wh chalky lst	"	"
2455	1.5	lst: wh, hd, micritic (chalky)	No vis por	"
2464	2	lst: wh, mod hd-hd, micritic (chalky) contains occ small incl of xln lst: clr, contains also thin lam of clyst: med gy brn-brn, firm, micac, calc, grding to marl	"	"
		NO RECOVERY AT 1287m, 2267m, 2302m, 2427 m		

4.00.15

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SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY	AREA: NORTH SEA	FIELD: SLEIPNER
WELL NO.: 15/9-15	RUN NO.: 2	INTERVAL: 2734-3189m
COORDINATES: 58 ° 18 ' 07.45" N ; 01 ° 55 ' 19.67" E		
K.B.E.: 25 meters	COMPANY: STATOIL/ESSO/N.HYDRO	
HOLE SIZE: 8½"	GEOLOGIST: TAJET	DATE: 8/7-82

DEPTH	REC cm	LITHOLOGIC DESCRIPTION	POROSITY	SHOWS
2734	1	clyst: calc, lt gy, fri, tr of mica, slty		NO
2740	1	lst: wh-buff, mod hd, occ arg		"
2762	2.5	sh: dk gy-blck, firm, sl calc, micromic		"
2768	4.5	sh/clyst: dk gy-blck, firm, calc, micromic		"
2777	4	~~sh:dk gy-blck, firm, calc, micromic~~		"
2793	4	sh/clyst: dk gy-blck, med gy, sft-firm, slty, calc		"
2944	3.5	clyst/sh: red-brn, sft, calc, micromic slty		"
2985	3.5	clyst/sh: red-brn, sft, calc, slty sltst: sdy, lt gy qtz, fri, tr mica		"
2990	2.5	sltst: sdy, lt gy, occ clr qtz, fri-lse, micromic		"
		NO RECOVERY AT: 2783m, 2891m, 2895m, 2902m, 2912m, 2917m, 2930m, 2935m, 2940m, 2971m, 2979m, 2998m, 3010m, 3093m, 3099m, 3111m, 3121m, 3147m, 3167m, 3182m, 3189m		

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SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY | AREA: NORTH SEA | FIELD: SLEIPNER
WELL NO.: 15/9-15 | RUN NO.: 3 | INTERVAL: 2670-3189m
COORDINATES: 58° 18' 07,45" N ; 01° 55' 19,67" E
K.B.E.: 25 meters | COMPANY: STATOIL/ESSO/N.HYDRO
HOLE SIZE: 8½" | GEOLOGIST: TAJET | DATE: 9/7-82

DEPTH	REC cm	LITHOLOGIC DESCRIPTION	POROSITY	SHOWS
2670	2	clyst: red-brn, firm, subfiss calc-v calc, grd into marl lst: wh-buff, mod hd, arg		NO
2695	1.5	clyst: lt gy, sft, v calc, slty and limy		"
2783	3	sh/clyst: dk gy- blck, med gy, occ red-brn, sft-firm, calc		"
2885	2	sst: clr, mlky wh qtz, vf-med, subang-subrnd, fri, mod srtd, sl calc cmtd, micac		gas cut
2887,5	2	sst: a/a sh/clyst: lt grn, firm, sl calc		gas cut
2902	3	sh/clyst: red-brn, lt grn, firm, sl calc, sl slty		NO
2907	2.5	sst: clr mlky wh, occ red qtz else a/a		gas cut
2910	2	sst: calc else a/a		gas cut
2912	2	sst: a/a sh/clyst: lt grn, firm, sl calc		gas cut
2915	0.5	sst:a/a		NO
2917	3	sst: a/a sh/clyst: a/a		gas cut
2925	2	sst: occ dol cmtd else a/a sh/clyst: a/a		NO
2935	2	sh/clyst: lt grn, firm sst: a/a		"
2937,5	2	sh/clyst: lt gy, lt grn, firm, micromic, sdy		"
2940	2	sst: clr-mlky wh qtz, vf, subrnd, well srtd, slty		"
2971	2	sst: lt grn, sl calc, else a/a sh/clyst: red-brn, firm, calc		"
2979	0.5	sst: clr-mlky wh, yel/brn qtz, f-med, subang-subrnd, fri, well srtd, micromic		"
3099	1	sh/clyst: lt grn, red-brn, firm, occ sl calc, slty		"
3167	2.5	sltst: red-brn, fri, shly		"
		NO RECOVERY AT: 2891m, 2895m, 2930m, 2998m, 3010m, 3093m, 3111m, 3121m, 3147m, 3182m, 3189m		

4.00.15

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SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY | AREA: NORTH SEA | FIELD: SLEIPNER
WELL NO.: 15/9-15 | RUN NO.: 4 | INTERVAL: 2701- 3194m
COORDINATES: 58° 18' 07,45"N ; 01° 55' 19,67" E
K.B.E.: 25 meters | COMPANY: STATOIL/ESSO/N.HYDRO
HOLE SIZE: 8 1/2" | GEOLOGIST: TAJET | DATE: 9/7-82

DEPTH	REC. cm	LITHOLOGIC DESCRIPTION	POROSITY	SHOWS
2701	3	clyst: red-brn, med-dk gy, lt gy-grn, calc-v calc, grdng into marl, occ slty		NO
2723	2	clyst: red-brn, calc-v calc, occ slty		"
2741,5	2.5	sh/clyst: med-dk gy, lt gy-grn, calc-v calc, firm		"
2752,5	3,5	sh/clyst: med-dk gy-blck, firm, sl calc		"
2885	1	sst: clr mlky, wh qtz, vf-med, subang- subrnd, fri, mod srtd, calc cmtd, mica		"
2891	1,5	sst: a/a		
2895	4	sh/clyst: red-brn, sft, calc-v calc, mica		"
2907	1	sst: sl calc cmtd, else a/a		gas cut
2911	1	sst: calc cmtd, else a/a		NO
2915	2	sst: a/a sh/clyst: lt grn, sft-firm, sl calc		gas cut
2918	2	sst: clr mlky, wh, occ red and grn qtz, else a/a		"
2925	1	sst: occ dol cmtd, else a/a		NO
2937,5	3	sst: slty, else a/a		gas cut
2998	2	sst: red-brn, clr mlky wh qtz, f, subang-subrnd, fri, occ dol cmtd, well srtd		"
3010	0.5	sst: occ slty, mica, sl calc,else a/a		"
3021	1,5	sst: clr mlky, wh qtz, med, subang-subrnd, fri, well srtd, sl calc cmtd		"
3038	2	sst: occ red and grn qtz, med-crs, else a/a		"
3055	1,5	sst: fn-med else a/a		"
3072	2,5	sst: red-brn, clr mlky, wh qtz, else a/a		"
3093	2	sst: a/a sh/clyst: red-brn, lt grn, calc, occ slty		"
3111	3	sst: slty, lt grn, vf, fri, well srtd		
3121	2	sltst: red-brn, shly		

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SIDEWALL CORE DESCRIPTION

COUNTRY: NORWAY	AREA: NORTH SEA	FIELD: SLEIPNER	
WELL NO.: 15/9-15	RUN NO.: 4	INTERVAL: 2701 - 3194m	
CO ORDINATES: 58 ° 18 ' 07,45" N ; 01 ° 55 ' 19,67 "			
K.B.E.: 25 meters	COMPANY: STATOIL/ESSO/N.HYDRO		
HOLE SIZE: 8 1/2"	GEOLOGIST: TAJET	DATE: 9/7-82	

DEPTH	REC. cm	LITHOLOGIC DESCRIPTION	POROSITY	SHOWS
3147	3	sltst: red-brn, fri		NO
3182	2	sh/clyst: red-brn, lt grn, firm, slty, sl calc		"
3189	2,5	sh/clyst: a/a		"
3194	3	sltst: red-brn, fri, shly, calc		"
		NO RECOVERY AT 2930m, 3107m, 3128m, 3173m		

4.00.15

III DRILLING REPORT

III I SUMMARY

III 1. SUMMARY

Well 15/9-15 was a wildcat well designed to evaluate possible hydrocarbons in the Frigg sandstones,Heimdal sandstones,Jurassic and Jurassic/Triassic sandstones.

The well was drilled into sandstones of Triassic age to a total depth of 3200 m. The drilling was performed by "Ross Rig".

Some problems were experienced with the BOP stack after the 20" casing was set. A significant volume of mud was lost while drilling the 12 1/4" hole. Approximately 3 days was spent on locating the thief zone and pumping LCM pills in attempt to control these mud losses.

A total of 66 days were spent on this well and the overall cost reported from the rig was around 53 million kroner.

III 2 DRILLING OPERATIONS IN INTERVALS

Drilling operations in intervals.

The well was anchored in 83 m water the 28th of May 1982.

Well 15/9-15 was spudded in at 1930 hrs the 28th of May.

The final position was: 50^{o} 18' 07.35" N
01^{o} 19. 28" E

36" hole, 108- 171,5 m

The 36" hole was drilled with a 26" bit and a 36" holeopener, without temporary guide base. Seawater was used with returns to seafloor. The rate of penetration was 12-30 m/hour. The hole was displaced with hi-vis mud. The 30" casing was made up with a permanent guide base. There were no problems by running and cementing the 30" casing with the shoe at 171,5 m. After drilling out the shoe with 26" bit, the riser and pinconnector were run and diverter system installed.

26" hole, 171,5 - 515 m

This section was first pilot drilled with a 12 1/4" bit to 515 m, using 1.11 S.G mud. The average rate of penetration was 23 m/hour and maximum recorded back ground gas was 2,1% at 297 m. After logging, the hole was opened to 26", using 12 1/4" bit, 17 1/2" hole opener and 26" underreamer. The riser was displaced with seawater and pulled. The hole was displaced with 1,22 S.G. mud after a wiper trip with 26" bit. No drag was experienced when pulling out. There were no problems by running and cementing the 20" casing with the shoe at 498 m.

17 1/2" hole 515 - 1192 m

Before drilling this section the BOP stack was tested and run. After having landed the stack a BOP test was attempted. Lower inner kill did not close and the BOP stack was pulled. After a successful test on surface the BOP was attempted to be run.

A small bulge in the slip joint was found. 10,5 hours was spent waiting on new slip jt. After having run the BOP stack a leak on the kill line goose neck was found. A new goose neck was installed. After drilling out the 20" casing a leak off test equivalent to 1,65 S.G mudweight was conducted. 17 1/2" hole was drilled to 2478 m. A gyp/lignosulfonate mud was used in this section. Some drag was experienced on trips but tight hole did not cause any problems. Maximum reported overpull was 27 mt. The average penetration rate was 27 m/hr. The mudweight used in this section was 1.15 S.G. The background gas in this section varied from 0,5-2% from 515 m to approx. 1000 m, were it started to go even lower. Maximum short trip gas was recorded to 25,8% at 773 m. The onsite estimated porepressure was 1,03 S.G (Normal gradient). The hole was logged and 13 3/8" casing was run and cemented without problems. 13 3/8" casing shoe was set at 1178 m.

12 1/4" hole, 1192 - 2478 m

After drilling out the 13 3/8" casing shoe, a leak off test equivalent to 1,68 S.G mudweight was performed.
A significant volume of mud was lost while drilling at 2200 m. the only feasible thief zone in the open hole was the Frigg sand. Nearly 3 days was spent on locating the leak and pumping LCM pills in attempt to control these mud losses.
The hole was drilled to 2478 m. Rate of penetration were controlled and kept between 25 and 30 m/hour. Overpull and tight hole was experienced on most wiper trips. After the delay in drilling the familiar problems associated with this hole section began to be encountered. Tight hole made considerably reaming when drilling down to 2478 m. 3 sidewall coresamples was taken in the Frigg formation.

The maximum mudweight used in this section was 1.20 S.G. A gyp lignosalfonate mud system was used. The level of background gas in this section fell from 1 to 1,5% in the top of the section to 0,1% towards the bottom. Connection gases were regularly of the order of 5 to 6%. On site estimated porepressure was 1,13 S.G at 2170 m before returning to normal.

After the hole was logged, 9 5/8" casing was run and cemented with the shoe at 2463 m. A total of 6.4 m^3 of returns was lost during the displacement.

8 1/2" hole, 2478 - 3200 m

After drilling out the 9 5/8" casing shoe, a leak off test equivalent to 1,87 S.G mudweight was performed. The hole was drilled to 2805 m were the first corerun was made. A total of four cores were cut from 2805 m to 2878 m. A 6 3/4" corebarrel with 8 15/32" corehead was used.

The hole was drilled to a total depth of 3200 m and a final logging run was made. RFT-measurements showed a maximum porepressure equivalent to 1,22 S.G mudweight in the jurassic/triassic sandstones.
The maximum mudweight used in this section was 1,50 S.G. A gel/lignosalfonate mud system was used in this hole section. The average rate of penetration was 4 m/hr down to the jurassic/triassic sandstones and 11 m/hr through the sand. No severe drag was experienced in this section.
Down to 2728 m the back ground gas was below 0,1%. At this point it started to increase and a peak of 4,7% was observed at 2730 m. From 2728 m to 3004 m the background gas varied from 0,5% to 4% with peak of 7,43% at 2828 m. Below 3004 m the gas readings dropped and values between 0,02% and 0,23% was registrated. The 7" liner was run and cemented without any problems. The 7" liner shoe was set at 3199 m and the liner lap had to be squeezed twice.

Testing

Two tests were performed in this well.

DST no. 1: 2880 m to 2890 m
DST no. 2: 2830 m to 2850 m

Had problems to bleed off tubing pressure after the shut in period during DST no. 1 and no. 2, due to leaking L.P.R valve.

III 3 EXTRACT OF DAILY ACTIVITIES

III 3. Extract of daily activities

28.05.82 Under way from 15/9-13 to 15/9-15. Anchor handling. Pulltested all anchors to 200 MT and made up 36" BHA. Tagged seabed and spudded in at 19^{30} hrs. Drilled 36" hole from 108 m to 150 m.

29.05.82 Drilled 36" hole from 150 m to 171,5 m. Pumped 4,7 m^3 high visc. mud on each conn. Pumped 9 m^3 high visc mud. Displaced w/40 m^3 seawater. Displaced holde w/55 m^3 high visc. mud. Dropped totco. PO to 128 m. Retrieved totco. RIH and displaced hole w/55 m^3 high visc. mud. POOH. Ran 5 jts of 30" casing incl. housing jt and shoe. Filled every jt. Installed guide base and stabbed 30" casing in hole. Ran SSTV, bottom of guide base buried in soft silt. Unable to read reagan's bull eye. Pressure tested surface lines to 137 bars. Mixed and pumped cement. Displaced w/3,97 m^3 water. No backflow. Backed out 30" casing running tool and POOH. Changed out lower kelly cock. Pressure tested upper and lower kelly cocks to 345 bars.

30.05.82 RIH w/26" bit to 30" wh. Ran SSTV + guide frame. Washed wh and guide base. Reagan's bull eye read 1/2 deg. Unable to see how high guide base is above w.h. Stabbed into w.h. and RIH. Tagged top of cement at 168,5 m. Drilled 3m firm cement, shoe, 1m cement below shoe and 2m new hole to 175m. Displaced hole with 27 m^3 high visc. mud PO to 106m. Function tested pin. connector in moonpool. Ran pin connector and riser. Pulltested to 13,6 MT. Installed diverter. RIH w/12 1/4 bit and tagged bottom at 175m. Function tested diverter and flushed through both diverter lines. Drilled 12 1/4" pilot hole from 175m to 282m.

31.05.82 Drilled 12 1/4" pilot hole from 282m to 401m. Flowchecked at 212m, 250m, 260m, 275m, and 296m due to drilling brake. Drilled 12 1/4" pilot hole from 401m to 515m. Flow checked at 300m and 317m. Displaced hole w/9,5 m^3 high visc. mud and dropped survey. POOH. Ran logs: ISF-sonic. Tested 26" underreamer. Made up 12 1/4" bit 17½" holeopener and 26" underreamer and RIH. Opened 12 1/4" pilot hole to 26" from 175m to 200m.

01.06.82 Opened 12 1/4" hole to 26" from 200m to 405m. POOH. Tested new underreamer on kelly and RIH. Opened 12 1/4" hole from 405m to 515m while increasing mudweight from 1.12 S.G. to 1.22 SG. Circ. hole clean.

02.06.82 POOH to 107m. Observed well and displaced riser w/seawater. Unlatched pin connector and laid down diverter, riser and pin connector. RIH w/26" bit to 515m. Displaced hole w/175 m^3 1,22 S.G mud. POOH. Ran 31 jts of 20" casing. 94 lbs/ft, x-56 Pull tested with 18 MT.

03.06.82 Tested surface lines to 207 bars. Mixed and pumped cement. Displaced with 70,3 m^3 sea water and bumped plug w/103 bars. No backflow. Backed out running tool. RIH w/jetting tool and washed wellhead. Slipped and cut drilling line. Changed A-X ring gasket wellhead conn. metal seal. Tested annular preventer no.1 and no.2 and riser conn. to 241 bar. Tested kill and choke hoses to 690 bar. Changed pod valve for w.h. conn. on yellow pod. Was unable to function w.h. conn. Found ring on pod stinger for w.h conn. turned 180 DEG to female. Function tested all acoustic functions on both pods. Changed both seals on goose neck for kill line. Finished installing 6 extra 15 gallon accumaulator bottles as required by NPD.

04.06.82 Ran BOP. Pull tested to 22,6 MT. Ran comb. tool. Tested BOP on yellow pod. Pipe ram no. 2 and 3 + inner and outer choke to 517 bar. OK. Lower inner kill valve failed to test. Unable to close same. Did several attempts. Tried same on blue pod. Negative. Pulled comb. tool. Pulled BOP. Function tested lower inner kill valve and pressure tested same to 517 bar OK. Tested BOP on blue pod. OK. Ran BOP. Tested K/C lines to 517 bar every 2nd joint. Found small bulke on slip joint.

05.06.82 Waiting on slip joint. Ran BOP. Tested K/C lines to 517 bar. Pulltested w/18 MT. Ran comb. tool. Tested BOP on yellow pod. Found leak in kill line goose neck. and changed seal on same, still leaking. Changed goose neck while testing BOP. POOH w/comb. tool. and tested 20" casing to 55 bar against shear ram. RIH w/wear bushing. Had 2 misruns. RIH w/17½" bit and tagged cement at 484m. Function tested diverter. Drilled out casing and 3m new formation. Had 6m firm cement below shoe.

06.06.82 Circ. prior to leak off. Performed leak off eqv. to 1,65 S.G. Drilled 17½" hole from 518m to 617m. Flowline plugged once. Circ. and dropped survey at 611 m. POOH to 20" csg shoe and retrieved survey. RIH to TD, no fill. Drilled 17½" hole from 617m to 712m. Flowchecked at 681m. OK. Circulated and dropped survey at 706m. Retrieved survey and RIH. Drilled 17½" hole from 712m to 724m. Circ. due to high gas reading from short trip. Drilled from 724-806 m. Increased mud weight from 1,09 to 1,15 S.G. Circ. and dropped survey at 800m. POOH to 712m. Tight spot at 736m. Max. overpull 13.6 MT. Retrieved survey. RIH.

07.06.82 Drilled 17½" hole from 806-900m. Flowchecked at 824, 859, 833, 892m due to drilling break. OK. Circulated for survey, max. gas 1,6% from drilling break at 892m. Circ. worked pipe, max. gas 1,6%. Ran survey at 894m and retrieved survey. Drilled 17½" hole from 900-1008m. Flow checked at 941m. OK. Circulated and dropped survey at 1002m. Drilled from 1008-1102m. Circ. and dropped survey at 1096. Drilled 17½" hole from 1102m to 1192m. Circ. bottom up, max. gas 1,0%.

08.06.82 Made short trip to 20" csg. shoe. Tight from 1192 to 1125m. Max. overpull 27 mt. Tight spot at 703m, 18 mt overpull. Circ. hole clean. Dropped survey at 1186m. POOH to log. No drag. Rig up Schlumberger to log.
Run no. 1: ISF/SONIC-GR
Run no. 2: LDT-GR
Rigged down Schl. RIH w/17½" bit to TD.
No fill. Circ. and cond. mud, max. gas 2,2%. POOH. No drag. Washed wellhead for 10 min. on way out. RIH and retrieved wear bushing. Rig up and ran 13 3/8" csg.

09.06.82 Cont. to run 13 3/8" csg, 68 lb/ft, K-55. Ran a total of 85 jnts. Landed on landingstring. Made up cement head and circ. 79,5 m^3 mud. Press. tested surface line to 207 bar. OK. Pumped 3,2 m^3 water ahead, mixed and pumped cement. Displaced w/79 m^3 mud. Plug sheared w/138 bar. Bumped plug with 138 bar. No backflow. Backed out running tool and retrieved it. RIH w/jet tool and washed wellhead. RIH w/seal assy and testet same to 172 bar. OK. Tested BOP on blue pod to 172 bar. OK. Functiontested BOP on yellow pod. Pulled out seal assy and tested 13 3/8" csg. against shear ram to 172 bar. OK. RIH and sat wear bushing. POOH. Broke and laid down excess drill pipe.

10.06.82 Laid down 17½" BHA. Made up 12 1/4" BHA and RIH. Tagged top of firm cement at 1151m. Drilled cement, plugs and float. Drilled cement from 1153m to 1181m and washed down to 1191m. Circ. and cond. mud. Took slow pumprate. Drilled new formation from 1191m to 1194m. Circ. Tested lines to 138 bar O.K. Leak off pressure at 62 bar w/1,14 m.w.
Leak off: 1,68 S.G. eqv. mud weight.
Drilled 12 1/4" hole from 1194-1284m. Flowchecked due to drilling brake at 1284m, O.K. Circ. and dropped survey. Retr. survey and RIH to TD. No fill. Drilled 12 1/4" hole from 1284-1379m. Reamed tight spot at 1291m.

11.06.82 Circulated and dropped survey. Retrieved survey and RIH to TD. Drilled from 1379-1473m. Circ. and dropped survey. Drilled 12 1/4" hole from 1473-1566m. Flowcheck at 1547m. OK. Circ. and dropped survey. Short trip to shoe. Tight spot at 1469m. Drilled 12 1/4" hole from 1566-1660m. Circ. and dropped survey. Short trip to shoe. Tight hole from 1603-1576m and at 1536m.

12.06.82 Drilled 12 1/4" hole from 1660-1751m. Circ. and dropped survey. Retrieved survey, tight spot at 1700m. Drilled 12 1/4" hole from 1754-1834m. Flowcheck due to drilling brake. OK. Circ. bottom up for samples. Drilled 12 1/4" hole from 1834-1848m. Circ. and dropped survey. Retr. survey and RIH. Tight spot at 1804m. Drilled 12 1/4" hole from 1848-1915m.

13.06.82 Cont. drilling to 1946m. Flowcheck due to drilling brake. OK. Circ. bottom up for samples. Dropped survey, retrieved same and RIH. Tight spots at 1908m and 1872m. Circ. bottom up and circ. hole clean. POOH to change bit. RIH. Drilled from 1946-2030m. Circ. bottom up for samples. Drilled 12 1/4" hole from 2030-2049m. Flowcheck at 2033m. OK. Circ. dropped survey. Retrived same and RIH. Tight hole from 1950-1945m. Drilled 12 1/4" hole from 2049-2100m.

14.06.82 Cont. drilling to 2142m. Circ. and dropped suvey. Retrieved it and RIH. Tight spot at 2094m and tight hole from 2085-2065m. Drilled from 2142m to 2228m. Lost 8 m^3 mud w/drilling. Circ. and dropped survey. Pumped L.C.M pill. Retrieved survey. Misrun. Circulated at 1176m. Slipped and cut drill line. Observed well, no loss. RIH to 2228m. No fill. Circ. at 2226.

15.06.82 Pumped L.C.M pill. POOH. P/U kelly at 1442 due to swabbing, worked pipe. Circ. at low rate. No loss. POOH to 1145m. Observed well and circ. bottom up. Circ. for 2 hrs. POOH. Ran in hole to 116m w/packer, set same and tested seal assy. and upper part of csg. to 34,5 bar. OK. POOH. RIH w/packer to 1108m, set it and tested csg to 69 bar. OK. POOH w/packer. RIH w/12 1/4" bit to 1178m. Broke circ. and circ. at 35, 70, 105 and 150 bar. No loss. Cont. RIH to 1443m. Circ. and ran in hole to 1656m.

16.06.82 Circ. at 35, 70 and 105 bar. No loss. RIH: Tight spot at 1651m. P/U kelly and reamed tight spot to 1660m. Circ. No loss. RIH to 1742m. Hole was tight. P/U kelly and broke circ. at low pumprate. Reamed to 1767m and circ. RIH to 1790, tight hole. Reamed from 1790-1821m. Circ. at 1820m. Tight hole. Reamed and washed to 2228m.

17.06.82 Circ. bottom up. Dropped survey. Tried to POOH. Tight at 2215m. P/U kelly and pumped out to 2193m POOH to 2070m. Pumped LCM pill. POOH. Tight spots at 2019 and 2015m. Cont. to POOH to 1172m. Retrieved survey. Broke circ. RIH. Washed and reamed from 2196-2228m. Circ. bottom up. Drilled 12 1/4" from 2228-2303m.

18.06.82 Circ. and dropped survey. POOH to 1898m. Tight hole at 2246. P/U kelly and worked pipe. Retrieved survey. RIH. Reamed tight hole from 2193-2233m. Drilled from 2303-2329m. Circ. for sample at 2329m. Drilled 12 1/4" hole from 2329-2410m. Circ. and dropped survey. POOH. Tight spot max overpull 31,8 MT. Circ. and worked pipe. POOH and retrieved survey. RIH

19.06.82 Reamed from 2220-2276m. Drilled 12 1/4" hole from 2410-2422m. Circ. POOH. Tight spot at 2353m. Max overpull 33MT. Circ. and worked pipe. POOH. Retrieved wear bushing and ran test tool. Tested BOP to 172 bar. OK. Retrieved test tool and set wearbushing. RIH w/12 1/4" bit, washed and reamed from 2380-2422m. Drilled 12 1/4" hole from 2422-2437m.

20.06.82 Cont. drilling to 2453m. SPR at 2436m. Drilled down to 2478m. Circ. and dropped survey. Stuck pipe after survey was taken. Worked pipe free. Cont. circ. and worked pipe. POOH to 1900m retrieved survey and RIH to TD. Tight spot at 2470m. Washed and reamed from 2470-2478m, POOH to 2206m og RIH to T.D. Circ. cond. mud POOH. Strapped pipe. Rig up schlumberger.

21.06.82 Ran logs.
Run no. 1: ISF/SONIC-GR
Run no. 2: LDT, GR, LDT-CNL-GR
Run no. 3: CST
Run no. 4: CBL
Made up 9 5/8" csg. hanger. RIH w/12 1/4" bit to 1178m. Broke circ, slip and cut drill line 35m at 1178m. Cont. RIH to TD. Broke circ. at 1845m. Washed and reamed from 2455-2478m. Circ. bottom up, and ran wiper trip to 1900m.

22.06.82 Circ. cond. mud. POOH, no drag. Retrieved wear bushing. Ran 9 5/8" csg, 31 jts, 47 lb/ft, P110, + 162 jts, 47 lb/ft, N-80.
Rig up surface lines and cmt head and circ. Press testet surface lines to 345 bar. OK.

23.06.82 Bumped plug at 0130 hrs. w/138 bar. Held pressure OK. No flow back. Made up jet tool and washed wellhead and BOP. Made up running tool for 9 5/8" seal assy. Press testet BOP to 345 bar. OK. P/O and laid down 9 5/8" seal assy, running tool and laid down 13 3/8" wear bushing and ran 9 5/8" wear bushing. Made up new BHA w/6½" DC. WOC for 2½ hrs. Testet csg. to 345 bar against shear ram. OK. RIH w/8½" bit. Tag cmt at 2432m. Drilled out hard cement from 2434-2478m.

24.06.82 Drilled cement spots and float from 2434-2435m. 9 5/8" csg shoe at 2463m. Washed from 2463 to 2478m. Drilled 8½" hole fraom 2478-2481m. Circ. bottom up. Rigged up and performed leak off test, eqv. mw: 1,87 S.G. Drilled 8½" hole from 2481-2494m. Displaced hole with new 1,3 S.G mud. Drilled 8½" hole from 2494-2502m. Circ. and dropped survey. POOH and retrieved survey. Made up new 8½" bit junksub and stab. and RIH. Worked junk sub. Drilled 8½" hole from 2502-2505m.

25.06.82 Cont. drilling to 2528m. Flow check at 2504m and at 2506m. OK. Drilled 8½" hole to 2575m. Circ. and dropped survey. POOH and retrieved survey. Recovered 950g junk.

26.06.82 Made up new 8½" bit and RIH, no fill. Worked junk sub, drilled 8½" hole from 2575-2629m. Worked junk sub. Circ. and dropped survey.

27.06.82 POOH. Cleaned junk basket, 300g junk. Made up 8½" bit and RIH. Broke circ. at 2011m due to plug nozz. Drilled 8½" hole from 2629-2632m. Pulled out to shoe due to mud pump failure. Worked on mud pumps for 3 hrs. Pump no 1 rep. OK. RIH to TD and drilled from 2632-2661m.

28.06.82 Cont. drilling to 2674m. Mud pump rep. at 1600 hrs. OK. Drilled to 2679m. Dropped survey and POOH. No drag. Cleaned out junk basket. Made up new 8½" bit, and RIH. Worked junk basket. Drilled 8½" hole from 2679-2709m.

29.06.82 Cont. drilling to 2729m. Increased mw to 1,5 S.G while drilling Cont. drilling to 2759m. Circ. and dropped survey, POOH, Retrieved survey. RIH w/new bit, slip and cut 115' drilling line.

30.06.82 Cont. RIH to 2722m. Washed and reamed from 2722-2759m. No fill. Drilled 8½" hole from 2759-2805m. Circ. bottom up and worked junk basket. Dropped survey and POOH. Retrieved survey. Made up new BHA w/core barrel and ran in hole with core bit.

01.07.82 Circ. at TD 2805m. Dropped ball and cut core no.1 from 2805-2823m. POOH 100% recovery. Retrieved wear bushing and RIH w/test plug. Pressure testet BOP to 345 bar. P/O w/test plugs, ran and set wear bushing. RIH w/core bit. Circ. and dropped ball. Cut core no. 2 from 2823,3 to 2841,6m.

02.07.82 Circ. and POOH. Recovered core no. 2. RIH w/corebarrel no. 3 to TD. Circ. and dropped ball. Cut core no. 3 from 2841,6 to 2859,9m POOH. 100% recovery. RIH w/core barrel to TD. Circ. and dropped ball. Cut core no. 4.

03.07.82 Cont. to cut core no. 4 from 2859,9-2878,2m. Circ. and POOH, 100% recovery. Rigged up Schlumberger. Ran ISF/SONIC, MSFL, GR.
Made up 8½" bit and RIH to 2805m. Washed and reamed from 2805-2878,2m. Drilled 8½" hole from 2878,2-2900m. Circ. and dropped survey. Retrieved survey, had one misrun.

04.07.82 RIH to TD, 3m fill. Drilled ahead to 2935m. Flowcheck due to drilling brake. OK. Drilled 8½" hole from 2935-2992m. Circ. and dropped survey. P/O to csg shoe retrieved survey. RIH to TD, no fill. Drilled 8½" hole from 2992-3050m. Circ. and dropped survey.

05.07.82 POOH for new bit. Retrieved survey no drag RIH. Flushed kill and choke line. Drilled 8½" hole from 3050-3241m. Flow checked at 3133m. OK. Circ. and dropped survey. Retrieved survey and drilled ahead to 3200m. Circ. hole clean.

06.07.82 Dropped survey and POOH.
Rigged up Schlumberger.
Run no. 1: ISF/SONIC/MSFL-GR
Run no. 2: LDT/CNL-GR
Run no. 3: RFT no. 1. Press./sample run
Run no. 4: RFT no. 2. Press./sample run

07.07.82 Cont. logging
Run no. 5: RFT no. 3, sample run
Run no. 6: DLL/MSFL
Rigged down Schlumberger
RIH w/8½" bit. Hole in good cond.
Circ. hole cleam. POOH. No drag. Rigged up Schlumberger.
Run no. 7: H.D.T

08.07.82 Cont. logging

Run no. 8: W.S.T

Run no. 9: CST no. 1 Recovered 9 of 30 cores

Run no. 10: CST no. 2 Recovered 18 of 30 cores

Run no. 11: CST no. 3 Recovered 26 of 30 cores

Run no. 12: CBL/VDL

09.07.82 Rigged down Schlumberger. RIH w/bit to 2440m. Slipped and cut drill line. Cont. RIH to TD. Circ. and cond. mud. Circ. bottom up and POOH to run liner. Rigged up and ran 75 jts, 7", 29 lb/ft on 5" DP to TD 3200m. Picked 7" liner up 1m. Circ. 47,7 m^3 mud. Dropped ball and sat hanger w/117 bar at 3199m. Backed out running tool.

10.07.82 Pressure tested surface lines to 207 bar. OK. Cemented liner POOH. Broke and laid down 38 jts, 5" DP and laid down liner running tool. WOC for 6,5 hrs RIH w/8½" bit and 9 5/8" csg. scraper. Tagged top liner at 2310m. Circ. out to check for cmt. No cmt in return. POOH. Rigged up and attempted to pressure test 7" liner w/overlap against shear ram. Neg. RIH w/open ended 5" DP and 15 std. 3½" DP to 2315m. Pressure tested surface lines to 345 bar OK. Sat a balanced cement plug from 2315-2187m POOH to 2045m. Rev out. No cement in return.

11.07.82 Squeezed 2,03 m^3 cement, max. squeeze pressure was 251,7 bar. WOC. Held pressure constant at 246,9 bar. Bled off pressure and POOH RIH w/8½" bit and tagged top of cement at 2202m. Drilled cement from 2202-2305m. Circ. and pressure tested lines to 345 bar OK. Attempted to test 7" liner overlap, neg. Drilled cement from 2305-2310m. Circ. hole clean POOH. RIH w/openended drillpipe to 2310m. Pressure tested surface lines to 345 bar. OK. Sat a balanced cement plug from 2309-2181m.

12.07.82 PO to 2045 m. Rev. out. Pressure tested surface lines to 345 bar. OK. Attempted to squeeze off liner overlap. Max. pressure 286,2 bar. Pressure held. WOC for 11 hrs w/286,2 bar on surface. Released pressure and POOH. RIH w/8½" bit and 9 5/8" csg. scraper. Tagged top cement at 2212m. Drilled cement from 2212-2310m. Tagged top liner at 2310m. Circ. and pressure tested 7" liner overlap and 9 5/8" csg to 275,6 bar. OK.

13.07.82 Circ. bottom up. POOH. RIH w/6" bit and 7" csg. scraper. Tagged top liner 2310m RIH and tagged landing collar at 3159m. Circ. out. Pressure tested surf. lines, 9 5/8" csg and 7" liner, OK POOH. RIH w/openended DP to 1200m. Tested surface lines to 207 bar. OK. Sat a balanced cmt plug from 1200-1090m PO to 929m and rev. out RIH w/open ended DP and tagged cmt at 1097m. Circ. bottom up due to unbalanced mud.

14.07.82 POOH, sat test plugs. Pulled BOP and prepared to split BOP on cellar deck. Changed rams on BOP from 5" to 3½". Checked all fail safe valves.

15.07.82 Pressure tested BOP on cellar deck, all rams and fail safe valves to 690 bar, OK.
Ran BOP and did a complet pressuretest on BOP. OK. Retrieved test plug and wear bushing. Displaced riser w/mud, ran test plug. Pressure tested BOP. Retrieved test plug and RIH and sat wear bushing. POOH w/running tool.

16.07.82 RIH w/8½" bit. Tagged top of cement at 1107m. Drilled cement from 1107 - 1192 m. Circ bottom up. Cont. RIH, tagged liner. Circ. bottom up, reduced mw from 1,50 - 1,30 s.g. POOH. RIH w/6" bit to 3135. Picking up 3½" Dp. Drilled hard fill from 3135 - 3136 m. Circ. cond. mud, POOH.

17.07.82	Cont. to POOH. Rigged up Schlumberger and ran CBL/VDL-CCL. Rigged down same. P/U and made up Otis SSTT. Made dummy run w/SSTT to w.h. P/U 3½" TDS test tubing, RIH. Pressure tested tubing every 20 std to 520 bar. OK. POOH w/test tubing.
18.07.82	Cont. POOH. Set test tubing back in derrick. Rigged up Schlumberger. RIH w/4" hyper-jet 4 SPF and perforated from 2880 - 2890 m. Rigged down Schlumberger. All shots fired. P/U test string BHA, and rigged up for DST no. 1. Discovered bubbles in riser. Observed well, no pit gain. Bubbles disapp. and well stable. P/U test string BHA for DST no. 1. Pressure tested BHA + 1 stand 3½" TDS tubing to 520 bar 110 min, OK. RIH w/test string. Pressure tested against DP tester valve at 40 std and 89 std to 415 bar/10 min. OK. Ran SSTT, lubricator and STT. Rigged up surf. equipment, pressure tested. Set packer at 2850 m. DST no. 1.
19.07.82	Initial shut in DST no. 1. Opened LPR-valve for second flow period. Multirate flow. Closed well in simultaneously at surface and downhole by closing Otis chocke manifold and LPR-valve.
20.07.82	Well on final shut in. Due to leaking LPR-valve, pressured up on annulus to 207 bar and sheared APR-M valve. Bleed off tubing pressure through Otis choke. Filled annulus w/1,3 mud. Flushed flowlines to burner.
21.07.82	Rev. circ. through rig chockemanifold. Well on final shut in w/downhole shut in. Rigged down Otis choke manifold and flowline. Well on final shut in.

Unseated RTTS packer, observed well, OK. Attempted to bull heading down annulus. No good. Opened MPR observed well 10/min. OK. L/D STT, lubricator, SSTT. RIH w/3½" DP w/packer at 2875m. Circ. riser volume, observed well. OK. POOH w/test string RIH w/6" bit and 7" scraper. Worked scraper/circ. at perf.

22.07.82 Circ. w/bit at 2920 m. POOH. Rigged up Schlumberger. Run no. 1: Gauge ring junkbasket to 2875 m. Did injection test against shear ram. Run no. 1: Set 7" EZSV retainer at 2875 m. Rigged down Schlumberger. RIH w/stinger. Circ. bottom up. Pressure tested surface lines to 275 bar. OK. Stung into retainer and established injection rate. Pulled out of stinger and set a 25 m cement plug on top of retainer. P.O. to 2843 m. Rev. out POOH L/D stinger. Retrieved wear bushing and set test plug.

23.07.82 Pressure tested BOP and retrieved test plug. Ran wear bushing. RIH w/6" bit, 7" csg scraper. Tagged cement at 2844 m. Drilled firm cement from 2844 - 2857 m. POOH. Rigged up Schlumberger.
Run no. 1: Perf. from 2840-2850 m.
Run no. 2: Perf. from 2830-2840 m
Rigged down Schlumberger. L/D 3 jts TDS tubing.
RIH w/test string for DST no. 2.

24.07.82 Ran sub sea test tree, lubricator valve and made up surface test tree. Pressure testing. Set packer at 2796 m. Landed string i wellhead. Pressured up annulus to 103 bar LPR opened at 69 bar. Opened well for flow.

25.07.82 Well flowing through adjustable choke.
Final shut in.

26.07.82 DST no. 2. Final shut in period to 12.22 hrs. Attempted to bleed off tubing pressure through Otis choke. No success. Attempted to close LPR valve w/151 bar on annulus and then bleed off annulus pressure. No success. LPR valve leaking. Bleed off tubing pressure through Otis choke manifold and burner. Flushed surface lines w/water. Rev. circ. Unseated packer. Bullheaded and formation broke down 231 bar.

27.07.82 Pumped 159 l/min Overdispl. perf. w/2,38 m^3 mud. Circ. Rigged down surface equipment and laid down STT, lubricator and SSTT. RIH w/packer at 2823 m. Circ. Flow check. POOH w/packer to 2300 m. Flowcheck. Cont. POOH w/testing. Broke and laid down Halliburton tools.
RIH w/6" bit and 7" scraper. Tag cement at 2857 m. No fill. Circ. bottom up to wellhead. POOH. Rigged up Schlumberger.
Run no. 1: Junk basket and gauge ring.
Run no. 2: Set 7" retainer at 2822 m.

28.07.82 RIH w/stinger. Broke circ. pressure testet surface lines to 324 bar. OK. Squeezed and laid 20 m cement plug on top of retainer. Pulled out 2 stds. Rev. circ. POOH w/stinger. RIH w/3½" openended drillpipe to 2360 m. Rig up and pressure testet surface lines to 275 bar. OK. Set cement plug from 2360-2235 m. P.O. to 2188 m, rev. circ. Cont. POOH. Made up 8½" bit on 4 3/4" BHA and RIH w/3½" tubing. Tag cement at 2247 m.

29.07.82 POOH. Pressure tested 9 5/8" csg and cmt plug to 200 bar. OK.
Rig up Schlumberger and perf. 9 5/8" csg at 121 m. Flow check. OK. Rigged down Schlumberger. Retrieved wear bushing. RIH w/9 5/8" csg cutter assy. Cut csg at 506 m. POOH. retrieved 9 5/8" csg. Pressure tested overlap 13 3/8" - 9 5/8" to 46 bar while POOH. OK. RIH w/5" openended drillpipe to 555 m. Rig up surface lines and pressure tested same. Set cement plug from 555-455 m. POOH to 420 m.

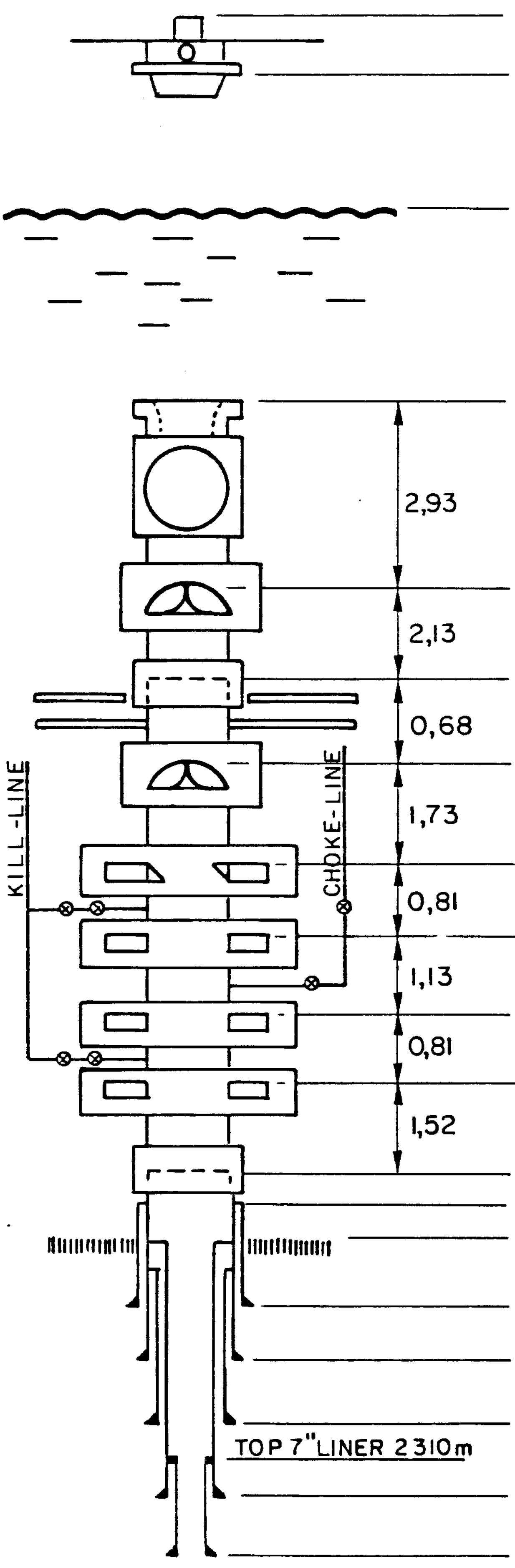
30.07.82 Made up 12 1/4" bit and 13 3/8" scraper. RIH to 400 m. Worked scraper and POOH. Perf. 13 3/8" csg at 397 m. Ran retainer, set at 385 m. Made up stinger and RIH. Laid 25 m cement on top of retainer. POOH to 335 m. RIH to wellhead and perf. at 126 m. Flow check ok. Made up 13 3/8" csg cutter assy and RIH. Cut csg at 180 m. POOH. Tried to pull. No success. Cut 13 3/8" csg at 153 m. Tried to pull. No success.

31.07.82 Cut 13 3/8"csg at 119,5 m. POOH. RIH w/open ended drillpipe to 330 m. Circ bottom up. Set cement plug from 330-120 m. POOH to 116,5 m. Rev. out. No cement in return. Prep. to pull BOP. Disconnected diverter system. Unlatched wellhead and pulled BOP. Made up 12 1/4" bit and RIH. Tag cement at 118 m. POOH. Cut 20" and 30" csg at 115 m. POOH. Made up running tool on 20" well head and retrieved base plate.

01.08.82 Divers inspected seabed, OK. Anchor handling. Under tow to Sandefjord.

III 4 WELL AND SUBSEA SCHEMATIC

ROSS RIG SUBSEA ASSEMBLY — WELL 15/9-15



M.	
0	RKB
3,81	DIVERTER RISER CONNECTOR FLANGE
25	SEA LEVEL MEAN
94,76	JOINT RISER CONNECTOR FLANGE
97,69	UPPER ANNULAR RUBBER TOP (CLOSED)
99,82	LOWER STACK ASSEMBLY TOP
100,50	LOWER ANNULAR RUBBER TOP (CLOSED)
102,23	SHEAR RAMS TOP
103,04	U.P. RAMS TOP
104,17	M.P. RAMS TOP
104,98	L.P. RAMS TOP
106,50	18 3/4 WELLHEAD TOP
106,80	30" HOUSING TOP
108,00	MUD LINE
171,50	30" SHOE
498,0	20" SHOE
1178,0	13 3/8" SHOE
2463,0	9 5/8" SHOE
3199,0	7" SHOE

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Original av: TAN
Tegnet av: AM
Dato: 3-11-80

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III 4 WELLBORE SCHEMATIC 15/9-15

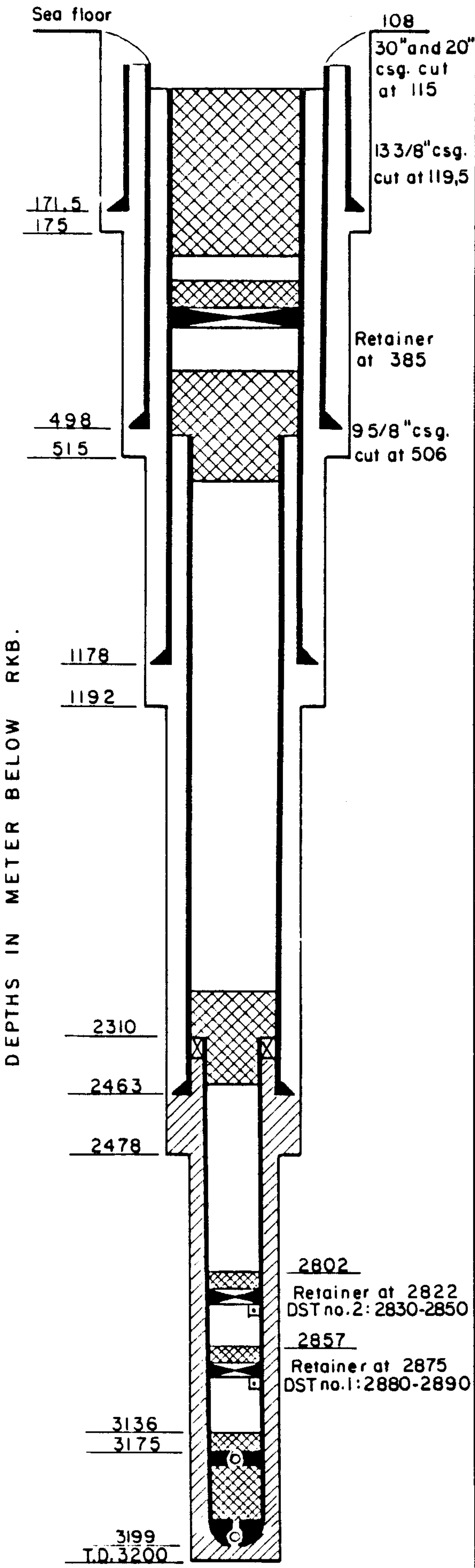
(NOT TO SCALE)

ORIGINAL AV: TAN
TEGNET AV: AM
DATO: 15-12-82

RKB - MSL : 25 m.

WATER DEPTH: 83 m.

Hole	Casing
36"	30" GRADE B VETCO ATD/RB 5 JTS.
26"	20" X-56 VETCO LS 94 lbs/ft 32 JTS.
17 1/2"	13 3/8" K-55 BUTTRESS 68 lbs/ft 85 JTS.
12 1/4"	9 5/8" N-80 BUTTRESS 47 lbs/ft 162 JTS. ON TOP AND P-110 BUTTRESS 47 lbs/ft 31 JTS ON BOTTOM
8 1/2"	7" N-80 BUTTRESS 29 lbs/ft 75 JTS.



Casing cement	Plugs/Squeeze
Lead: sp.gr. 1.56 18 mt. class G cmt w/3.55 L/100 kg D-75 and 92.65 L/100 kg s.w. Tail: sp. gr. 1.90 13.2 mt class G cmt w/1% BWOC and 44.4 L/100 kg seawater	CMT plug (330-118m)
Lead: sp.gr. 1.56 75.1 mt class G cmt w/3.55 L/100 kg D-75 and 92.65 L/100 kg S.W. Tail: sp.gr. 1.91 13.2 class G cmt w/44 L/100 kg S.W.	CMT plug 385 - 360 CMT plug 555 - 455
Lead : sp.gr. 1.56 45.3 mt class G cmt w/3.55 L/100 kg D-75 and 1.33 L/100 kg D-80 and 0.13 L/100 kg D-81 and 91.83 L/100 kg S.W. Tail: sp.gr. 1.91 13.3 mt class G cmt w/1.33 L/100 kg D-80 and 42.26 L/100 kg fresh water	
Lead: sp.gr. 1,50 29.9 mt class G cmt w/16% bentonite and 0.89 L/100 kg D-80 and 1.43 L/100 kg D-81 and 117.53 L/100 kg fresh water Tail: sp.gr. 1.90 23.5 mt class G cmt w/0.89 L/100 kg D-80 and 1.78 L/100 kg D-73 and 0.71 L/100 kg D-81 and 41.6 L/100 kg fresh water Pumped 3.2 m^3 spacer 3000 ahead of cement slurry	CMT plug 2360 - 2247 Squeezed 7" liner top twice w/2x6.4 mt cement
Slurry: sp.gr. 1.90 29.9 mt class G cmt w/1.78 L/100 kg D-73 and 1.78 L/100 kg D-80 and 0.62 L/100 kg D-81 and 40.82 L/100 kg fresh water Pumped 3.2 m^3 spacer 3000 ahead of slurry	Squeezed off test zone no 2 w/6.4 mt cmt Squeezed off test zone no 1 w/6.4 mt cmt

III 5 FORMATION INTERGRITY TESTS

N O M E N C L A T U R E

Brønn no	= Well no
Dybde	= Depth, m
Foring	= Casing
Fartøy	= Rig name
Høyde	= Hight, m
Over vannfl.	= Above sea level
Over sjøb.	= Above sea floor
Tyngde	= Weight
Maks. trykk	= Max pressure
Boreslam	= Mud
Tetthet	= Density, S. G.
Vis	= Funnel Viscosity, sec/qt.
P. V.	= Plastic Viscosity, cps.
Y. P.	= Yield Point, lbs/100 sq.ft.
Filt	= Filtrate, cc's/30 min.
Gel	= Gel, lbs/100 sq.ft.
Kapasitet	= Capacity
Vol/tidsenhet	= Liters/min.
Tilb.str.	= Returns, liters
Antatt styrke	= Predicted formation strength, S. G.
Obs.spr.trykk	= Surface pressure at leak off, bar
Ekv.formasj.styrke	= Formation integrity (Leak off) S. G.
Volum	= Volume, liters
Trykk	= Pressure, bar
Anmerkninger	= Comments

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FORMASJONSSTYRKETEST

Dato: 06.06.82

Brønn nr.: 15/9-15 **Dybde:** Brønn: 518 Foring: 498 Test: No.1

Fartøy: Ross Rig **Høyde R.K.B.:** Over vannfl.: 25 Over sjøb.: 108

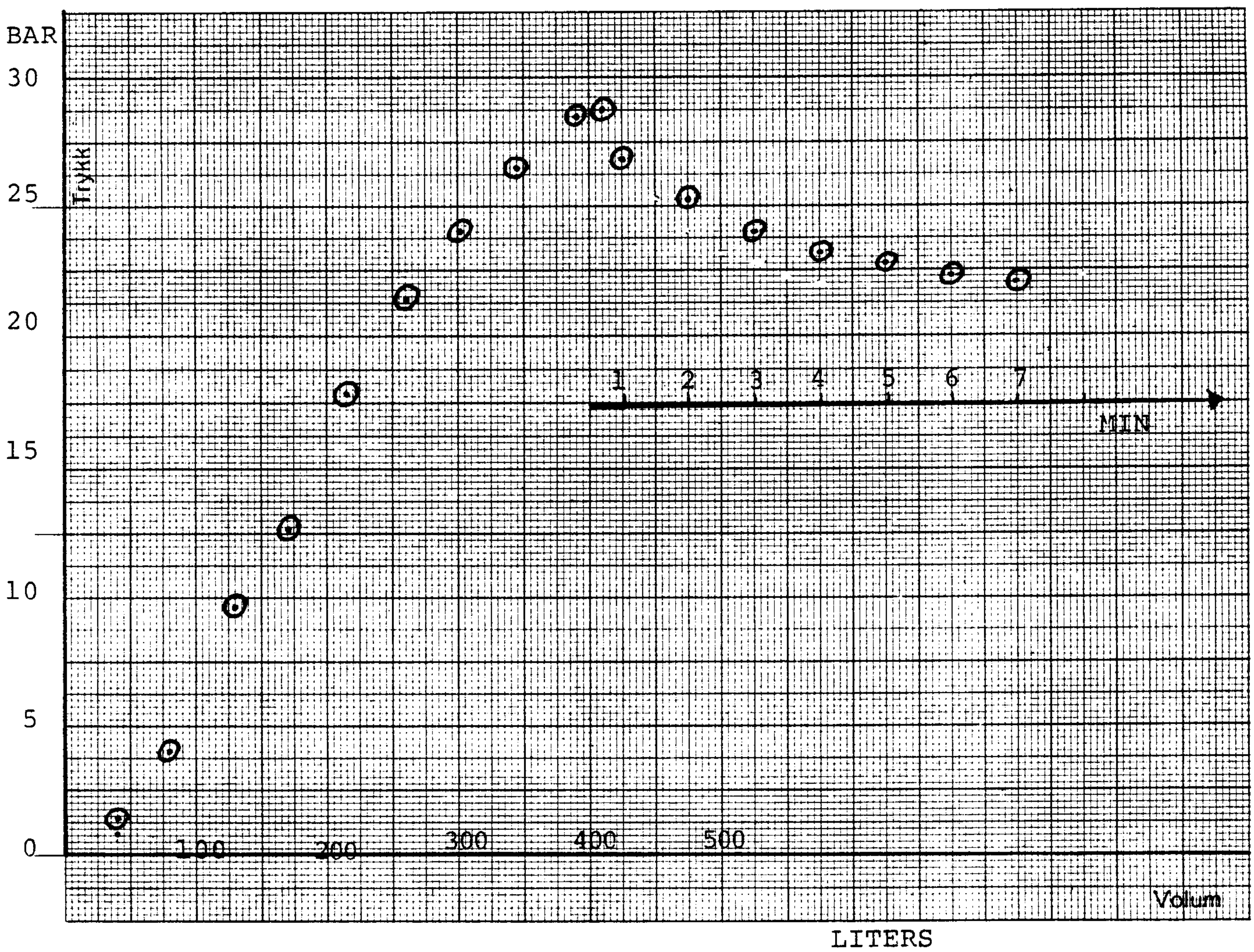
Foring: Diam.: 20" Tyngde: 94lb/ft Grad: X-56 Maks. trykk: 152

Boreslam: Tetthet: 1.09 Vis: 40 P.V.: 7 Y.P.: 16 Filt: 36 Gel.: 4/19

Pumpe: Type: Dowell Kapasitet: 4.31 l/slag Vol./tidsenh.: 40LPM Tilb.str.: 150L

Antatt styrke: 1.47 Obs. spr. trykk: 27.6 Ekv. formasj. styrke: 1.65

Volum/~~tid~~	Trykk	Volum/~~tid~~	Trykk	~~Volum~~/tid	Trykk	Anmerkninger
LITER	BAR	LITER	BAR	MIN	BAR	
43	1.37	345	26.55	1	26.9	
86	4.03	388	28.62	2	25.2	
129	9.65	409	28.79	3	24.0	
172	12.62			4	23.1	
215	17.92			5	22.6	
259	21.38			6	22.3	Sign.:
301	24.13			7	22.0	



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FORMASJONSSTYRKETEST

Dato: 10.06.82

Brønn nr.: 15/9-15 **Dybde:** Brønn: 1194 m Foring: 1178 m Test: No. 2

Fartøy: Ross Rig **Høyde R.K.B.:** Over vannfl.: 25 m Over sjøb.: 108 m

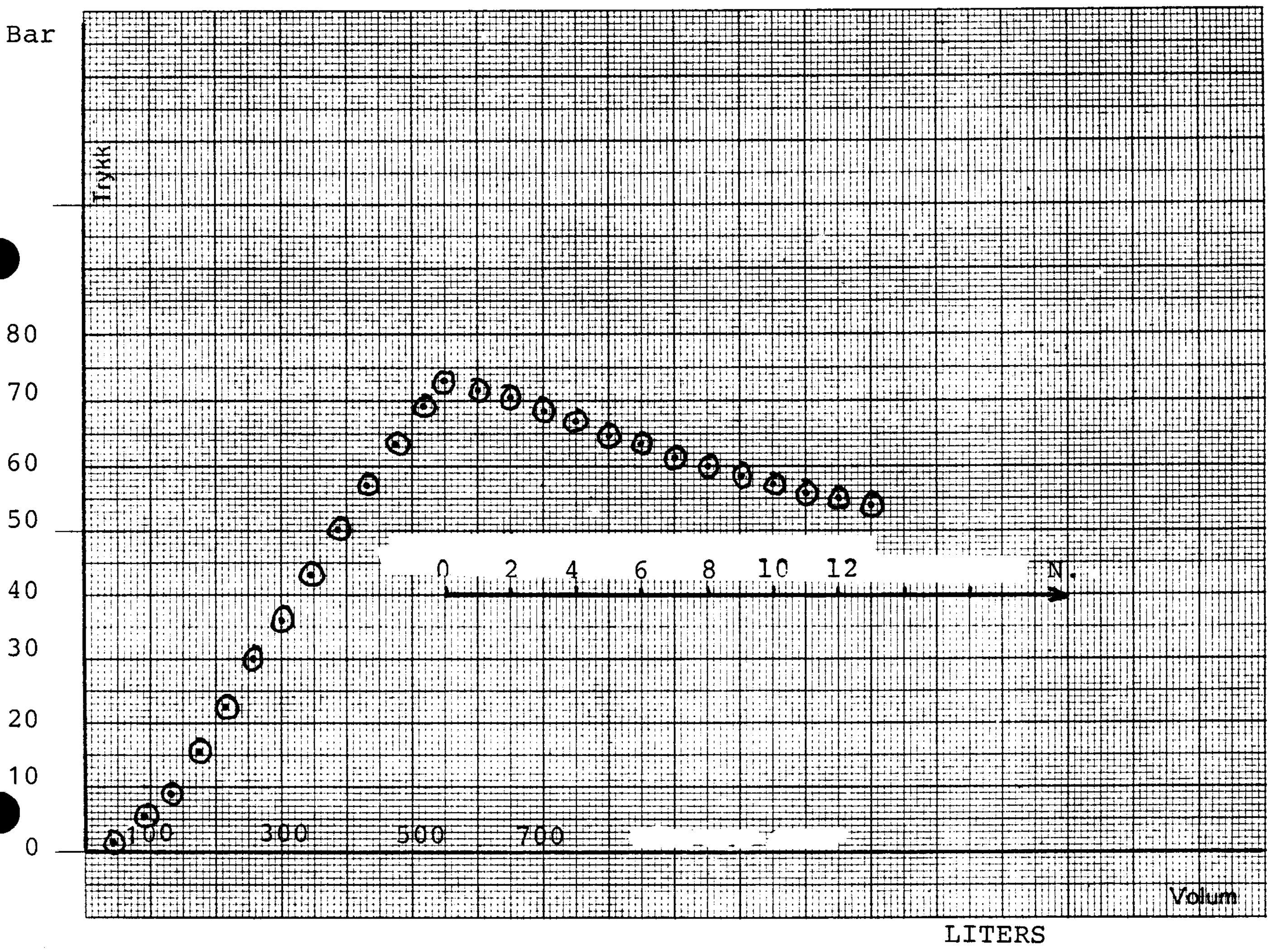
Foring: Diam.: 13 3/8 Tyngde: 68 LBS/FT Grad: K-55 Maks. trykk: 238 Bars

Boreslam: Tetthet: 1.14 Vis: 40 P.V.: 6 Y.P.: 12 Filt: 19 Gel.: 3/15

Pumpe: Type: Dowell Kapasitet: 4,31 L/STRK Vol./tidsenh.: 39 L/Min. Tilb.str.: 270 L

Antatt styrke: 1.66 Obs. spr. trykk: 62,1 BARS Ekv. formasj. styrke: 1,68 G/CC

Volum	Trykk	Volum	Trykk	Tid	Trykk	Tid	Trykk
43,1L	1,7	387,9L	50,0	1 min.	71,7	9 min.	58,6
86,2L	5,2	431,0L	56,9	2 min.	70,3	10 min.	57,2
129,3L	8,6	474,1L	63,4	3 min.	68,3	11 min.	55,9
172,4L	15,5	517,2L	69,0	4 min.	66,9	12 min.	55,2
215,5L	22,4	547,4L	73,1	5 min.	64,8	13 min.	53,8
258,6L	29,7			6 min.	63,4		
301,7L	35,9			7 min.	61,4	Sign.:	
344,8L	43,1			8 min.	60,0		



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FORMASJONSSTYRKETEST

Dato: 24.06.82

Brønn nr.: 15/9-15 **Dybde:** Brønn: 2481 Foring: 2463 Test: No. 3

Fartøy: Ross Rig **Høyde R.K.B.:** Over vannfl.: 25 Over sjøb.: 108

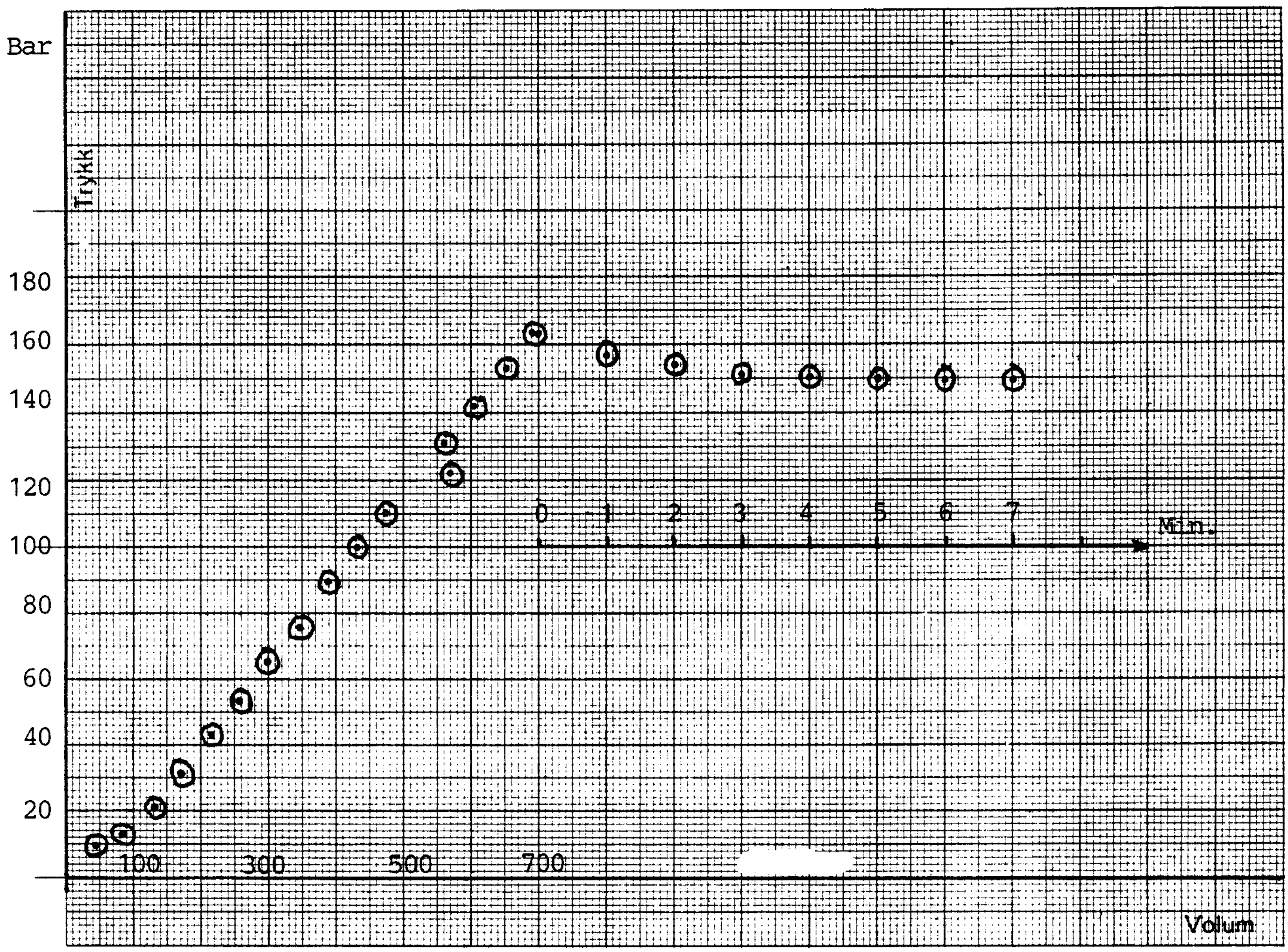
Foring: Diam.: 9 5/8" Tyngde: 47 LBS/FT Grad: N-80 Maks. trykk: 474 Bars

Boreslam: Tetthet: 1,22 Vis: 45 P.V.: 9 Y.P.: 9 Filt: 5,8 Gel.: 4/18

Pumpe: Type: Dowell Kapasitet: 4,31 L/STR Vol./tidsenh.: 39 L/MIN. Tilb.str.: 531 LTR.

Antatt styrke: 1,78 G/CC Obs. spr. trykk: 162 BAR Ekv. formasj. styrke: 1.87 g/cc

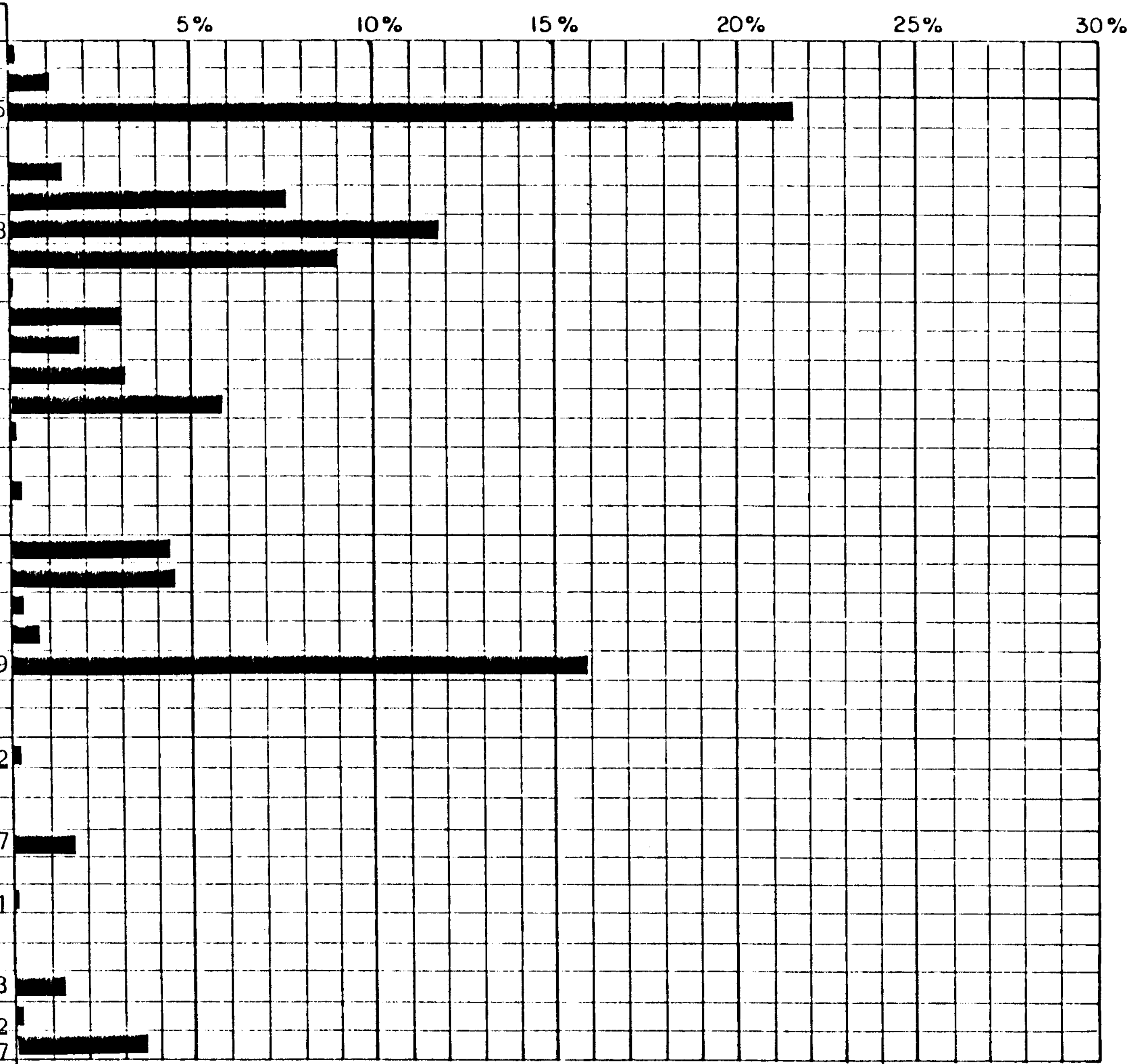
Volum	Trykk	Volum	Trykk	Tid	Trykk	Anmerkninger
43,1	9,7	387,9	89,7	1	157,2	
86,2	13,8	431,0	100,0	2	154,5	
129,3	20,7	474,1	110,3	3	151,7	
172,4	31,0	571,2	122,1	4	150,3	
215,5	43,5	560,3	131,7	5	149,7	
258,6	53,1	603,4	142,1	6	149,3	
301,7	65,5	646,5	153,1	7	149,3	Sign.:
344,8	75,9	689,6	163,5			



III 6 RIG TIME DISTRIBUTION

RIG TIME DISTRIBUTION FOR WELL 15/9-15

		HRS	%
	Moving	3.25	0.2
	Mooring	17.5	1.1
Drilling operation	Efficient drilling	334	21.6
	Other drilling		
	Hole opening	22	1.4
	Regular tripping	118	7.6
	Casing and cementing	183.5	11.8
	Sub sea eq. and BOP	140	9.0
	Abnormal press. detection	2	0.1
	Cond. and circ.	47	3.0
	Reaming	27.5	1.8
	Directional survey	47.5	3.1
	Plugging	90	5.8
	Formation leak-off test	2.5	0.2
	Maintenance		
	Other	4.0	0.3
Formation Evaluation	Coring	69	4.4
	El. logging	69.5	4.5
	Circ. for samples	5.0	0.3
	RFT	11.5	0.7
	Production testing	245.5	15.9
	Other		
Downtime	Rig repairs	3	0.2
	Rig moving		
	Waiting on weather		
	Sub sea eq. and BOP	24	1.7
	Fishing		
	Lost circulation	2	0.1
	Well control		
	Hole problems		
	Formation evaluation	19	1.3
	Diving	2.5	0.2
	Other	58	3.7
	TOTAL	1 547.75	100



WELL 15/9-15

Drilling time vs. depth.

Rig: Ross Rig

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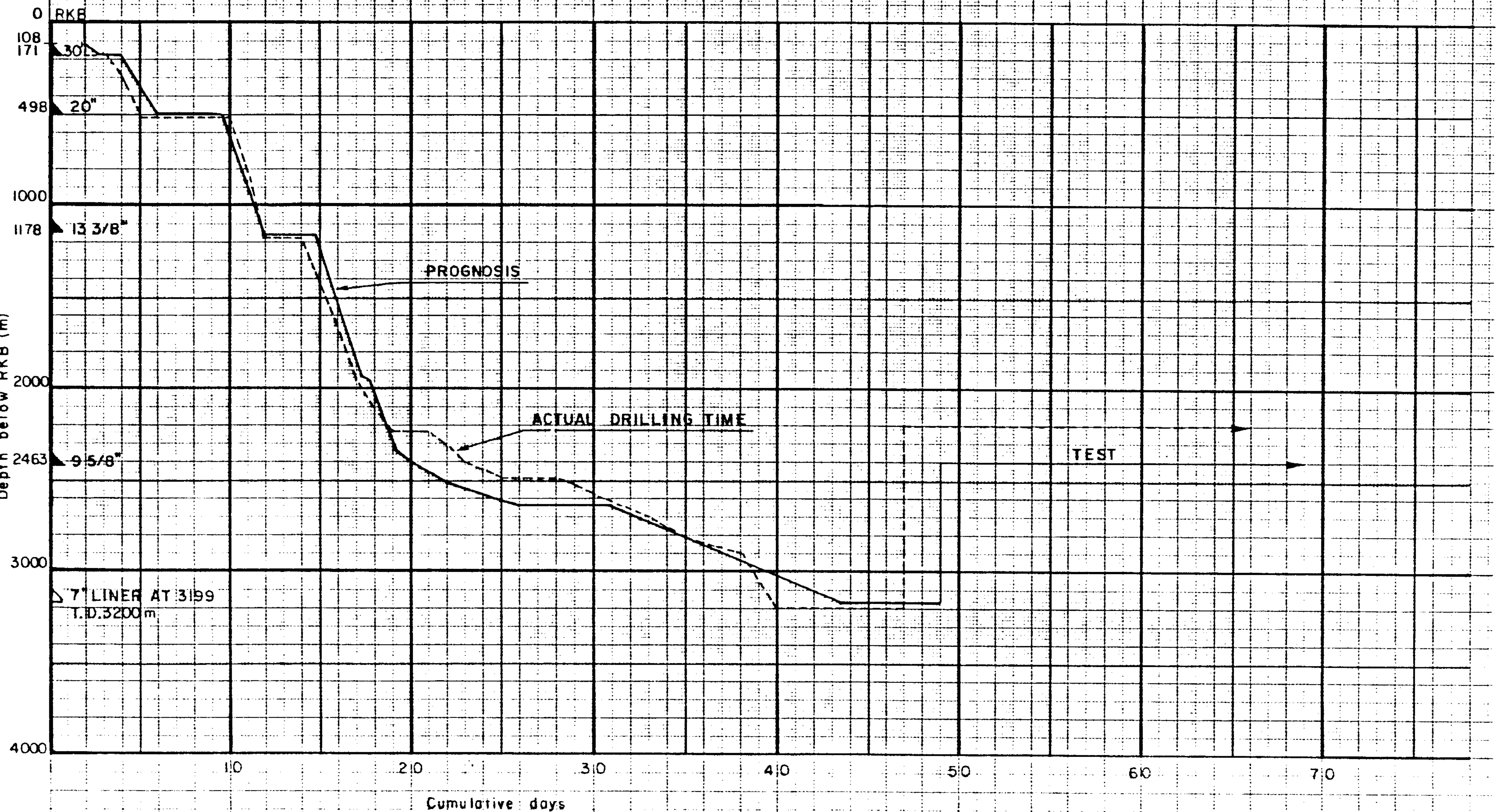
Den norske stats oljeselskap a.s

Original av: TAN
Tegnet av: AM
Dato: 20-4-82
og: 13-9-82



B-2-3-24

WELL 15/9-15

Drilling cost v.s. depth.

Rig: ROSS RIG

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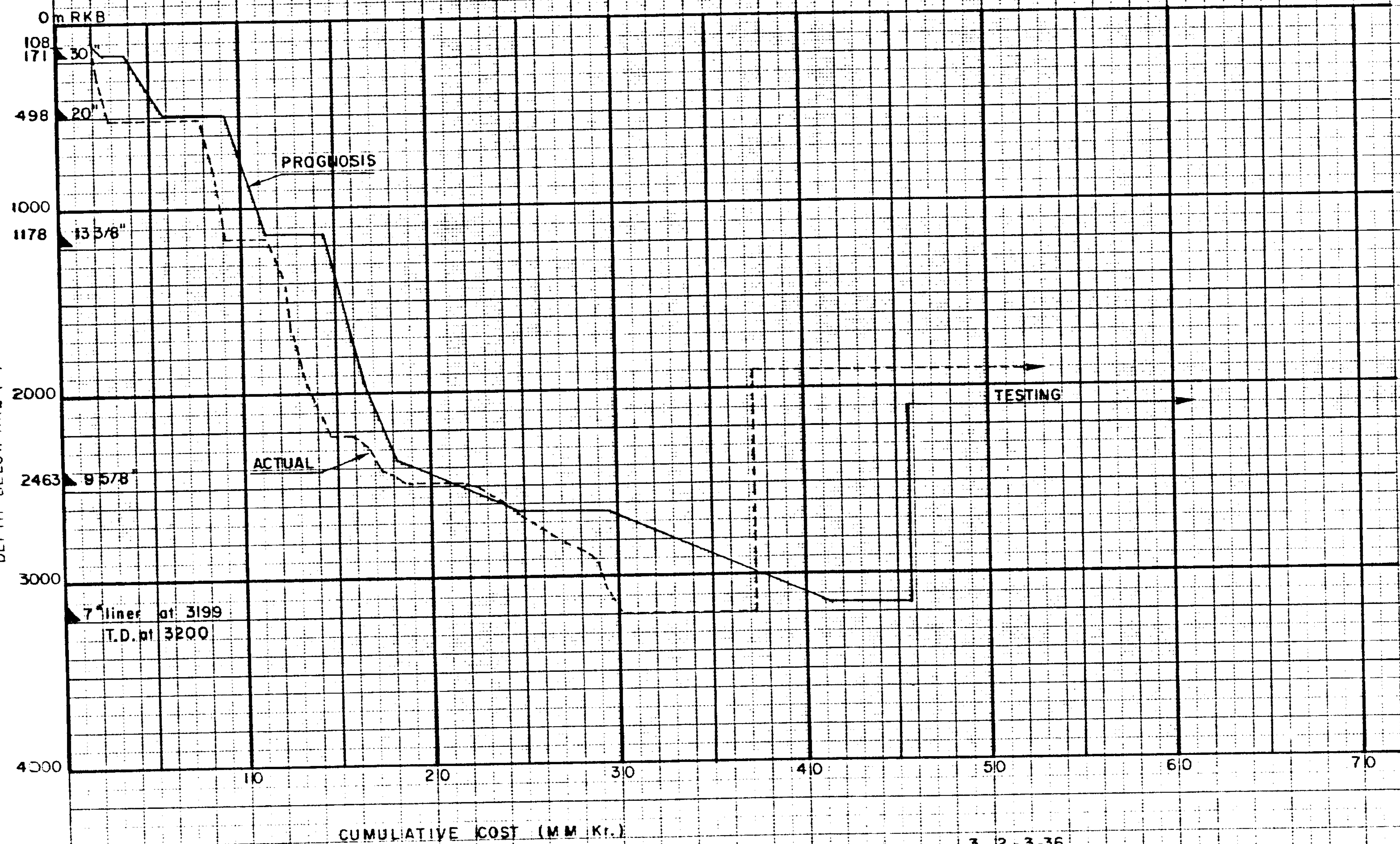
Den norske stats oljeselskap a.s

ORIGINAL AV: TAN
TEGNET AV: AM
DATO: 1-6-82
og 11-1-83



3-2-3-36

III 7 BIT RECORD AND LITHOLOGY COLUMN

![statoil logo]

BORKRONEDATA

Brønn nr.: 15/9-15

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 Trykk	Pumpe V.grad	Pumpe v/t	Tilstand T	Tilstand B	Tilstand G	Anmerkninger
1		26" + 36"H.O.	Hughes	OSC3AJ		3x24	171	63	8.0	8.0	7.9	2.9	60	60	0.97	3645	1	1	I	
2		26"H.O.	"	OSC1GJ		3x24	174	3	1.0	9.0	3.0	–	–	60	"	"	3	3	I	
3		12 1/4"	"	X3A		3x16	515	341	13.1	22.1	26.0	2.2	100	168	"	3405	2	2	I	
3RR		12 1/4" 17.5"HO 26" UR	"	"		"	405	231	10.1	32.2	22.9	2.1	107	62	"	3636	2	2	I	
3RR		" "	"	"		3x13	515	110	4.3	36.5	25.6	2.7	119	62	"	"	2	3	I	
4		17.5"	"	OTC3AJ		3x18	1192	677	27.5	62.1	24.6	5.0	114	168	"	3385	3	3	I	
5		12 1/4"	"	J3		3x15	1946	754	38.2	96.9	19.7	8.3	118	205	"	2800	3	3	I	31m cmt
6		"	"	X1G		"	2228	282	16.4	113.3	17.2	8.7	122	210	"	2860	4	3	I	39m cmt
7		"	"	X3		"	2422	194	30.0	143.3	6.5	9.3	122	160	"	2400	4	3	I	
8		"	"	XDV		"	2478	56	18.2	161.5	3.1	13.2	111	172	"	2544	5	3	I	
9		8.5"	"	XDG		3x11	2502	24	12.6	174.1	1.9	9.2	82	186	"	1562	5	3	I	46m cmt
10		"	"	"		"	2575	73	19.9	194.0	3.7	15.1	99	202	"	1603	6	8	1/16"	
11		"	"	"		"	2629	54	18.1	212.1	3.0	14.9	99	208	"	1562	6	4	I	
12		"	"	J4		"	2679	50	18.9	231.0	2.6	15.2	96	207	"	1542	4	4	I	
13		"	Smith	SDGH		"	2759	80	24.6	255.6	3.2	15.4	105	208	"	1462	5	8	1/8"	
14		"	Hughes	J3		"	2805	46	10.6	266.2	4.3	13.5	81	172	"	1302	3	4	I	
15		8 15/32"	Chr.	C22N		"	2823	18	5.5	271.7	3.3	9.6	85	86	"	1042	–	–	–	
15RR		"	"	"		"	2841	18	5.4	277.1	3.3	9.0	80	68	"	962	–	–	–	
15RR		"	"	"		"	2859	18	6.2	283.3	2.9	12.1	90	86	"	1042	–	–	–	
15RR		"	"	"		"	2878	18	6.7	290.0	2.7	14.3	94	86	"	1042	–	–	–	

statoil

BORKRONEDATA

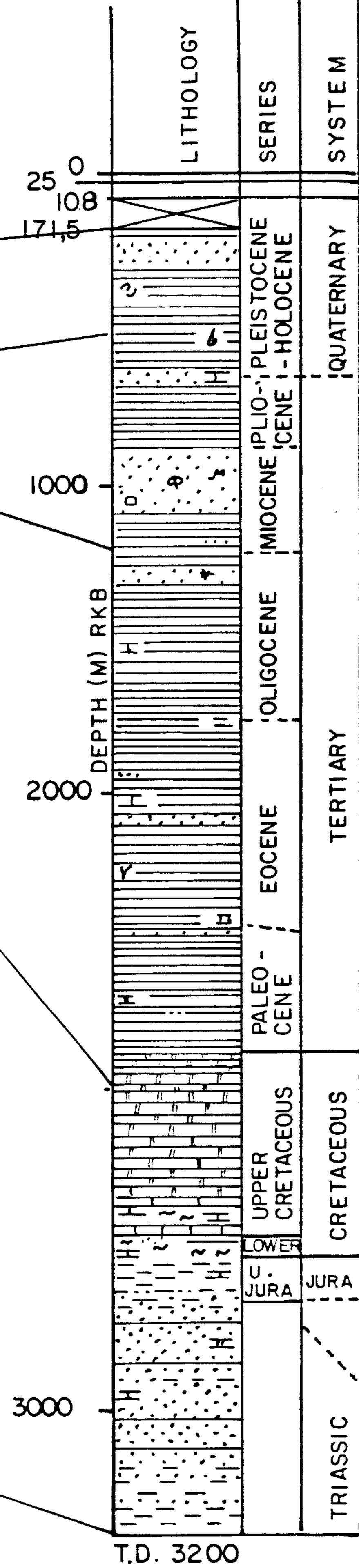
Brønn nr.: 15/9-15

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	
16		8.5	Sec.	S44F		3x11	3050	172	20.2	310.2	8.5	11.4	96	203	0.97	1382	8	8	I	
17		"	Hughes	J4		"	3200	150	11.4	321.6	13.1	13.6	97	202		1422	4	4	I	
17RR		"	"	"		3x14														Circulating
17RR		"	"	"		"				Pluss 9 5/8" csg. scraper							4	4	I	
18		"	"	X16		"				Drilled cmt. plug										
18RR		"	"	"		"				Drilled cmt. plug							2	2	I	
19		6.5	"	OW-V		–				Drilled cmt.										
19RR		"	"	"		–											1	1	I	Circulating

BIT SEQUENCE AND LITHOLOGY COLUMN.

WELL : 15/9-15

BIT NO.	TYPE	DEPTH out(m)	POP m/hr	HRS	HOLE SIZE
1	OSC 3AJ	171	7,9	8,0	36"
2	X3A	515	26,0	13,1	1) 12 1/4"
3	12 1/4" bit, 17 1/2" H.O and 26" U.R				
4	OTC3AJ	1192	24,6	27,5	17 1/2"
5	J 3	1946	19,7	38,2	12 1/4"
6	X1G	2228	17,2	16,4	"
7	X 3	2922	6,5	30,0	"
8	XDV	2478	3,1	18,2	"
9	XDG	2502	1,9	12,6	8 1/2"
10	XDG	2575	3,7	19,9	"
11	XDG	2629	3,0	18,1	"
12	J 4	2679	2,6	18,9	"
13	SDGH	2759	3,2	24,6	"
14	J 3	2805	4,3	10,6	"
15	C 22N	2823	3,3	5,5	"
16	C22N	2841	3,3	5,4	"
17	C22N	2859	2,9	6,2	"
18	C22N	2878	2,7	6,7	"
19	S44F	3050	8,5	20,2	"
20	J 4	3200	13,1	11,4	"



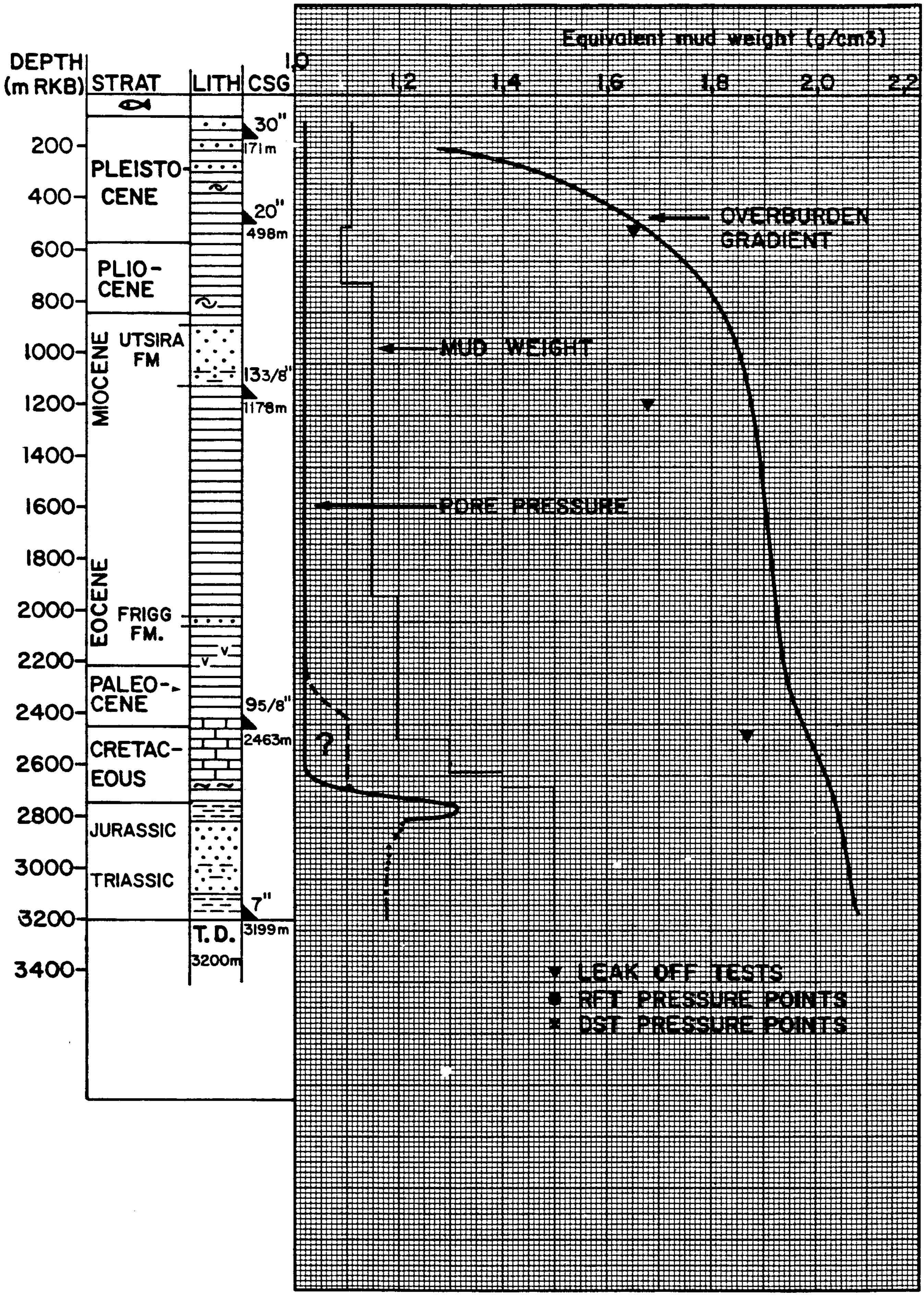
1) 12 1/4" PILOT HOLE

statoil Den norske stats oljeselskap a.s

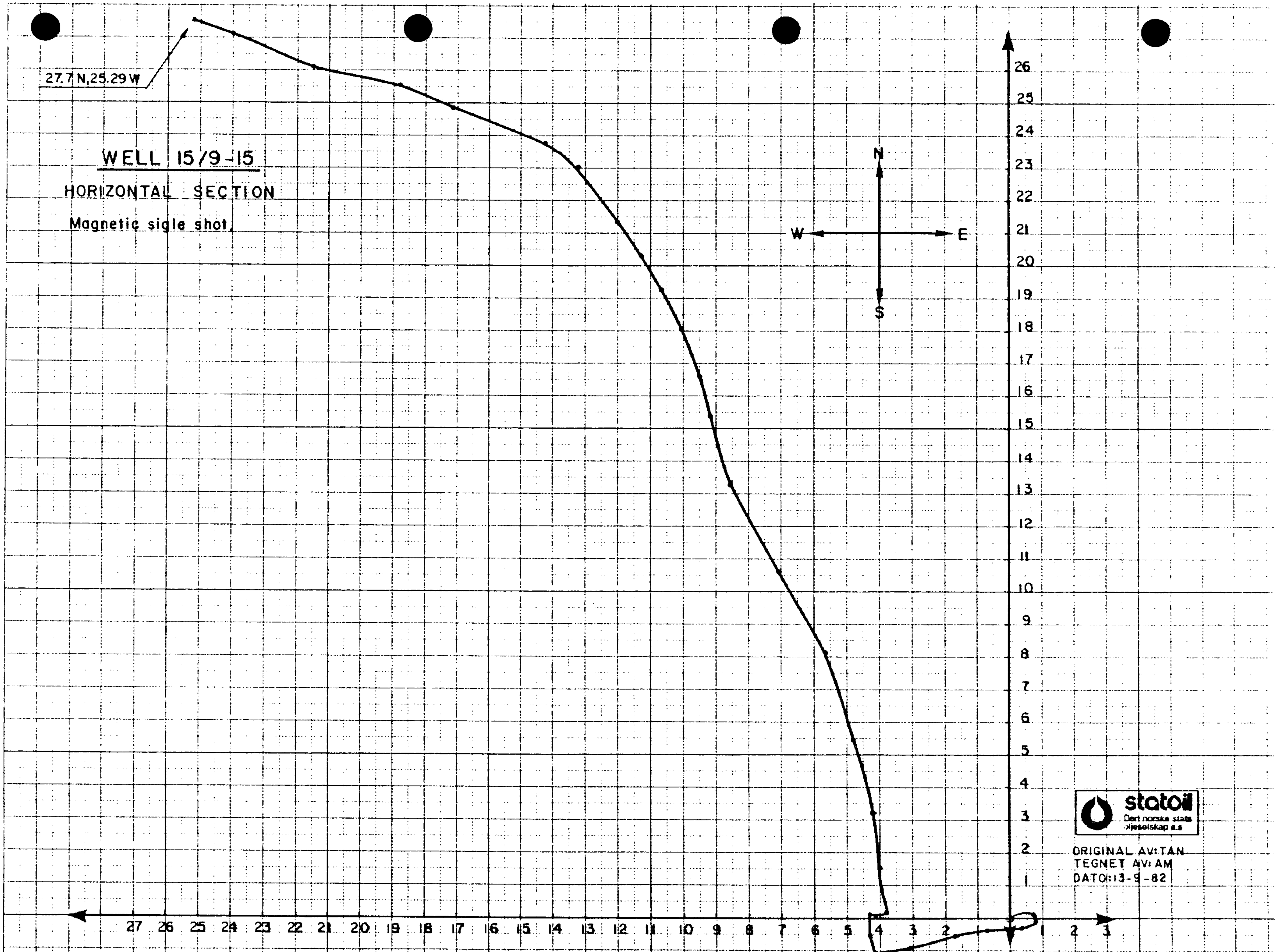
ORIGINAL: TAN
TEGNET: AM
DATO: 17-1-83

III 8 PRESSURE PROFILES

15/9-15 PRESSURE COMPOSITE PLOT



III 9 SURVEYS



27.7 N, 25.29 W
WELL 15/9-15
HORIZONTAL SECTION
Magnetic sigle shot.
N
S
W
E
statoil
Den norske stats oljeselskap a.s
ORIGINAL AV: TAN
TEGNET AV: AM
DATO: 13-9-82

EASTMAN WHIPSTOCK UK. LTD.

WELL DEFLECTION SURVEY

for

STATOIL

15-9-15

Slot :
Well :15-9-15

Survey Reference : S04270.0ST

Measured Depth	Drift Angle	Drift Direction	Course Length	Vertical Depth	Vertical Section	RECTANGULAR COORDINATES		Dogleg Severity
171.40	0 0	N 0 0 E	0.00	171.40	0.00	0.00 N	0.00 E	0.00
509.00	0 15	N 85 0 E	337.60	509.00	0.06	0.06 N	0.73 E	0.02
611.00	0 15	S 28 0 W	102.00	611.00	-0.11	0.11 S	0.85 E	0.13
706.00	0 30	S 89 0 W	95.00	706.00	-0.30	0.30 S	0.34 E	0.14
800.00	0 45	S 78 0 W	94.00	799.99	-0.44	0.44 S	0.67 W	0.09
894.00	0 30	S 86 0 W	94.00	893.98	-0.59	0.59 S	1.68 W	0.08
1002.00	1 0	S 72 0 W	108.00	1001.98	-0.92	0.92 S	3.05 W	0.15
1096.00	0 15	N 84 0 W	94.00	1095.97	-1.15	1.15 S	4.03 W	0.25
1186.00	0 45	N 1 0 E	90.00	1185.97	-0.54	0.54 S	4.22 W	0.26
1278.00	0 0	N 1 0 E	92.00	1277.96	0.06	0.06 N	4.21 W	0.24
1373.00	0 15	S 78 0 E	95.00	1372.96	0.02	0.02 N	4.01 W	0.08
1466.00	0 15	N 4 0 E	93.00	1465.96	0.18	0.18 N	3.79 W	0.12
1560.00	0 15	N 41 0 W	94.00	1559.96	0.54	0.54 N	3.91 W	0.06
1654.00	1 0	N 4 0 E	94.00	1653.96	1.51	1.51 N	3.99 W	0.27
1748.00	1 6	N 17 0 W	94.00	1747.94	3.19	3.19 N	4.20 W	0.13
1842.00	1 45	N 14 0 W	94.00	1841.91	5.45	5.45 N	4.81 W	0.21
1940.00	1 30	N 21 0 W	98.00	1939.87	8.10	8.10 N	5.63 W	0.10
2043.00	1 45	N 37 0 W	103.00	2042.83	10.61	10.61 N	7.06 W	0.15
2137.00	2 0	N 23 0 W	94.00	2136.78	13.27	13.27 N	8.56 W	0.17
2222.00	1 0	N 4 0 W	85.00	2221.75	15.37	15.37 N	9.20 W	0.39
2297.00	1 0	N 22 0 W	75.00	2296.74	16.63	16.63 N	9.49 W	0.12
2404.00	0 45	N 24 0 W	107.00	2403.73	18.14	18.14 N	10.12 W	0.07
2472.00	0 15	N 18 0 W	68.00	2471.72	18.69	18.69 N	10.35 W	0.22
2498.00	0 0	N 18 0 W	26.00	2497.72	18.74	18.74 N	10.37 W	0.29
2569.00	1 0	N 29 0 W	71.00	2568.72	19.28	19.28 N	10.67 W	0.42
2623.00	1 30	N 31 0 W	54.00	2622.71	20.30	20.30 N	11.26 W	0.28
2672.00	1 30	N 39 0 W	49.00	2671.69	21.35	21.35 N	11.99 W	0.13
2753.00	1 30	N 34 0 W	81.00	2752.66	23.05	23.05 N	13.25 W	0.05
2799.00	1 45	N 70 0 W	46.00	2798.65	23.79	23.79 N	14.25 W	0.67
2894.00	2 0	N 70 0 W	95.00	2893.59	24.85	24.85 N	17.17 W	0.08

Continued on next Page ...

Measured Depth	Drift Angle	Drift Direction	Course Length	Vertical Depth	Vertical Section	R E C T A N G U L A R	C O O R D I N A T E S	Dogleg Severity
2986.00	1 30	N 81 0 W	92.00	2985.55	25.59	25.59 N	19.87 W	0.20
3044.00	2 0	N 67 0 W	58.00	3043.53	26.10	26.10 N	21.55 W	0.34
3135.00	1 30	N 66 0 W	91.00	3134.48	27.21	27.21 N	24.10 W	0.16
3194.00	1 0	N 70 0 W	59.00	3193.47	27.70	27.70 N	25.29 W	0.26

CALCULATION METHOD : Minimum Curvature
SLOT COORDINATES : 0.00 N 0.00 E
BOTTOM HOLE LOCATION : Referenced to CENTRE
DISTANCE : 37.51
DIRECTION : N 42 24 W

REPORT UNITS : Metres

SURVEY RUN INFORMATION

ASSUMED VERTICAL TO 171.4 MT. MD.
EASTMAN WHIPSTOCK MAGNETIC SINGLE SHOT 509 - 3194 MT. MD.

III 10 DRILLING FLUIDS SUMMARY

WELL SUMMARY

COMPANY STATOIL

WELL NO. 15/9-15

AREA North Sea.

COUNTRY Norway.

TOTAL MUD MATERIALS USED FOR WELL

COMPANY Statoil WELL NO. 15/9-15 PAGE 1 of 1

Quantity	Material	Unit/Weight	Unit Cost	Total Cost
121	Bentonite bulk	mt	391.00	47,311.00
111	Bentonite sxs	50 kg	18.80	2,086.80
568	Barite bulk	mt	148.60	84,404.80
471	Caustic Soda	25 kg	21.40	10,079.40
48	Drispac Regular	50 lb	199.00	9,552.00
74	Drispac Superlo	50 lb	208.00	15,392.00
448	Ligcon	25 kg	27.22	12,194.56
5	Al. Stearate	25 kg	99.82	499.10
493	Gypsum	40 kg	10.30	5,077.90
87	Bicarbonate of Soda	50 kg	25.30	2,201.10
795	Unical	25 kg	22.60	17,967.00
328	CMC Lo Vis	25 kg	64.50	21,156.00
148	Mica Fine	25 kg	20.50	3,034.00
39	Mica Coarse	25 kg	20.50	799.50
116	Nut plug fine	25 kg	20.50	2,378.00
39	Nut plug coarse	25 kg	20.50	799.50
38	Soltex	50 lb	99.00	3,762.00
3	MD- Detergent	55 gal	570.00	1,710.00
16	$CaCl_2$	50 kg	31.10	497.60
14	Soda Ash	50 kg	21.70	303.80

TOTAL COST FOR WELL $ 240,721.16

DEPTH AT T.D. 3200 meters

AVERAGE COST per METER for WELL $ 75.23

CASING INTERVAL

COMPANY Statoil Well No. 15/9-15 Page 1 of 6

Casing Size	Meter		(Bit Size)	Meter	
30 "	from 106.5	to 171.5	36 " hole	from 108	to 171.5

Material Consumption for Interval:

Bentonite	22 mt	391.00	8,602.00
Caustic Soda	9 sxs	21.40	192.60
Soda Ash	2 sxs	21.70	43.40
$CaCl_2$	5 sxs	31.10	155.50

Material Cost for Interval $ 8,993.50 Average Cost per Meter $ 141.63

Number of Days 1 Average Cost per Meter $

CASING INTERVAL

COMPANY Statoil Well No. 15/9-15 Page 2 of 6

Casing Size		Meter		(Bit Size)		Meter	
20	" from	106.5	to 498	26	" hole from	171.5	to 498

Material Consumption for Interval:

Barite	96 mt	148.60	14,265.60
Bentonite	33 mt	391.00	12,903.00
Bentonite	2 sxs	18.80	37.60
Caustic Soda	40 sxs	21.40	856.00
Soda Ash	6 sxs	21.70	130.20
Unical	4 sxs	22.60	90.40

Material Cost for Interval $ 28,282.80 Average Cost per Meter $ 86.62

Number of Days 6 Average Cost per ~~Meter~~ Day $ 4,713.80

CASING INTERVAL

COMPANY Statoil Well No. 15/9-15 Page 3 of 6

Casing Size 13 3/8 " from 106 to 1178 Meter

(Bit Size) 17½ " hole from 498 to 1192 Meter

Material Consumption for Interval:

Bentonite	23	mt	391.00	8,993.00
Bentonite	33	sx	18.80	620.40
Caustic Soda	61	sx	21.40	1,305.40
Soda Ash	3	sx	21.70	65.10
Barite	67	mt	148.60	9,956.20
Unical	168	sx	22.60	3,796.80
Gypsum	148	sx	10.30	1,524.40
CMC Lo Vis	48	sx	64.50	3,096.00
Drispac Reg.	14	sx	199.00	2,786.00

Material Cost for Interval $ 32,143.30 Average Cost per Meter $ 46.32

Number of Days 6 Average Cost per ~~Meter~~ Day $ 5,357.22

COMPANY Statoil Well No. 15/9-15 Page 4 of 6

Casing Size			Meter		(Bit Size)		Meter		
9 5/8	" from	106	to	2463	12 1/4	" hole from	1178	to	2478

Material Consumption for Interval:

Barite	52	mt	148.60	7,727.20
Bentonite	27	mt	391.00	10,557.00
Bentonite	11	sx	18.80	206.80
Unical	249	sx	22.60	5,627.40
CMC Lo Vis	280	sx	64.50	18,060.00
Gypsum	330	sx	10.30	3,399.00
Caustic Soda	164	sx	21.40	3,509.60
Ligcon	75	sx	27.22	2,041.50
Drispac Reg.	13	sx	199.00	2,587.00
Drispac S/L	8	sx	208.00	1,664.00
Al-Stearat	4	sx	99.82	399.28
Mica F	148	sx	20.50	3,034.00
Mica C	39	sx	20.50	799.50
Plug F	116	sx	20.50	2,378.00
Plug C	39	sx	20.50	799.50
Soltex	38	sx	99.00	3,762.00
DM-Detergent	3	dr	570.00	1,710.00

Material Cost for Interval $ 68,261.78 Average Cost per Meter $ 52.51

Number of Days 14 Average Cost per ~~Meter~~ Day $ 4,875.84

CASING INTERVAL

COMPANY Statoil Well No. 15/9-15 Page 5 of 6

Casing Size		Meter		(Bit Size)		Meter	
7 "	from		to	" hole	from		to

Material Consumption for Interval: 7" liner section.

Bentonite bulk	8	mt	391.00	3,128.00
Caustic Soda	184	sx	21.40	3,937.60
Barite bulk	279	mt	148.60	41,459.40
Drispac Reg.	5	sx	199.00	995.00
Ligcon	303	sx	27.22	8,247.66
Al-Stearate	1	sx	99.82	99.82
Drispac Superlo	48	sx	208.00	9,984.00
Gypsum	15	sx	10.30	154.50
Bicarbonate of Soda	28	sx	25.30	708.40
Bentonite sxs	65	sx	18.80	1,222.00
Unical	303	sx	22.60	6,847.80

Material Cost for Interval $ 76,784.18 Average Cost per Meter $

Number of Days Average Cost per Meter $

COMPANY Statoil Well No. 15/9-15 Page 6 of 6

COST FROM CEMENTING 7" LINER TO WELL FINISH.

Casing Size		Meter		(Bit Size)		Meter	
______	" from ______	to ______		______	" hole from ______	to ______	

Material Consumption for Interval:

Bentonite bulk	6 mt	391.00	2,346.00
Caustic Soda	13 sx	21.40	278.20
Soda Ash	3 sx	21.70	65.10
Barite	76 mt	148.60	11,293.60
Unical	71 sx	22.60	1,604.60
Drispac Reg	16 sx	199.00	3,184.00
Bicarbonate of Soda	59 sx	25.30	1,492.70
Ligcon	70 sx	27.22	1,905.40
Drispac SL	18 sx	208.00	3,744.00
$CaCl_2$	11 sx	31.10	342.10

Material Cost for Interval $ 26,255.70 Average Cost per Meter $ ______

Number of Days ______ Average Cost per Meter $ ______

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 1 OF

DATE 29/5 DEPTH 150 TIME 2400 ENGINEER Brekke

Spud in. Made up 1100 bbls spud mud. Viscosity 100+. Using 30 bbls on every connection. Mixed 75 bbls $CaCl_2$ in slug pit.

DATE 30/5 DEPTH 172 TIME 2400 ENGINEER Brekke/Skjeggestad

Drl hole to 171 m. Pumped 900 bbl high vis mud in hole. Run 30" casing and cmt same. WOC. Mixed 875 spud mud for next section and 510 bbl kill mud. WT = 1.20 sg. Changed shaker screens to 30 x 30 all over.

DATE 31/5 DEPTH 320 TIME 0130 ENGINEER Brekke/Skjeggestad

WOC. RIH with 26" bit and drl cmt and shoe +2 m. Displaced 30" casing wiht 150 bbls mud. Run pin connector and riser. RIH with 12 1/4" bit. Drl 175 m to 320 m. Adding water and gel mud to control WT and vis. Changed screens all over to 60 x 60. Running mudcleaners and desanders.

DATE 1/6 DEPTH 515 TIME 0030 ENGINEER Brekke/Skjeggestad

Drill 12½" pilot hole from 320 m to 515 m. Sweep hole with 50 bbls viscous mud and circ hole. Clean hole. POOH. Logging. RIH with 17½" bit and 26" reamer. Ream 26" hole from 171 m to 217 m.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 2 OF

DATE 2/6 DEPTH 515 TIME 0000 ENGINEER Brekke/Skjeggestad

Open 12 1/4" hole to 26" from 217 m to 515 m. Circulated to clean hole. POOH. No drag.

DATE 3/6 DEPTH 515 TIME 0000 ENGINEER Brekke/Skjeggestad

Reamed to 515 m. Circulated. Hole clean. Pulled drill string to well head and displaced riser. POOH. Pulled pinconnector and riser. RIH with 26" bit. Displaced hole with 1200 bbls 1.22 sg mud. POOH. Run 20" casing. Filled casing with 450 bbl 1.22 sg mud and displaced casing before cementing.

DATE 4/6 DEPTH 498 TIME 2400 ENGINEER Lea/Skjeggestad

Cmt 20" csg. Displ. w/ seawater. RI w/ washtool. Washed wellhead and guide base. POOH. Test stack. Run BOP and riser. Land BOP. Built 950 bbl gyp/ligno-mud. Will reduce w.l. with cmc. Built 520 bbl gyp/ligno-kill mud. Will weight up to 1.25.

DATE 5/6 DEPTH 398 TIME 2400 ENGINEER Lea/Skjeggestad

Tested BOP. Not able to get test on L.I.K. Valve did not close. P.O. riser and BOP. Test BOP. OK. Run BOP. W.O. new slip joint.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 3 OF

DATE 6/6 DEPTH 518 TIME 2400 ENGINEER Lea/Skjeggestad

W.O. new slip joint. Run BOP. Test BOP. Leak on kill line goose neck. Changed same. New test OK. RIH w/ 17½" bit. Tag cmt at 484 m. Drlg cmt and float collar.

DATE 7/6 DEPTH 857 TIME 2400 ENGINEER Lea/Skjeggestad

Drlg. Cmt and shoe. Drlg. 17½" hole from 515 m to 820 m. Leak off test at 518 m. Eqv. mwt. 1.65. Lost 270 bbl mud due to plugging of flowline. Wipertrip at 617 m, 712 m and 806 m. Tight hole at 736 m. Increased mud wt. at 806 m w/drlg to 1.15. Maintained mud prop. with prehydr. gel, cmc, drispac and unical. Run seawater 30 - 35 bbl/hrs for weight control.

DATE 8/6 DEPTH 1192 TIME 2400 ENGINEER Lea/Skjeggestad

Drlg. 17½" hole from 819 m to 1192 m. Lost 100 bbl mud due to clay plugs in flowline. Dumped shakerbox regularly. Circ. for cond. mud and clean hole. Maintained mud prop. w/ prehydr. gel, drispac, CMC L/V and unical.

DATE 9/6 DEPTH 1192 TIME 2400 ENGINEER Lea/Skjeggestad

Circ. for cond. mud. Wipertrip to shoe. Tight hole from TD to 1125 m. Tight spot 703 m. Circ. hole clean. POOH. No drag. Logging w/ Schlmb. RIH to TD. No fill. Circ. for cond. hole. POOH. No drag. Run 13 3/8" csg.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 4 OF

DATE 10/6 DEPTH 1178 TIME 2400 ENGINEER Lea/Skjeggestad

Cont. RIH w/13 3/8" csg. Pumped and displaced cmt. Dumped 100 bbls cmt contam. mud. Flushed wellhead and BOP area. Run seal assy. Test same. Test BOP. Dumped riser vol. and sandtrap.
Cum. cost corrected for barite used 7/6-82. Treating mud with prehydr. gel, unical and cmc to reduce mudweight and fluid loss.

DATE 11/6 DEPTH 1378 TIME 2400 ENGINEER Lea/Sivertsen

Drlg. cement from 1152 - 1191 m. Cond. mud. Drlg. 12 1/4" hole to 1194 m. Leak off test. Drill ahead to 1284 m. Drop survey. PO to shoe. No drag. RIH. No fill. Drill to 1366 m.

DATE 12/6 DEPTH 1659 TIME 2400 ENGINEER Lea/Sivertsen

Drlg. from 1366 m. Tight spot at 1321 m, and 1469 m. Mud treated cont. with gyp, unical, caustic, cmc and water. Drlg. to 1660 m. No fill when RIH. No drag when PO. for wiper trip.

DATE 13/6 DEPTH 1921 TIME 2400 ENGINEER Lea/Sivertsen

Drlg. 12 1/4" hole from 1660 m. Mud treated with cmc, unical and ligcon. Added more gyp to raise exc. gyp. Cont. adding caustic and seawater. Mud in good shape. Sent 100 sx of milgard to Deep Sea Saga.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 5 OF

DATE 14/6 DEPTH 2101 TIME 2400 ENGINEER Lea/Sivertsen

Drlg 12 1/4" hole from 1946. Drlg. brake at 1942 m. Survey. Tight spot at 1908 m. PPOH. RIH. Filled pipe at 1589 m. Drilled to 2030 m. Circ. btm. up. for samples due to drlg. brake. Survey at 2043 m. PO to 1885 m. Tight hole from 1950 to 1945 m. Mud treated with cmc lv, unical caustic,gyp and seawater. Mud in good shape. Sent to Dyvi Delta: 80 sx Imco Sopt. 1 drum Free Pipe, 5 drums Pipe Lax.

DATE 15/6 DEPTH 2228 TIME 2400 ENGINEER Lea/Sivertsen

Drlg. 12 1/4" hole from 2100 to 2143 m. Tight spot at 2094. Tight hole from 2085 to 2065 m. Drilg to 2228 m. Lost 8 m^3 mud. POOH to 2100 m. Pumped LCM pill. POOH to 1170 m. Circ. Observe well. No loss. RIH. No fill. Started loosing mud 2100 a.m. Made up new LCM pill.

DATE 16/6 DEPTH 1654 TIME 2400 ENGINEER Lea/Sivertsen

Pumped 41.8 m^3 LCM pill. Displaced same w/ 14 m^3 med. No loss pumping pill. Circ. POOH. Sat packer. POOH w/ packer. RIH circ. Minor to no loss. Mud in good shape. Will add water ot keep weight down to 1.20 sp.gr.

DATE 17/6 DEPTH 2223 TIME 2400 ENGINEER Lea/Sivertsen

Circ. and ream from 1660 m to 1700 m. Sudden loss, reaming from 1790 to 1821m. Cont. reaming and circ to 2223 m. Mud in good shape. Will add water cont. to keep weight down.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 6 OF

DATE 18/6 DEPTH 2303 TIME 2400 ENGINEER Nordheim/Sivertsen

Reaming and circ from 2223 to 2228 m. Mud loss. Pumped down 14 m^3 LCM at 2070 m. Reamed to 2228 m. Circ. btm up. Drlg. 12 1/4" hole from 2228 to 2303 m. Added soltex. 5 sx/hr. Cont. adding water to keep weight down. Mud OK. Soltex received from Deep Sea Saga.

DATE 19/6 DEPTH 2410 TIME 2400 ENGINEER Nordheim/Sivertsen

Drilling 12 1/4" hole from 2303 to 2410 m. POOH. Tight spot at 2365 m and 2330 m. Ran degasser 3 hrs. Started mudcleaner 1600 p.m. Screensice 150. Bleeded in prehydrated bentonite to keep visc. between 40 - 50. Mud OK.

DATE 20/6 DEPTH 2437 TIME 2400 ENGINEER Nordheim/Sivertsen

Reamed from 2250 to 2422m. Circ. POOH. Test BOP. RIH. Reamed from 2380 to 2422 m. Drlg. 12 1/4" hole from 2422 to 2432 m. Changed screens on shaker. Started adding LCM an Soltex due to mud loss in formation. Mud OK.

DATE 21/6 DEPTH 2478 TIME 2400 ENGINEER Nordheim /Sivertsen

Drlg 12 1/4" hole from 2437 to 2478 m. Circ and cond mud. POOH for logging. While drlg., LCM added to the mud. Desanders turned off. Mud OK. Prehydrated bent. bleeded in.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 7 OF

DATE 22/6 DEPTH 2478 TIME 2400 ENGINEER Nordheim/Sivertsen

Logging w/ Schlumberger. RIH w/12" bit to 1178 m. Broke circ. Cont. RIH. Broke circ at 1848 m. Washed /reamed to TD 2478 m. 6 m fill. Circ. bottom up. Wiper trip. Mud treated with gyp, CMC, Drispac, Unical. Mud in good shape.

DATE 23/6 DEPTH 2478 TIME 2400 ENGINEER Nordheim/Sivertsen

Wiper trip to 1900 m. 4 m fill. Washed/reamed from 2474 to 2478 m. Circ and cond. mud. POOH. No drag. Ran 9 5/8" casing. Made up new prehydrated bentonite in pit 5.

DATE 24/6 DEPTH 2434 TIME 2400 ENGINEER

Ran casing and cement. RIH with 8½" bit. Tag cmt at 2432 m. Drlg. cmt from 2432 to 2434 m. Started mixing new gel/lignosulf. mud. Dumped old mud except 300 bbls.

DATE 25/6 DEPTH 2505 TIME 2400 ENGINEER Nordheim/Skjeggestad

Displaced hole with new 1.3 sp gr mud. Drilled 8½" hole from 2434 m to 2502 m. POOH and retr. survey. RIH with new bit. Drlg 2502 m to 2505 m. Mixed 300 bbl new bentonite/lignosulf mud.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 8 OF

DATE 26/6 DEPTH 2573 TIME 2400 ENGINEER Nordheim/Skjeggestad

Drilled 8½" hole from 2505 m to 2573 m. Survey. POOH to change bit. Prepared in pit 5 300 bbl prehydrated Bentonite and pit 7 125 bbl ligcon/unical mixture.

DATE 27/6 DEPTH 2630 TIME 2400 ENGINEER Nordheim/Skjeggestad

POOH. Rec. survey. RIH with new 8½" bit. Circ at 2359 m. No fill. Drlg 8½" hole from 2575 m. POOH to change bit. Mud weighted up from 1.30 to 1.40 sp gr.

DATE 28/6 DEPTH 2666 TIME 0100 ENGINEER Nordheim/Skjeggestad

POOH, rec survey. RIH with new 8½" bit. Drlg from 2629 m to 2632 m. Failure MP1 and MP2, POOH to shoe. RIH to TD 2632 m, drlg from 2632 m to 2661 m. Mixed 125 bbl unical/ligcon, add slowly to active.

DATE 29/6 DEPTH 2710 TIME 2400 ENGINEER Nordheim/Skjeggestad

Drlg from 2661 m to 2679 m. POOH. Rec survey. RIH to TD. No fill. Drlg 8½" hole from 2679 m to 2710 m. Raised mud weight to 1.5 sp gr. 7 sxs gypsum added to increase calsium content.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 9 OF

DATE 30/6 DEPTH 2759 TIME 2400 ENGINEER Nordheim/Skjeggestad

Drlg 8½" hole from 2710 m to 2759 m. POOH. Rec survey. RIH with new bit to 2439 m.

DATE 1/7 DEPTH 2805 TIME 2400 ENGINEER Nordheim/Skjeggestad

RIH to 2722 m. Washed and reamed from 2722 m to 2759 m. Drlg 8½" hole from 2759 m to 2805 m. Circ. POOH. RIH w/ 8 15/32" core barrel. 6 sxs gypsum added to mud to increase calcium. Mixed 125 bbl unical/ligcon in seawater.

DATE 2/7 DEPTH 2842 TIME 2400 ENGINEER Hutchings/Skjeggestad

Circ 20 min TD 2805 m. Core from 2805 m to 2823 m. POOH. Test BOP. RIH with 8 15/32" core barrel. Core to 2842 m. POOH.

DATE 3/7 DEPTH 2864 TIME 2400 ENGINEER Hutchings/Skjeggestad

POOH. Rec. core no 2. RIH w/ 8 15/32" CBBL. Circ 30 min. Max gas 148 units. Core from 2842 m to 2860 m. POOH. Rec core no 3. RIH w 8 15/32" CBBL. Circ 20 min. Max gas 100 units. Core 2860 m to 2864 m.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 10 OF

DATE 4/7 DEPTH 2900 TIME 2400 ENGINEER Hutchings/Skjegge-stad

Cut core 2864 m to 2878 m. Circ 10 min. POOH. Rec. core. Logging. RIH with 8½" bit to 2805 m. Wash/reamed from 2805 to 2900 m. Survey mixed 125 bbl unical/ligcon in seawater.

DATE 5/7 DEPTH 3050 TIME 2400 ENGINEER Hutchings/Skjeggestad

RIH 4 m fill. Washed from 2896 m to 2900 m. Drlg 8½" hole from 2900 m to 2993 m. Max gas 226 units. Wiper trip to 9 5/8" casing shoe. RIH TD. No fill. Drlg to 3050 m. Max gas 38 units. POOH to change bit.

DATE 6/7 DEPTH 3200 TIME 2400 ENGINEER Hutchings

Drilled ahead to 3133 m. Drop survey. Wiper trip to 9 5/8 shoe. RIH to 3133 m. No fill. Drilled to 3200 m. TD. Circulated bottoms up. POOH to log. Mixed 80 bbls of ligcon.

DATE 7/7 DEPTH 3200 TIME 2400 ENGINEER Hutchings

Logging.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 11 OF

DATE 8/7 DEPTH 3200 TIME 2400 ENGINEER Hutchings

RIH to 3200 m. Wiper trip. Cleaned sand trap - 60 bbls.
POOH. Logging.

DATE 9/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

Logging w/ Schlumberger.

DATE 10/7 DEPTH 3200 TIME 0100 ENGINEER Sørbø

RIH w/ 8½" bit. Circulated and conditioned mud. PO to csing shoe. RIH to TD. No fill. Circulated bottoms up. POOH. Run 7" liner from 2311 m to 3200 m. Circulated 2500 str. Cemented and displaced liner.

DATE 11/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

PO 10 stands. Circulated long way. No cement in return. POOH. WOC. RIH w/8½" bit and scraper. Tag liner top at 2310 m. No cement. Circulated. Return mud was cement contaminated. POOH. Pressure test liner. No success. RIH w/ open end to 2315 m Pump and displace 150 sxs cement. PO 10 stands. Reverse circulation. Squeeze cement. WOC.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 12 OF

DATE 12/7 DEPTH 3200 TIME 0100 ENGINEER Sørbø

POOH. RIH w/8½" bit and scrapers. Tag cement at 2202 m. Drilled soft and firm cement to 2305 m. Circulated and pressure tested. No success. Drilled to 2310 m. Circulate bottoms up. POOH - RIH open end to 2310 m. Cemented . PO 10 stands. Reversed circulation. Dumped 9 bbls cement. Squeeze cement. WOC. Made 120 bbls premix. Drained it into active while drilling. Run mud-cleaners continously.

DATE 13/7 DEPTH 3200 TIME 0100 ENGINEER Sørbø

POOH. RIH w/8½" bit and casing scrapers. Tag cement at 2212 m. Drill to 2302 m. Circulated. Tested casing to 276 bar - OK. Drill to 2310 m. Test liner overlap to 276 bar - OK. Circulate bottoms up. POOH. Mixed 120 bbls premix. Drained 40 bbl into active while drilling.

DATE 14/7 DEPTH 3200 TIME 0100 ENGINEER Sørbø

RIH w/6" bit and casing scraper. Tag cement at 2310 m. Drilled cement to 2313 m. RIH to 3159 m. Circulate bottoms up. Test 7" liner - OK. POOH. RIH w/5" open end to 1200 m. Set balanced plug at 1200 m. PO 10 stands and reverse circulation. Dumped 10 bbl cement. POOH. RIH and tag cement at 1107 m. Circulate bottoms up. PO to 135 m. Displaced riser w/ seawater. POOH.

DATE 15/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

Pulled stack. Work on BOP.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 13 OF

DATE 16/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

Run BOP. Displaced riser w/ mud. Test BOP - OK. Set wear bushing. RIH to drill cement.

DATE 17/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

Drilled cement from 1107 to 1201 m. Cut mud weight to 1.30 s.g. while drilling. Circulated bottoms up. Continue RIH and tag liner top at 2310 m. Circulate bottoms up and cut mw. POOH. RIH w/6" bit to TD. Circulate and condition mud. POOH. Mixed 200 bbl gel. Drained 125 bbl into active while circulating. Transferred 380 bbl from active to reserve.

DATE 18/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

CBL- log w/ Schlumberger.
Pick up and RIH w 3½" tubing. Test every 60 joint to 60 bar - OK. POOH.

DATE 19/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

RIH w/ Schlumberger and perforated from 2880 to 2890 m. RIH w/ test-string. Tested it - OK. Set packer at 2850 m. Open LPR-N valve and flowed 5 bbl. Shut well in.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 14 OF

DATE 20/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

Testing.

DATE 21/7 DEPTH 3200 TIME 2400 ENGINEER Sørbø

Shut in well. Reversed gas through burner. Flushed lines. Reversed circulation. Transferred 150 bbl from active to reserve. Mixed 70 bbl prehydrated bentonite into active.

DATE 22/7 DEPTH 3200 TIME 2400 ENGINEER Brekke

POOH with landing string. RIH with 3½" DP and packer to 2875 m. Circ long way through choke line. Max gas 641 m units. Open BOP and OBS-OK. Circ long way through riser. POOH. RIH with 6" bit and scraper.

DATE 23/7 DEPTH 2870 TIME 2400 ENGINEER Brekke

Cont. RIH. Circulated out gas. POOH. Run Schlum. with junk basket and gange ring. Run retainer at 2870 m. RIH with stringer and tagged retainer. Circ. bottoms up. Squeezed CMT into perforation sone. Reverse circ out CMT. POOH. Mixed Drispac reg. to maintain high viscosity.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 15 OF

DATE 24/7 DEPTH 2857 TIME 2400 ENGINEER Brekke

Test stack. RIH with bit. Dressed CMT. Circ out CMT. POOH. Schlumberger perforated new sone. RIH with test tubing. Added Drispac Reg. to increase viscosity. Made up 50 bbls gel mud.

DATE 25/7 DEPTH 2857 TIME 2400 ENGINEER Brekke

RIH with test string. Rig up and tested surface equipment. Started DST no 2.

DATE 26/7 DEPTH 2857 TIME 2400 ENGINEER Brekke

Testing.

DATE 27/7 DEPTH 2857 TIME 2400 ENGINEER Brekke

Test sone no 2. Killed well. Circ out gas. Bullhead formation. N/ down surface equipment. Circ.

DAILY ACTIVITY REPORT

COMPANY Statoil WELL NO. 15/9-15 PAGE 16 OF

DATE 28/7 DEPTH 2822 TIME 2400 ENGINEER Brekke

POOH with tubing. RIH with bit and craper. Circ. out gas. POOH. Set retainer on wireline. RIH with stringer and pipe.

DATE 29/7 DEPTH 2247 TIME 2400 ENGINEER Brekke

Plug back to 2247 m.

DATE 30/7 DEPTH 445 TIME 2400 ENGINEER Brekke

Plug back to 455 m.

DATE 31/7 DEPTH 455 TIME 2400 ENGINEER Brekke

Plugging back. Corrected inventory.

DAILY DRILLING MUD ADDITIONS

PROMUD A/S

Contractor: Ross Drilling
OPERATOR: Statoil
LEGAL DESCRIPTION:

Rig No.: Ross Rig
Well Name And No.: 15/9-15
Field: Sleipner
COUNTRY: Norway

Promud a/s Warehouse: Tananger
Spud Date: 28/5
No. Drilling Days To T.D.: 39
DATE T.D. REACHED: 6/7
TOTAL DEPTH: 3200 m
TOTAL COST $: 240,721.26

DATE (19 82)	DEPTH meters	Bentonite (Unit: mt; Cost: 391,-)	Caustic Soda (Unit: 25 kg; Cost: 21.40)	Soda Ash (Unit: 50 kg; Cost: 21.70)	CaCl2 (Unit: 50 kg; Cost: 31.10)	Barite (Unit: mt; Cost: 148.60)	Bentonite (Unit: 50 kg; Cost: 18.80)	Unical (Unit: 25 kg; Cost: 22.60)	Gypsum (Unit: 40 kg; Cost: 10.30)	CMC L/V (Unit: 25 kg; Cost: 64.50)	Drispac reg. (Unit: 50 lb; Cost: 199,-)	Ligcon (Unit: 25 kg; Cost: 27.22)	Al-Stearate (Cost: 99.82)	Mica Fine (Unit: 25 kg; Cost: 20.50)	Mica Coarse (Unit: 25 kg; Cost: 20.50)	Nut plug Fine (Unit: 25 kg; Cost: 20.50)	Nut plug Coarse (Unit: 25 kg; Cost: 20.50)	Drispac S/L (Unit: 50 lb; Cost: 208,-)	Soltex (Cost: 99.00)	Detergent (Cost: 570,-)	DAILY COST	CUMULATIVE COST
29/5	150	22	9	2	5																8,993.50	8,993.50
30/5	172	7	8	1		17															5,456.10	14,449.60
31/5	320																					14,449.60
1/6	515	3	15	1		2															1,812.90	16,262.50
2/6	515	6	11	1		26	2														6,504.30	22,766.80
3/6	515	17	6	3		51		4													14,509.50	37,276.30
4/6	498	13	6	2		18		9	59												8,740.70	46,017.00
5/6	498																				--------	46,017.00
6/6	518		1					11	9	2	1										690.70	46,707.70
7/6	857	6	10	1		47		113	44	36	5										15,889.90	62,597.60
8/6	1192	1	44				33	23	32	10	8										5,039.40	67,637.00
9/6	1192	3				2		12	4												1,782.60	69,419.60
10/6	1178	6	2					18	15	8											3,466.10	72,885.70
11/6	1378	2	1					28		22	4	26									4,358.92	77,244.62
12/6	1659		27			4		35	15	11	2	3									3,306.86	80,551.48
13/6	1921		26			26		48	62	17		46									8,492.02	89,043.50
14/6	2101		14			2		41	2	24											3,092.00	92,135.50
15/6	2228					5		23	17	13			4	114		82					6,693.68	98,829.18
16/6	2228					2	11	4	2	3				15	20	15	20				2,243.50	101,072.68
17/6	2223		27			3		26	52	58								1			6,095.80	107,168.48
18/6	2303		24			3		2	54	49	7								29	3	10,695.30	117,863.78
19/6	2410	9	19					2	47	13								4			6,125.40	123,989.18
20/6	2437		8					9	31	19				4	4	4	4		2		2,445.40	126,434.58

Date: 20/6
Promud a/s Technical Representative: Brekke/Lea
District:
Region:

DAILY DRILLING MUD ADDITIONS

PROMUD A/S

Contractor: Ross Drilling
OPERATOR: STATOIL
LEGAL DESCRIPTION:

Rig No.: Ross Rig
Well Name And No.: 15/9-15
Field: Sleipner
COUNTRY: Norway

Promud a/s Warehouse: Tananger
Spud Date: 28/5
No. Drilling Days To T.D.: 39
DATE T.D. REACHED: 6/7
TOTAL DEPTH: 3200 m
TOTAL COST $: 240,721.26

DATE (19 82)	DEPTH meters	Bentonite (Unit mt, Cost 391.00)	Caustic Soda (Unit 25 kg, Cost 21.40)	Barite (Unit mt, Cost 148.60)	Unical (Unit 25 kg, Cost 22.60)	CMC L/V (Unit 25 kg, Cost 64.50)	Drispac Reg. (Unit 50 lb, Cost 199.00)	Ligcon (Unit 25 kg, Cost 27.22)	Al-Stearate (Unit, Cost 99.82)	Mica F. (Unit 25 kg, Cost 20.50)	Mica C. (Unit 25 kg, Cost 20.50)	Nut plug F (Unit 25 kg, Cost 20.50)	Nut plug C (Unit 25 kg, Cost 20.50)	Drispac S/L (Unit 50 lb, Cost 208.00)	Soltex (Unit, Cost 99.00)	Gypsum (Unit 40 kg, Cost 10.30)	Bicarbonate of Soda (Unit 50 kg, Cost 25.30)	sxs Bentonite (Unit 50 kg, Cost 18.80)	(Unit, Cost)	(Unit, Cost)	DAILY COST	CUMULATIVE COST
21/6	2478		8		11	33				15	15	15	15		7	24					4,718.50	131,153.08
22/6	2478		3	5	1	7								3		9					1,998.00	133,151.08
23/6	2478	10	5	2	1	3															4,530.30	137,681.38
24/6	2434		19		106			92									11	60			6,712.74	144,394.12
25/6	2505	5	16	68	43		1	80						12			5				18,373.10	162,767.22
26/6	2573	3	57	29	32		4	45	1					4			2				10,428.72	173,195.94
27/6	2630		14	30																	4,757.60	177,953.54
28/6	2666		20	13	33			26						2			2	5			4,373.92	182,327.46
29/6	2710			49												7					7,353.50	189,680.96
30/6	2759		9	11										5		1					2,877.50	192,558.46
1/7	2804		14	22	41			20						10		6					7,181.60	199.740.06
2/7	2842		15	13												1					2,263.10	202,003.16
3/7	2864													3							624.00	202,627.16
4/7	2900		2	12	20			20						4							3,654.40	206,281.56
5/7	3050		10	14	11									8							4,207.00	210,488.56
6/7	3200		2	8				20													1,776.00	212,264.56
7/7	3200																				--------	212,264.56
8/7	3200		5		10																333.00	212,597.56
9/7	3200																				--------	212,597.56
10/7	3200		1	10	7																1,665.60	214,263.16
11/7	3200																8	End	7" liner.		202.40	214,465.56
12/7	3200	1	6	33	45			45						12			27				10,844.20	225,309.76
13/7	3200	1	4	7	25		2	25						6			13				4,727.20	230,046.96

Date 13/7 Promud a/s Technical Representative ______ District ______ Region ______

DAILY DRILLING MUD ADDITIONS

PROMUD A/S

Contractor: Ross Drilling
OPERATOR: Statoil
LEGAL DESCRIPTION:

Rig No.: Ross Rig
Well Name And No.: 15/9-15
Field: Sleipner
COUNTRY: Norway

Promud a/s Warehouse: Tananger
Spud Date: 28/5
No. Drilling Days To T.D.: 39
DATE T.D. REACHED: 6/7
TOTAL DEPTH: 3200 m
TOTAL COST $: 240,721.26

DATE (19 82)	DEPTH meters	Barite	Bentonite	Caustic Soda	Unical	Ligcon	Drispac S/L	Drispac reg.	Bicarbonate of Soda	Soda Ash	$CaCl_2$										DAILY COST	CUMULATIVE COST
	Unit	mt	mt	25 kg	25 kg	25 kg	25 kg	25 kg	50 kg	50 kg	50 kg											
	Cost	148.60	391.00	21.40	22.60	22.60		199.00	25.30	21.70	31.10											
14/7	3200	10							1												1,511.30	231,558.26
15/7	3200								4												101.20	231,659.46
16/7	3200				NO USAGE																--------	231,659.46
17/7	3200	5	4	2	1			9	14	3											4,582.70	236,242.16
18/7	3200				NO USAGE																--------	236,242.16
19/7	3200																				--------	236,242.16
20/7	3200																				--------	236,242.16
21/7	3200	4																			594.40	236,836.56
22/7	3200	5																			743.00	237,579.56
23//	2870							3													597.00	238,176.56
24/7	2857			1				2													419.40	238,595.96
25/7	2857																				--------	238,595.96
26/7	2857																				--------	238,595.96
27/7	2857																				--------	238,595.96
28/7	2822	7																			1,040.20	239,636.16
29/7	2247	3																			445,80	240,081.96
30/7	455																				--------	240,081.96
31/7	455	2									11										639.30	240,721.26

Date: 31/7
Promud a/s Technical Representative: Sørbø/Brekke
District: Tananger
Region:

PROMUD A/S

DRILLING MUD RECAP

Contractor ROSS DRILLING OPERATOR STATOIL LEGAL DESCRIPTION

Rig No. ROSS RIG Well Name And No. 15/9-15 Field Sleipner. COUNTRY Norway.

Promud a/s Warehouse Tananger. Spud Date 28/5 No. Drilling Days To T.D. 39 DATE T.D. REACHED 6/7 TOTAL DEPTH 3200 m TOTAL COST $ 240,721.26

DATE (1982)	TIME	DEPTH meters	WT (ppg)	FV API	PV cp	YIELD POINT (lb/100ft2)	GELS (lb/100ft2) 0/10	pH	FILTRATE (ml/30 min) API	HT-HP	°F	Cake (32nd in)	Alkalinity P_m	P_f / M_f	Chloride (ppm)	Calcium (ppm)	Sand (% by Vol.)	Solids (% by Vol.)	Oil (% by Vol.)	Water (% by Vol.)	Methy. Blue (me/ml mud)	Exc. Gyp.	Circ. Volume (bbl)	REMARKS
29/5	2400	150	1.04	100+																				Spud in.
30/5	2400	172	1.04	50																				Drill to 172m, run 30" csg.
31/5	0130	320	1.11	36	6	31																		Drill 175 m to 320 m.
1/6	0030	515	1.10	42																				Drill 12 ½" to 515m, log, ream
2/6	0000	515	1.22	45																				Open 12 1/4" hole to 26".
3/6	0000	515	No mud in pits.																					Run 20" casing, cmt.
4/6	0230	498	1.09	40	6	18	7/10	10.8	38			3	0.4	.1/.2	900	640	0	4	0	96	25	4.5		Cmt 20" csg. Run BOP.
5/6	0100	498	1.09	40	7	16	6/10	10.5	36			3	0.4	.1/.2	900	640	0	4	0	96	25	4.5		Test BOP. W.O. New sup joint.
6/6	0130	518	1.09	48	9	22	5/12	12	38			3	4.8	1.2/1.5	3300	1080	TR	4	0	96	23	3.2		Run BOP. Drilling cmt.
7/6	0200	857	1.17	43	7	12	5/8	9.4	18			2	0.2	.1/.3	12800	1600	1/4	8	0	92	22.5	3.0		Drilling 17 1/2" hole.
8/6	0230	1192	1.15	44	8	15	8/12	9.5	24			2	0.3	.1/.2	13000	1480	1/4	8	0	92	23	2.2		Drilling 17 1/2" hole. Circ.
9/6	0130	1192	1.16	42	6	12	8/16	9.2	22			2	0.3	.1/.3	12500	1360	TR	9	0	91	23	2.4		Wipertrip. Log. Run 13 3/8" csg.
10/6	0200	1178	1.13	46	7	12	3/15	9	13			1	0.3	.1/.2	8000	1600	TR	6	0	94	23	2.6		Run csg. Cmt csg.
11/6	2400	1378	1.14	49	9	12	8/16	10.4	13			1	1.6	.1/.4	12000	1680	1/4	7	0	93	30			Drilling cmt. Drilling.
12/6	2400	1659	1.15	44	9	14	9/30	9.9	13			1	0.55	.12/.4	15000	1600	1/4	7	0	93	30	1.0		Drilling wipertrip.
13/6	2400	1921	1.20	45	8	13	10/25	10.2	10			1	1.6	.2/.6	17500	2080	1/4	10	0	90	32.5	3.5		Drilling 12 1/4".
14/6	2400	2101	1.20	42	8	10	6/25	9.8	9.2			1	0.5	.1/.6	20000	1840	1/4	8	0	92	32.5	1.43		Drilling 12 1/4".
15/6	1500	2228	1.20	45	8	12	8/20	10.2	8.9			1	0.5	.1/.6	20000	2000	1/4	8	0	92	32.5	1.4		Drilling 12 1/4". Lost mud.
16/6	2400	2228	1.20	47	6	13	13/25	10.3	9.0			1	0.5	.1/.6	18500	1800	1/2	8	0	92	35	1.75		Spot LCM pill, test csg.
17/6	2400	2223	1.20	45	8	13	8/30	9.8	8.3			1	0.6	.1/.6	20500	1920	TR	8	0	92	35	1.0		Circ. and ream.
18/6	2400	2303	1.20	45	12	12	7/20	10.5	8.3			1	0.6	.1/.6	21000	2400	.25	10	0	90	35	3.0		Circ. and ream.
19/6	2400	2410	1.20	47	10	15	11/25	10.5	8.6			1	1.2	.1/.7	21000	2080	TR	10	0	90	35			Drilling 12 1/4".
20/6	2400	2437	1.22	46	9	13	5/22	9.8	8.4			1	0.6	.1/.7	21000	2000	TR	10	0	90	35	1.75		Ream.
21/6	2400	2478	1.22	47	6	10	3/21	9.5	5.9			1	0.5	.1/.7	21000	1920	TR	8	0	92	40	1.9		Logging.
23/6	2400	2478	1.22	44	7	13	4/20	9.8	5.2			1	0.5	.1/.7	20000	1920	TR	8	0	92	37.5	1.6		Casing.
24/6	2400	2434	1.22	45	9	9	4/18	10.5	5.8			1	0.8	.1/.7	20000	2000	TR	8	0	92	35	1.2		CMT.
25/6	2400	2505	1.30	50	9	10	2/14	9.7	4.0	13	300	1	0.8	.2/.8	13000	240	TR	10	0	90	25			Drilling 8 1/2".
26/6	2400	2573	1.30	46	11	11	3/14	9.6	3.2	15	300	1	1.3	.2/.9	13500	200	TR	11	0	89	25			Drilling.

Date 26/6/82. Promud a/s Technical Representative Brekke. District North Sea. Region Norway. PAGE 1 OF 3

PROMUD A/S

DRILLING MUD RECAP

Contractor: ROSS DRILLING — OPERATOR: STATOIL — LEGAL DESCRIPTION:

Rig No.: ROSS RIG — Well Name And No.: 15/9-15 — Field: Sleipner. — COUNTRY: Norway.

Promud a/s Warehouse: Tananger. — Spud Date: 28/5 — No. Drilling Days To T.D.: 39 — DATE T.D. REACHED: 6/7 — TOTAL DEPTH: 3200 m — TOTAL COST $: 240,721.26

DATE (19 82)	TIME	DEPTH meters	WT (ppg)	FV API	PV cp	YIELD POINT (lb/100ft²)	GELS (lb/100ft²) 0/10	pH	FILTRATE (ml/30 min) API	FILTRATE HT-HP	FILTRATE °F	Cake (32nd in)	Alkalinity P_m	Alkalinity P_f / M_f	Chloride (ppm)	Calcium (ppm)	Sand (% by Vol.)	Solids (% by Vol.)	Oil (% by Vol.)	Water (% by Vol.)	Methy. Blue (me/ml mud)		Circ Volume (bbl)	REMARKS
27/6	2400	2630	1.40	53	18	14	3/18	10.3	3.2	11.2	250	1	1.5	.4/1.8	13500	250	TR	17		83	25		1100	Drilling.
28/6	0100	2666	1.40	52	15	12	4/13	10.8	3.5	12.0	200	1	2.5	.4/1.9	15000	50	TR	15		85	22.7		1170	Drilling.
29/6	2400	2710	1.50	52	18	14	3/15	10.1	4.7	12.0	200	1	1.4	.3/1.4	15000	140	TR	19		81	25		1175	Drilling.
30/6	2400	2759	1.50	60	18	15	4/17	10.6	5.4	12.4	200	1	1.9	.8/2.5	17000	50	TR	19		81	22.5		1185	Drilling. Tripping.
1/7	2400	2805	1.50	49	19	15	3/16	10.2	4.6	12.8	250	1	1.1	.6/2.6	16000	120	TR	19		81	21		1230	Drilling. POOH.
2/7	2400	2842	1.50	50	18	14	3/16	11	5.4	14.6	225	1	1.5	1.1/3.0	16000	120	TR	19		81	21		1200	Core.
3/7	2400	2864	1.50	50	17	14	3/15	11	4.8	14.8	250	1	2.5	1.3/2.6	16000	100	TR	19		81	22.5		1158	Core.
4/7	2400	2900	1.50	53	17	12	3/15	10.5	4.6	13.2	225	1	2.2	.7/2.8	17000	100	TR	19		81	21		1155	Drilling.
5/7	2400	3050	1.50	53	18	13	3/15	10.2	5.0	15.0	225	1	2.1	.8/2.8	17500	100	TR	19		81	20		1244	Drilling.
6/7	2400	3200	1.50	54	17	14	3/15	10.5	5.0	15.0	225	1	2.4	.8/2.4	17500	120	TR	19		81	21		1275	Drilling & wiper trip.
7/7	2400	3200	1.50	52	17	14	3/15	10	5.0	15.0	225	1	2.0	.7/1.9	17000	120	TR	19		81	21		1275	Logging.
8/7	2400	3200	1.50	58	18	15	3/15	10	5.2	15.3	225	1	1.9	.7/1.9	17500	120	TR	20		80	21		1255	Trip - logging.
9/7	2400	3200	1.50	52	15	12	3/15	10.2	5.1	15.2	225	1	1.8	.5/1.6	17000	120	TR	20		80	22.5		1255	Logging.
10/7	2400	3200	1.50	54	17	14	3/15	10	5.2	15.5	225	1	1.7	.45/1.5	18000	120	TR	20		80	20		1191	Set & cmt. 7" liner.
11/7	2400	3200	1.50	58	16	17	5/19	12.1	7.7	21.2	225	2	8.3	1.6/3.2	17500	150	TR	21		79	20		1165	No cmt. - squeeze.
12/7	0100	3200	1.50	52	14	13	3/13	12	6.2	16.3	225	1	7.6	3.5/5	18500	100	TR	19		81	20		1240	Squeezed again.
13/7	0100	3200	1.50	52	14	14	3/13	12	6.1	16.5	225	1	8.2	4.7/6.8	18000	110	TR	19		81	20		1245	Tested liner - OK.
14/7	0100	3200	1.50	52	14	13	3/13	12	6.4	16.8	225	1	8.4	4.1/5.6	18000	120	TR	19		81	20			Displ. riser with seawater.
15/7	2400	3200	1.50	49	11	11	3/11	12	6.6	17.0	225	1	7.9	4.6/6.3	18000	100	TR	19		81	20			Pulled stack.
16/7	2400	3200	1.50	50	13	12	3/12	12	6.4	16.8	225	1	7.8	4.5/6.1	19000	100	TR	19		81	20		1208	Run & test BOP.
17/7	2400	3200	1.30	47	8	10	3/10	11.8	7.5	17.3	225	1	6.2	2.8/3.9	18000	150	TR	14		86	20		1214	Cut mw. to 1.30.
18/7	2400	3200	1.30	49	9	10	3/11	11.8	7.5	17.3	225	1	6.2	2.8/3.9	18000	150	TR	14		86	20		1214	RIH with tubing.
19/7	2400	3200	1.30	49	8	11	3/12	11.8	7.3	17.1	225	1	6.1	2.4/3.2	18000	150	TR	14		86	20			Perforated. Set tubing.
20/7	2400	3200	1.30	45	9	9	3/9	11.8	7.6	17.5	225	1	6.1	2.3/3.2	18000	150	TR	14		86	20			Testing.
21/7	2400	3200	1.30	52	12	12	3/13	11.8	6.8	16.7	225	1	6.0	2.2/3.0	15500	120	TR	14		86	22.5		1105	Shut in & killed well.
22/7	2400	3200	1.30	52	11	12	3/12	11.8	6.8	16.7	225	1	6.0	2.2/3.0	15000	120	TR	14		86	22.5		936	
23/7	2400	2870	1.30	50	11	11	3/12	11.9	7.0	16.7	225	1	6.5	2.2/3.0	15000	120	TR	14		86	22.5			Perf. new test zone.
24/7	2400	2857	1.31	51	12	12	2/10	12	6.0	16.7	225	1	9.0	2.5/3.5	15000	120	TR	14		86	22.5			RIH with test tubing.

Date: 24/7/82. — Promud a/s Technical Representative: Sørbø/Brekke. — District: North Sea. — Region: Norway.

PROMUD A/S

DRILLING MUD RECAP

Contractor ROSS DRILLING OPERATOR STATOIL LEGAL DESCRIPTION

Rig No. ROSS RIG Well Name And No. 15/9-15 Field Sleipner. COUNTRY Norway.

Promud a/s Warehouse Tananger. Spud Date 28/5 No. Drilling Days To T.D. 39 DATE T.D. REACHED 6/7 TOTAL DEPTH 3200 m TOTAL COST $ 240,721.26

DATE (1982)	TIME	DEPTH meters	WT (ppg)	FV API	PV cp	YIELD POINT (lb/100ft²)	GELS (lb/100ft²) 0/10	pH	FILTRATE (ml/30 min) API	HT-HP	°F	Cake (32nd in)	Alkalinity P_m	P_f / M_f	Chloride (ppm)	Calcium (ppm)	Sand (% by Vol.)	Solids (% by Vol.)	Oil (% by Vol.)	Water (% by Vol.)	Methy. Blue (me/ml mud)		Circ. Volume (bbl)	REMARKS
25/7	2400	2857	1.31	50	12	12	2/10	12	6.0	16.5	220	1	9.0	2.5/3.5	15000	120	TR	14		86	22.5			Testing.
26/7	2400	2857	1.31	48	12	9	2/10	12	6.0	16.5	220	1	9.0	2.5/3.5	15000	120	TR	14		86	22.5			Testing.
27/7	2400	2857	1.31	48	12	9	2/10	12	6.0	16.5	220	1	9.0	2.5/3.5	15000	120	TR	14		86	22.5			Killed well.
28/7	2400	2822	1.31	48	12	9	2/10	12	6.0	16.5	220	1	9.0	2.5/3.5	15000	120	TR	14		86	22.5			Plugging back.
29/7	2400	2247	1.31	46	12	9	2/10	12	6.0	16.5	220	1	10.0	2.5/35	15000	120	TR							Plugging back.
30/7	2400	455	1.31	48																				Plugging back.
31/7	2400	455	1.30	43																				Plugging back.

Date 31/7/82 Promud a/s Technical Representative Brekke. District North Sea. Region Norway. PAGE 3 OF 3

IV MARINE REPORT

IV 1. WEATHER AND ANCHOR TENSION 15/9-15

This well was drilled in the summer season and there was no downtime due to weather conditions.

The main wind direction were N. A maximum wind speed of 20 m/s W was reported.

Main wave directions were N. Maximum wave height was measured to 6 m from N.

Maximum experienced anchor tension was 139 ton on anchor no.3 the 6th of July.
Wind speed was 8 m/s from N, 2m waves from W with 10 sec. periods.

LOCATION WEATHER DATA SUMMARY

statoil
Den norske stats oljeselskap a.s

WELL: 15/9-15 RIG: ROSS RIG

TIME PERIOD: FROM 28/5 TO 3/8 -19 82

READINGS PR. MONTH: One reading pr. day

WIND

dir. \ m/sec.	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	> 30	total
N	1	8	7	2				18
NNE		1						1
NE		5						5
ENE								
E		1	3					4
ESE								
SE		2	2					4
SSE	1							1
S		3	5	1				9
SSW								
SW		2	2					4
WSW			1					1
W	2	3			1			6
WNW		1						1
NW	1	1	4					6
NNW		1	5					6
total	5	28	29	3	1			

WAVE

dir. \ height (m)	0 – 1	1 – 2	2 – 3	3 – 5	5 – 7	7 – 10	> 10	total
N	2	3	6	7	2			20
NNE				1				1
NE	1	1	3					5
ENE								
E		3		1				4
ESE								
SE		1	2	2				5
SSE		2						2
S		4	1	1				6
SSW								
SW		2	3					5
WSW								
W		4	1	1	1			7
WNW			1					1
NW		1	4					5
NNW		3	2					5
total	3	24	23	13	3			

4.00.23

NAVIGATION REPORT

RIG MOVE OF "ROSS RIG" TO WELL 15/9-15.

1. Final position

58° 18' 07.35"N, 01° 55' 19,28"E

Accuracy: 5 meters (Translocation)

Rig heading: 310°

Deviation from intended position: 20 m - 314°

2. Observed Decca Main Chain readings

Chain: Vestlandet OE

Red : B 2,4
Green : H 41,0
Purple: FC 52,6

3. Navigation/positioning method.

a) Navigation

Pulse/8 navigation system with HP computer and plotter. (Q-6 package)
Navigation contractor: Racal-Decca Survey Norway A/S, Bergen
Personnel: L. Foldnes

b) Positioning:

MX-1502 satellite positioning system.
Contractor: A/S Geoteam, Oslo
Personell: G. Nachom

4. Duration of the rig move

Pulse/8 equipment and personnel onboard	:	27 May 1982 at 18.30 hours
Satnav equipment and personnel onboard	:	27 May 1982 at 18.30 hours
Rig left 15/9-13	:	28 May 1982 at 02.15 hours
Start run in (5 kms from loc.)	:	28 May 1982 at 04.25 hours
Dropped first anchor (no. 5)	:	28 May 1982 at 05.30 hours
Dropped last anchor (no. 3)	:	28 May 1982 at 12.00 hours
All anchors tensioned to 180 t	:	28 May 1982 at 18.20 hours
Start drilling	:	28 May 1982 at 19.30 hours

4. Techniques/problems

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

Discreapency between Pulse/8 position and Sat.nav. position was 16 m - 344^{o} (Pulse/8 position W.N.W. of Sat.nav. position.

V PETROPHYSICAL EVALUATION

PETROPHYSICAL EVALUATION 15/9-15

The Jurassic sand in 15/9-15 was logged with the following tools:

- ISF/SONIC/MSFL/GR
- LDT/CNL/GR
- DLL/MSFL/GR
- HDT
- RFT

A preliminary petrophysical evaluation has been done with the following input parameters:

Formation temperature at 2870 m RKB:	107.1°C	
Interval, m RKB:	2800 - 2860	2860 - 3000
Rw at 107.1°C, ohm m:	0.028	0.028
Rmf at 107.1°C, ohm m:	0.062	0.062
Rtsh, ohm m:	1.7	1.0
Rhobsh, g/cc:	2.46	2.46
PHINsh, frac.:	0.31	0.31
Rhoma, g/cc:	2.67	2.67
PHINma, frac.:	-0.035	-0.035
Rhobfl, g/cc:	1.02	1.02
GRcorr min:	18	30
GRcorr max:	86	76
SP min:	-43	-7
SP max:	-43	-7
M:	1.7	1.7
N:	1.9	1.9
Vsh-exp.:	1.6	1.6

The Rw value has been calculated from logs.

A shaly sand method has been applied, using the North Sea equation, for the evaluation.

The top of the Jurassic sand was reached at 2819 m RKB. The log evaluation indicates a gas-water contact at 2920 m RKB.

Statistics:

Interval:	2819 - 2920 m RKB
Total thickness:	101 m
Net pay:	64 m
Net sand:	71 m
Av. porosity, net pay:	0.18
Av. shale content, net pay:	0.12
Av. water saturation, net pay:	0.39
H net pay/H gross sand ratio:	0.63
Cut-off values applied:	Vsh > 0.40
	Ø < 0.10
	Sw > 0.60

VI RFT AND TEST SUMMARY

RFT-RESULTS 15/9-15

Three successful RFT-runs were made in this well. The pressure measurements indicated a gas gradient down to 2923 m RKB and a water gradient below this depth.

A segregated sample (2 3/4 gallon chamber + 1 gallon chamber) was taken during each run. Gas and condensate together with some mudfiltrate were recovered from all three samples. Two 1 gallon chambers were sent to the laboratory for PVT-analysis. For further details on sampling see remarks column in RFT DATA sheets. No sampling was attempted in the water zone.

Results:	Gas gradient	=	0.0336 Bar/m
		=	0.3416 S.G.
		=	0.1485 psi/ft
	Gas-water contact, GWC	=	2923 m RKB
	Water-gradient	=	0.1077 Bar/m
		=	1.0987 S.G.
		=	0.4763 psi/ft
	Sampling: H_2S	=	negative
	CO_2	=	trace
	Condensate S.G.	=	0.76
	Max. recorded temp.	=	106°C

Plot: The pressure measurements are plotted in Fig. 1, and gradients and GWC are indicated. The CAL is shaded where holesize exceeds 8.5 in (washouts). Initial build-up pressures from the two DST's are plotted for comparison.

Field:	Sleipner
Well:	15/9-15
Run no.:	1

RFT DATA

Page:	2
Perfs.	–
Date/sign.:	

Test no.	Depth RKB m	Log hydr.pr. before test bar	Cor.hydr.pr. before test bar	Drawdown bar	Build up time sec	Log.formation pres. bar	Cor.formation pres. bar	Log hydr.pr. after test bar	Cor.hydr.pr. after test bar	Remarks
1	2823	418.06	417.68	334.95	303	338.02	337.57	418.34	417.96	Set twice supercharge?
2	2828.5	418.96	418.58	20.34	80	337.88	337.43	418.96	418.58	
3	2837	420.20	419.82	222.70	82	338.15	337.71	420.06	419.68	
4	2844.5	421.17	420.79	29.92	64	338.29	337.84	421.10	420.72	
5	2851	422.13	39.37	39.37	64	338.64	338.19	422.13	421.75	
6	2859.5	423.65	423.27	30.68	50	338.98	338.53	423.44	423.06	
7	2868.5	425.03	424.65	80.12	70	339.46	339.02	424.82	424.44	
8	2873	425.51	425.13	107.35	79	339.26	338.81	425.51	425.13	
9	2878.5	426.34	425.96	12.89	66	339.53	339.08	426.34	425.96	
10	2882.5	426.89	426.51	4.69	54	339.60	339.15	426.89	426.51	
11	2889	417.92	417.54	25.30	60	339.88	339.43	427.85	427.47	
12	2897	429.10	428.72	–	–	tight	–	428.96	428.58	Tight
13	2897.5	429.10	428.72	23.19	53	340.64	340.19	429.23	428.85	
14	2907	430.54	430.16	1.65	70	340.36	339.91	430.54	430.16	
15	2914	431.58	431.20	174.92	102	340.91	340.46	431.51	431.13	
16	2919	432.27	431.89	–	–	tight	–	432.27	431.89	Tight
17	2922	432.68	432.30	109.90	90	340.91	340.46	432.75	432.37	
18	2827	433.37	432.99	1.10	69	341.26	340.81	433.37	432.99	
19	2933	434.20	433.82	175.26	248	342.43	341.98	434.06	433.68	
20	2941.5	435.92	435.54	–	–	tight	–	436.06	435.68	Set twice, Tight
21	2941	435.37	434.99	15.17	64	345.12	344.67	435.71	435.33	Supercharge?
22	2947	436.40	436.02	1.72	60	343.88	343.43	436.61	436.23	

Field:	Sleipner
Well:	15/9-15
Run no.:	1

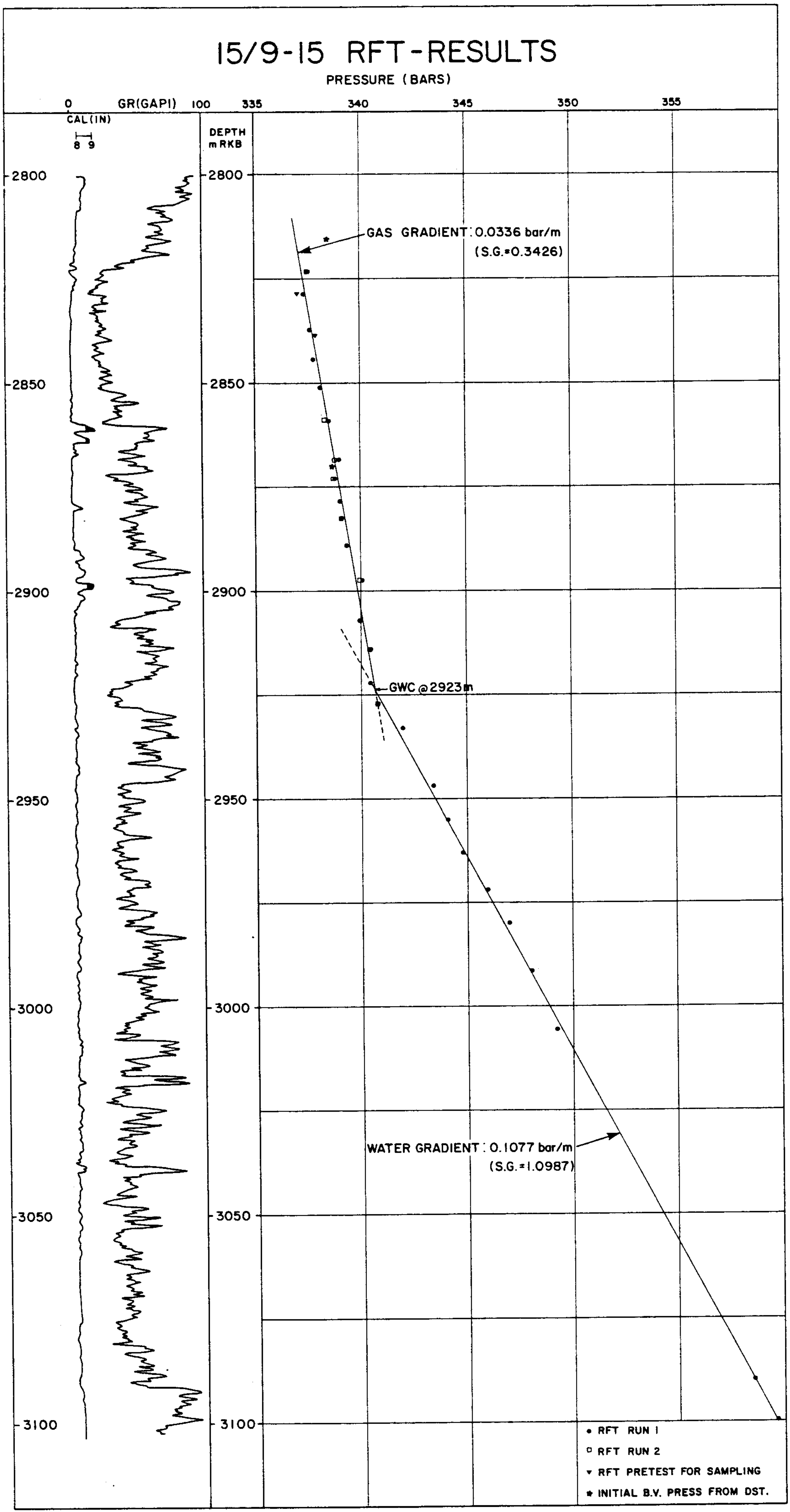
RFT DATA

Page:	3
Perfs.	–
Date/sign.:	

Test no.	Depth RKB m	Log hydr.pr. before test bar	Cor.hydr.pr. before test bar	Drawdown bar	Build up time sec	Log.formation pres. bar	Cor.formation pres. bar	Log hydr.pr. after test bar	Cor.hydr.pr. after test bar	Remarks
23	2955	437.64	437.27	0.97	105	344.57	344.12	437.44	437.06	
24	2963	438.47	438.09	2.34	54	345.25	344.81	438.27	437.89	
25	2872	439.99	439.61	4.07	82	346.43	345.99	439.85	439.47	
26	2980	441.23	440.85	9.45	96	347.46	347.02	441.23	440.85	
27	2991.5	443.02	442.64	6.89	52	348.50	438.05	442.68	442.30	
28	3005.5	444.88	444.51	3.45	62	349.67	349.23	444.47	444.09	
29	3090	457.02	456.65	354.39	52	359.04	358.62	457.16	456.78	
										Segregated sample:
30	2828.5	418.96	418.58	2.21	77	337.60	337.15			Pretest
				292.20	930	81.82	81.32			2 3/4 gal.ch: Plugged with fine sand. Empty-
				271.17	990	331.26	330.80	418.62	418.24	1 gal.ch: Opening press. 142.34 bar
										Recovery: 0.38 m^3 gas
										0.5 l condensate
										1.5 l mudfiltrate
										H_2S: negative
										CO_2: trace

Field:	Sleipner	RFT DATA	Page: 4
Well:	15/9-15		Perfs. –
Run no.:	2 and 3		Date/sign.:

Test no.	Depth m	Log hydr.pr. before test kPa	Cor.hydr.pr. before test kPa (g/cc)	Drawdown kPa	Build up time sec	Log.formation pres. kPa	Cor.formation pres. kPa (g/cc)	Log hydr.pr. after test kPa	Cor.hydr.pr. after test kPa (g/cc)	Remarks
run 2										
1	2823	418.20	417.82	39.92	150	338.02	337.56	418.48	418.10	
2	2859	423.10	422.72	143.69	66	338.84	338.39	423.10	422.72	
3	2868.5	424.48	424.10	81.98	85	339.33	338.87	424.61	424.23	
4	2873	425.30	424.92	120.18	105	339.19	338.73	425.37	424.99	
5	2882.5	426.75	426.37	8.27	58	339.60	339.15	426.89	426.51	
6	2897.5	428.82	428.44	13.79	88	340.57	340.12	428.96	428.58	
7	2914	431.16	430.78	55.09	210	340.91	340.46	431.44	431.06	
8	2927	433.23	432.85	4.76	80	341.26	340.81	433.30	432.92	
9	2838.5	420.48	420.10	24.68	70	338.43	337.97			Segregated sample: Pretest
				34.06	390	337.46	337.01			2 3/4 gal.ch: opening pressure 152.68 bar Recovery: 0.78m^3 gas 0.3 l cond. 7.2 l mud filtr.
				37.09	300	337.19	336.73	419.44	419.06	1 gal.ch: sent to lab.
run 3										Segregated sample:
1	2907	430.54	430.16	2.28	100	340.43	339.98			Pretest
				4.90	960	341.26	340.81			2 3/8 gal.ch: Opening press: 156.13 bar Recovery: 0.93m^3 gas 1.0 l cond., 2.0 l mud filtr. cond.grav. = 0.76
				22.06	210	341.26	340.81	431.44	431.06	1 gal.ch: sent to lab.



15/9-15 RFT-RESULTS
PRESSURE (BARS)
0
GR(GAPI)
100
CAL(IN)
8 9
335
340
345
350
355
DEPTH
m RKB
2800
2850
2900
2950
3000
3050
3100
GAS GRADIENT: 0.0336 bar/m
(S.G.=0.3426)
GWC @ 2923 m
WATER GRADIENT: 0.1077 bar/m
(S.G.=1.0987)
RFT RUN 1
RFT RUN 2
RFT PRETEST FOR SAMPLING
INITIAL B.V. PRESS FROM DST.

Fig. 1.

TEST RESULTS 15/9-15

Two drill stem tests were carried out in sandstones of Jurassic age. Both tests produced gas and condensate. Pressure and composition indicated that there is no communication to the other structures that have been drilled in the 15/9-block. Table 1 gives a summary of the test results.

DST NO. 1

The main purpose of this test was to check log cut-offs. Other objectives were fluid samples and reservoir parameters. The well produced small amounts of sand imediately after increasing to one inch choke for third multirate, but stabilized on sand- free production soon after. Dräger-measurements indicated an average CO_2-content of 0.5% in the gas. H_2S-measuremnets were negative. Five sets of PVT-samples were taken from the separator during production. No formation water was produced.

DST NO. 2

The main objectives of this test were reservoir parameters, productivity, fluid sampling and sand stability. Traces of solids were produced during the clean-up flow, after which sandfree production was maintained throughout the test. Dräger-measurements indicated an average CO_2-content of 0.5%. H_2S-measurements were negative. Four sets of PVT-samples were taken from the separator during the production. No formation water was produced.

TEST RESULTS 15/9-15

DST NO	1			2		
Tested interval	2373 - 2891 m RKB			2820 - 2862 m RKB		
Perforated interval	2880 - 2890 m RKB			2830 - 2850 m RKB		
Av. shale content	0.30			0.10		
Av. porosity	0.14			0.18		
Av. water saturation	0.50			0.38		
FLOW DATA						
Choke size (1/64")	32	48	64	28	44	56
Gas rate ($10^3 Sm^3/d$)	298	418	469	294	439	509
Cond. rate (Sm^3/d)	155	177	184	119	213	203
GOR (Sm^3/Sm^3)	1922	2366	2551	2478	2057	2507
BHFP (bars)	257	217	197	288	255	233
PRELIMINARY BUILD-UP ANALYSIS						
Reservoir temp (°C)	107			106		
Reservoir press. (bars)	338.7			338.5		
kh (md.m)	82			126		
k (md)	4.5			3.0		
S	3			3.7		

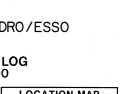
statoil /NORSK HYDRO/ESSO

15/9-15

COMPLETION LOG
Scale 1:500

COORDINATES: 58° 18' 07,45" N
01° 55' 19,67" E
K.B.: 25m
WATER DEPTH: 83m
TOTAL DEPTH: 3200m
DEEPEST FORM. PEN.: TRIASSIC
SPUD DATE: 28th May 1982
RIG RELEASE DATE: 1st Aug. 1982
WELL STATUS: Plugged and abandoned
RIG: ROSS RIG
CONTRACTOR: ROSS DRILLING CO.
GEOLOGISTS: P. CLINT, R. SUNNARVIK, H. NYGARD, K. PEDERSEN
PREPARED BY: L. JENSEN, J.M. ØSTBY, K. SKÅR

LOCATION MAP



DATE: 31rst JANUARY 1983

CASING DATA:	FORMATION INTEGR./ LEAK OFF TESTS
30" at 171.5m	
20" at 498m	1.65 g/cc
13 3/8" at 1178m	1.68 g/cc
9 5/8" at 2463m	1.87 g/cc
7" at 3199m	(EQUIV. MUD WEIGHT)

VELOCITY SURVEY: 20 checkshots with levels from 175 - 3200m RKB by Schlumberger

LOGS RUN (m RKB)

ISF/BHC-GR	LDT-GR	DLL/MSFL-GR	HDT	CST	RFT	CBL/VDL-GR
RUN 1: 172 - 512 m RUN 2: 498 - 1191 m	RUN 1: 498 - 1191m	RUN 1: 2800-2950m	RUN 1: 2463-3202m	RUN 1: 1287-2464m RUN 2: 2734-3189 m RUN 3: 2670-3189m RUN 4: 2701-3194m	RUN 1: 2823-3090m	RUN 1: 100-1172 m RUN 2: 1050-2463m RUN 3: 2300-3139m
ISF/BHC/MSFL-GR	**LDT/CNL-GR**		**GEODIP**			
RUN 1: 1178-2471m RUN 2: 2463-2879m RUN 3: 2800-3201.5m	RUN 1: 1178-2470m RUN 2: 2463-3202m		RUN 1: 2800-2950m			

LITHOLOGIC SYMBOLS

SAND SANDSTONE	LIMESTONE	ANHYDRITE	FORAMS	PYRITE	MICA
SILT SILTSTONE	CHALK	COAL LIGNITE	WOOD FRAGS	GLAUCONITE	STYLOLITES
CLAY CLAYSTONE	DOLOMITE	TUFF	FOSSILS, GEN'L	CHERT	BURROWS
SHALE	MARL	SALT	SHELL FRAGS	SIDERITE	FRACTURES

SHOW OR STAIN — HYDROCARBON CUT — FLUORESCENCE — GAS SHOW

SIDEWALL CORES: REC. / REC. W/SHOW / NO REC. — CORES: CORE NO. — DST — CASING SHOE/LINER

SUMMARY OF DRILLSTEM TESTS:

DST No.1 (2880-2890M RKB)

THE WELL PRODUCED GAS AND CONDENSATE MULTIPLE FLOW

CHOKE MM(64TH)	GAS RATE SCMD	GAS GRAVITY	COND. M3/D	COND. GRAVITY	CO2 %	BS+W %
13(34)	295 500	0.718	151	0.760	0.2	1.5
19(48)	417800	0.718	173	0.770	1.0	2.0
25(64)	467000	0.736	188	0.770	0.5	2.0

DST No.2 (2830-2850M RKB)

THE WELL PRODUCED GAS AND CONDENSATE MULTIPLE FLOW

CHOKE MM(64TH)	GAS RATE SCMD	GAS GRAV./SG	COND. M3/D	COND. GRAV./SG	CO2 %	BS+W %
11(28)	293900	0.710	124	0.757	0.5	2.0
17(44)	441700	0.710	212	0.767	0.5	1.5
22(56)	510 800	0.740	202	0.767	0.5	2.0

FOR RFT RESULTS SEE THE COMPLETION REPORT

ROP(m/HR)
WOB(TON)
RPM
BIT & CSG
LITHOLOGY
SHOW
Stain
Fluor
Cut
GAS
Total Gas
C1
C2
C3
C4
C5
LITH. INTER.
LITH. DESCRIP.
LITH. TOPS
DATES
REMARKS
MUD PROP.
COMPANY: STATOIL
WELL: 15/9-15
LOGGED BY: NORSK PETROLEUM SERVICES A/S
SPUD IN: 19:30, MAY 28, 1982
AIR GAP: 25m
WATER DEPTH: 83m
ROP(mr/hr)
80 60 40 20
WOB(m.ton)
2 4 6 8
RPM
160 120 80 40
TOTAL GAS (%)
1 2 3 4 5
C1 (PPM x 1000)
2 4 6 8 10 12 14
C2,C3,C4,C5 (PPM x 1000)
0.4 0.8 1.2 1.6 2.0 2.4 2.8
30" CSG
29/5
CLY: GRY,SFT.SOL,SL.SLTY, CALC.
SD: QTZ,CLR,OCC.MLKY, OCC.GRN,OCC.YEL,RND MOD.SRTD.
TR: SHELL FRAG,MET.ROCK SLTST.
CLY: A/A
SD: A/A
200
CLY: GRY,SFT,SLTY,CALC.
SD: QTZ,CLR,OCC.WH,SUB-RND-ANG,MOD.SRTD.
CLY: A/A
SD: A/A
TR: LIGN,BRN.SFT,& BLK.HD
SD: A/A,P.SORTD,F-CRSE.
CLY: LT.GRY,SFT,SLTY,CALC.
250
CLY: A/A
TR: LIGN,COAL,PYR.
CLY: A/A
SD: MOD.SRTD,MED.GRND, MOD.RND.
TR.LITHIC FRAGS
31/5
300
DEPTH CORR
CLY: LT.GY,SFT.STKY,CALC
SD: CLR.QTZ,CRSE.GRN,SUB RND,SRTD.
COMPUTER LAG ERROR
SD: OCC.WH,SUB.ANG-SUB. RND.A/A
350
SD: CRSE-FINE GRN,ANG-SUB ANG,MOD.SRTD.A/A
PV : 6
YP : 31
CLY: LT.GY,SFT,STKY,SLTY, CALC.
TR.SD.

WELL: 15/9-15 LOGGED BY NORSK PETROLEUM SERVICES