SIMON PETROLEUM TECHNOLOGY WELL: 30/9-2

Print: 4/96 H	Units: (M) F	Top	Bottom	Scale	TD
Length: 38 FT	Initials: [illegible]	118	2831	1:500	2831

DIGITAL WIRELINE LOGS PACKAGE
1994
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SIMON PETROLEUM TECHNOLOGY

COMPLETION LOG

COMPLETION-Ø

H

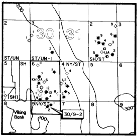
Norsk Hydro
Bergen - Norway

Completion log
Scale 1:500

Well: 30/9-2

28 FEB 1984

Location map



Scale: 1:1.000.000

Coordinates:	60° 27' 53.00" N 02° 49' 13.03" E
Elevation K B:	25m
Water Depth:	129m
Total Depth (Driller):	2830m
Total Depth (Logger):	2831m
Formation at Total Depth:	Drake Fm.

Country:	Norway
Licence:	079
Owners:	Norsk Hydro / Statoil / Saga
Field:	Oseberg
Date Spudded:	April 1, 1983
Reached Total Depth:	May 28, 1983
Completed:	July 12, 1983
Well Status:	Temporary abandoned with oil discovery in the Brent Group.
Rig:	Nortrym
Contractor:	Golar Nor.
Mudlogging Co:	The Analysts
Wireline Logging Co:	Dresser Atlas
Geologists:	K.L. Kalgraff, P.A. Midtkandal, J. Godvik, O. Giskeödegaard, L. Lømo, K.O. Häger.
Prepared by:	J.H. Skogen, P.A. Midtkandal, O. Giskeødegaard, J. Godvik.
Date:	January 6, 1984

Casing Records:

30"	at	218m
20"	at	901m
13 3/8"	at	1482.5m (see comments)
9 5/8"	at	2810m
7" liner at		

Comments: The 13 3/8" casing was set at 1680 m and 12 1/4" hole drilled to 2203m. The pipe got stuck at 2170m and the well was sidetracked from 1485,5m through window in 13 3/8" casing.

Logs Run

DIFL/LSBHC/GR/SP	CDL/CNL	HDT	FMT	SPECTRA LOG	CBL/VDL
1. 218 - 913m GR to seabed 2. 900.5 - 1700m 3. 1482.5 - 2830m	CDL/CAL/CR 1. 900.5 - 1689m CDL/CNL/CAL/GR 2. 1479.5 - 2828.4m	1. 1900 - 2826m	1. 2305.5 - 2765m 2. 2728m 3. 2755m 4. 2639.5 - 2690m	1. 2550 - 2790m	1. 1250 - 1680m
		SWC		TEMP. LOG	VELOCITY SURV.
		1. 2230 - 2825.5m		1. 930 - 1250m	1. 1268 - 2830m

Legend

- CONGLOMERATE
- SAND/SANDSTONE
- SILT/SILTSTONE
- CLAY
- CLAYSTONE
- SHALE
- LIMESTONE
- DOLOMITE
- DOLOMITIC LIMESTONE
- CALCAREOUS DOLOMITE
- CHALK
- MARL/MARLSTONE
- COAL/LIGNITE
- ANHYDRITE
- SALT
- GYPSUM
- TUFF
- IGNEOUS EXTR/INTR
- SANDY VERY / SANDY / SANDY SLIGHTLY
- SILTY VERY / SILTY / SILTY SLIGHTLY
- ARGILLACEOUS

C Carbonaceous mat
△ Chert
✳ Glauconite
M Mica
□ Pyrite
Macrofossils
Macrofossils frag
Microfossils

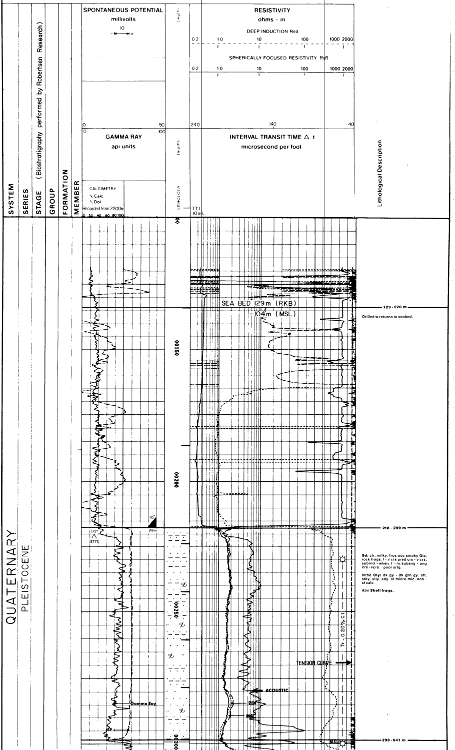
Hydrocarbon Shows
◔ Oilstain
◑ Fluorescence
◕ Visible cut
◔ Fluorescence cut
○ Gas shows

Casing Shoe
Deviation 2
Dipmeter results 3°
One way time from Velocity log (depth m K B) e.g 3603 m 1450 s

Core Interval
(No recovery)
Side Wall Core →
(No recovery) ⇾

Perforated Interval
Cement Plug Interval

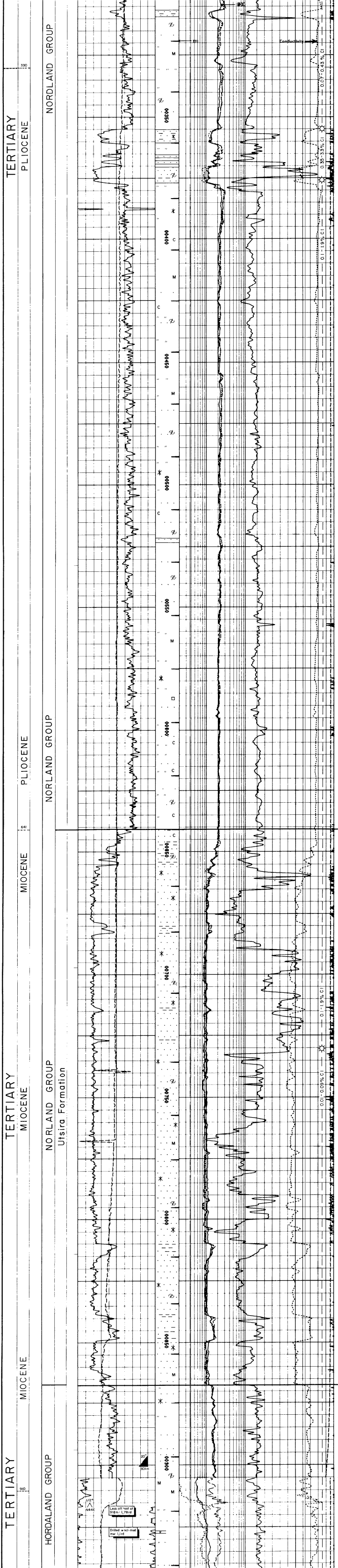
D S T
Through casing
Open hole
Re - Run
① RFT/FIT



Sd: clr. milky. fros occ smoky Qtz. rock frags. f - v crs pred crs - v crs. subrnd - when f - m.subang - ang crs - vcrs. poor srtg.

Intbd **Cly:** dk gy - dk grn gy. sft. stky. slty. sdy. sl micro-mic. non - sl calc.

Abn **Shell frags.**



Cly: dk gy - dk grn gy, sft, stky, slty, loc sdy, sl micro-mic, non - sl calc.

Bds and strgs of **Sd and Sst:**

Sd: clr, milky, fros Qtz, f - v crs, subrnd - subang, occ rnd and ang, poor srtg.

Sst: clr, fros Qtz, f, mod hd - hd, subang, silic cmt, gd srtg, non vis por.

Tr **Glau, Shell frags.**

Tr **Lig:** blk, mod hd - hd, blky - plty, loc slty, mica, occ pyr.

641 - 867 m

Sd: clr - occ milky, fros Qtz, vf - v crs, pred m - crs, subrnd - rnd, occ subang.

Strgs **Cly:** dk gy - dk grn gy, sft, sl stky, slty, non - sl calc.

Abn **Glau:** grn blk, f - crs.

Tr **Mica, Shell frags.**

867 - 1269 m

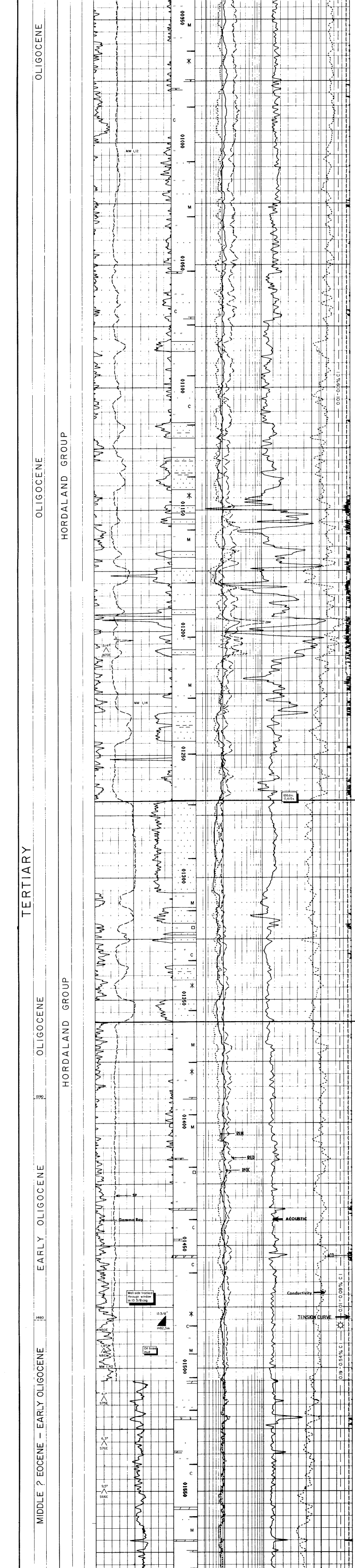
Cly Clyst: olv gy, bcm pred dusky yel brn, firm, in pt sft, blky, sl micro-mic, loc glau and carb, non calc, occ slty - loc grdg **Slst.**

Bds of **Sd:** clr - occ milky Qtz, vf - v crs, subrnd - ang, poor - loc mod srtg.

Strgs **Sst:** clr Qtz, vf - f, mod hd, subang, silic cmt, good srtg, non vis por.

Strgs **Lst:** wh, pale yel brn, hd, blky - plty, in pt arg, micro xln.

Strgs **Dol:** lt olv gy, hd, blky, arg, micro - xln.



1269 - 1359 m

Sd: clr, fros Qtz, vf - v crs, pred m - crs, subrnd, poor srtg.

Intbd **Clyst:** dusky yel brn, firm, blky, in pt stky, slty - v slty, sl micro-mic, rr carb, non calc.

Tr **Glau, Pyr.**

1359 - 2014 m

Clyst: dusky yel brn, tr brn blk, olv gy - dk grn gy, firm, blky, in pt v slty, sl micro mic, tr carb, non - sl calc.

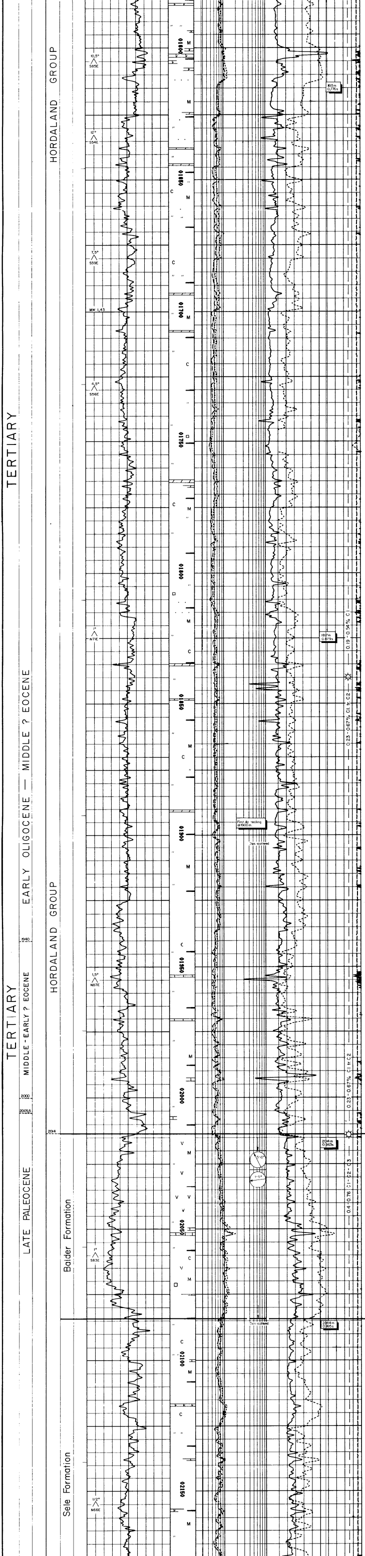
Strgs **Sd:** clr, occ milky, fros Qtz, vf - crs, subrnd, poor - loc well srtd

Strgs **Lst:** wh, lt gy, sft - hd, blky, loc sl arg, micro-xln.

Strgs **Dol:** pale - dk yel brn, firm - hd, loc sucr, arg, micro-xln.

Logs from sidetracked hole

Clyst: pred olv gy - dk grn gy, else a/a.



Clyst: dk grn gy, tr dusky yel brn - brn blk.

Clyst: dk grn gy, grn blk, firm, blky, occ subfis, sl micro - mic, rr carb, occ tr pyr, non calc.

Clyst: gen a/a, dk grn gy, minor dusky yel brn, loc slty - vf sdy.

Clyst: mod brn, firm blky, non - v sl slty, non - sl calc.

2014 - 2084 m

Clyst: dk grn gy - grn blk, bcm pred dusky yel brn, firm - mod hd, blky - occ subfis, sl micro-mic, loc sl carb and slty, non calc.

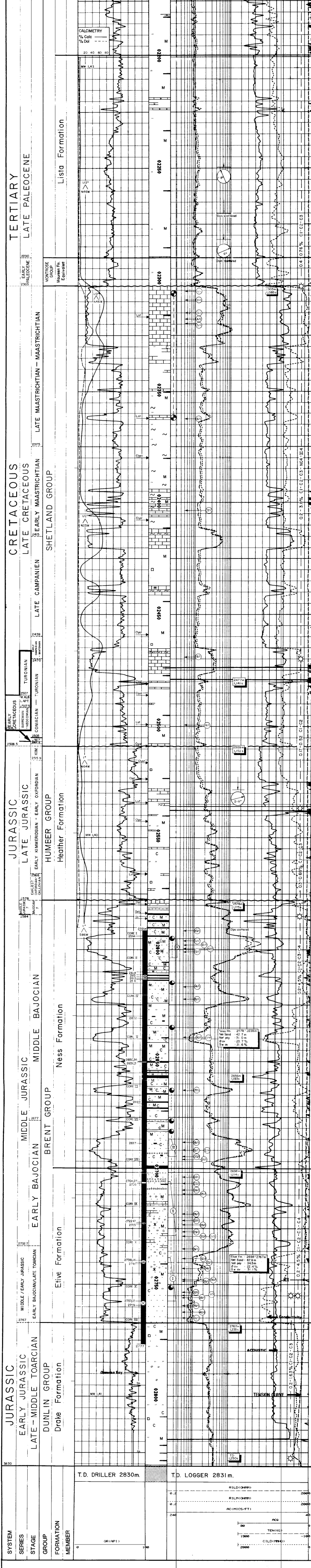
Tr **Tuff Clyst:** m lt gy - lt bl gy, firm, blky, dk spec, non calc.

Strgs **Lst Dol:** v lt gy, pale - dk yel brn, mod hd - hd, blky, com arg, micro-xln.

2084 - 2199 m

Clyst: dk gy - m dk gy, also dk grn gy, olv blk, gy brn - mod brn, firm - mod hd, blky, micro-mic, in pt slty, non calc.

Strgs **Lst Dol:** v lt gy, pale - dk yel brn, firm - mod hd, blky, arg, micro-xln.



2199 - 2290 m

Clyst: m gy - dk gy, brn blk, firm - mod hd, blky - occ subfis, sl micro-mic, sl slty, non - sl calc.

Strgs **Lst:** v lt gy - wh, firm - hd, arg, dol, micro-xln, loc grdg **Dol.**

2290 - 2303 m

Clyst: brn blk - olv blk, dk gy - m dk gy, firm - mod hd, blky - loc subfis, sl slty, sl micromic, non - sl calc.

2303 - 2508 m

Lst: wh - pale yel brn, mod hd - firm, occ sft, blky, micro-xln, occ xln, in pt sl arg, **pale yel flu, weak - mod strong v slow Strmg wh yel flu cut non vis cut, mod wh flu resd.**

Clyst: dk grn gy - grn blk, firm, occ mod hd, blky, occ subfis, sl micro-mic, non - sl calc.

Clyst: bcm olv blk - dk gy, else a/a.

Clyst: olv gy - olv blk, firm, occ sft, sl slty, sl micro-mic, v calc grdg **Marl.**

Lst: wh - lt gy - pale yel brn, mod hd - firm, occ sft, blky, micro-xln, occ xln, in pt sl arg, no show.

Clyst: olv gy - grn blk, bcm dk gy, firm, occ mod hd, loc sft, stky, blky, sl micro-mic, sl - non calc.

Tr **Pyr,** tr **Glau.**

Lst: a/a.

Lst: a/a.

Clyst: m dk gy - dk gy, tr dk grn gy, firm - mod hd, loc sft, blky, in pt subfis, sl micro-mic, non - sl calc.

2508,5 - 2578 m

Clyst: m dk gy - dk gy - gy blk, firm - mod hd, loc sft, blky , occ subfis, sl micro-mic, non - sl calc.

Lst: v lt gy - lt gy, pale yel brn, firm, occ hd, blky, micro-xln, dol, in pt arg.

Clyst: m dk gy - dk gy - gy blk, in pt bcm lxn blk, firm - subfis - blky, occ fis, slty, micro-mic, occ sl carb, non calc.

Tr Pyr.

2578 - 2698 m

Sst: lt - mod brn - brn blk stn, clr - milky Qtz g, vf - m, pred f, subang - subrnd, mod - well cmtd, silic cmt, tr - v carb, tr - v mica, mod - well srtd, mod - gd vis por, **strong petroliferous odour, lt - mod brn - brn blk oil stn, tr - 100% bright yel flu, strmg strong, inst - fast bl wh flu cut, wh bl flu resd, non - lt yel vis resd.**

Strgs **Coal:** blk, mod hd - hd, blky, brit - occ plty - fibrous, occ sl slty, shiny.

Intbds **Sh:** m dk gy - dk gy - gy blk, hd, fis, micro-mic tr carb - carb, slty - v slty, non calc.

For details on cores see core descriptions below.

Sst: lt brn - m brn stn, occ m gy - olv gy, vf - m, pred f, subang - subrnd, mica, tr carb mat, well cmtd, silic cmt, well srtd, non - fair vis por, **weak - strong petroliferous odour, lt brn - m brn stn, tr - 100% bright yel - lt brn flu, mod strong - strong, inst - fast strmg bl wh flu cut, bl wh - lt brn flu resd, non - lt brn vis resd.**

2698 - 2767 m

Sst: lt brn - mod brn stn, vf - m, occ vf - pbly, pred m, subang - subrnd, tr - v mica, tr carb, well cmtd, silic cmt, in pt calc cmt, poor - pred well srtd, fair - gd vis por, **mod - strong petroliferous odour, lt brn - mod brn oil stn 50–100% pale - bright yel - lt brn flu, else a a.**

FLUID/WATER CONTACT
at 2737 m RKB

Rr **Glau.**

Sst: mod brn - dk brn, bcm, m dk gy - dk gy, vf - m, pred m, subang - subrnd, tr - v mica, tr carb, mod - well srtd, fair - gd vis por, **non - strong petroliferous odour, lt brn - mod brn pos resd oil, rr - 30% pale yel wh flu, mod strong inst - fast streaming, bl wh - lt brn flu cut, pale yel - lt brn flu resd, non - lt brn vis resd.**

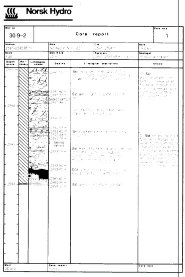
2767 - 2831 m

Sh: brn blk, v hd, occ firm - mod hd, subfis - fis micro-mic, tr pyr, rr tr carb, occ slty, in pt v slty grdg **Slst,** loc v sdy grdg vf **Sst,** non calc.

Sh: brn blk, loc dusky yel brn, loc grn gy, firm - hd, pred mod hd, subfis - fis, loc v slty, grdg **Slst,** micro-mic, micro-pyr, carb, non calc.

2831 m (TD)

CORE DESCRIPTIONS


Norsk Hydro

Well no 30/9–2 | Core report | Core no 1
Interval [illegible] | Area Norwegian North Sea | Cut [illegible] | Date [illegible]
Scale 1:25 | Well R.K.B 25 m | Recovery [illegible] | Geologist [illegible]

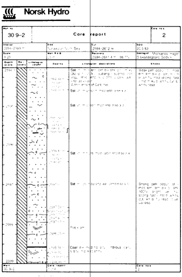
Sst [illegible]

Coal [illegible]

Sst [illegible]

Shows: On Sst [illegible]

Well 30/9–2 | Core report | Core no 1


Norsk Hydro

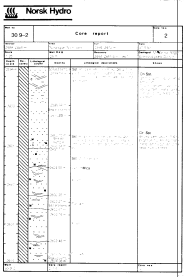
Well no 30 9–2 | Core report | Core no 2
Interval [illegible] | Area Norwegian North Sea | Cut [illegible] | Date [illegible]
Scale 1:25 | Well R.K.B 25 m | Recovery [illegible] | Geologist [illegible]

Sst [illegible]

Coal [illegible]

Shows: Strong petr odour [illegible]

Well 30/9–2 | Core report | Core no 2


Norsk Hydro

Well no 30 9–2 | Core report | Core no 2
Interval [illegible] | Area Norwegian North Sea | Cut [illegible] | Date [illegible]
Scale 1:25 | Well R.K.B 25 m | Recovery [illegible] | Geologist [illegible]

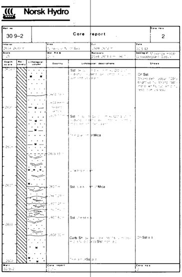
Sst [illegible]

Mica

Shows: On Sst [illegible]

On Sst [illegible]

Well 30/9–2 | Core report | Core no 2


Norsk Hydro

Well no 30 9–2 | Core report | Core no 2
Interval [illegible] | Area Norwegian North Sea | Cut [illegible] | Date [illegible]
Scale 1:25 | Well R.K.B 25 m | Recovery [illegible] | Geologist [illegible]

Sst [illegible]

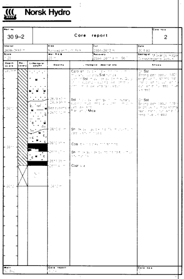
Mica

Carb Sh [illegible]

Shows: On Sst [illegible]

On Sst a/a

Well 30/9–2 | Core report | Core no 2


Norsk Hydro

Well no 30 9–2 | Core report | Core no 2
Interval [illegible] | Area Norwegian North Sea | Cut [illegible] | Date [illegible]
Scale 1:25 | Well R.K.B 25 m | Recovery [illegible] | Geologist [illegible]

Carb [illegible]

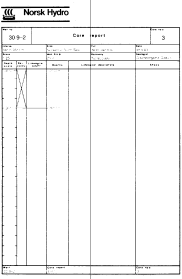
Sst [illegible]

Mica

Coal [illegible]

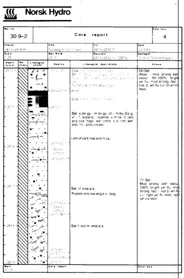
Shows: On Sst [illegible]

Well 30/9–2 | Core report | Core no 2


Norsk Hydro

Well no 30 9–2 | Core report | Core no 3
Interval [illegible] | Area Norwegian North Sea | Cut [illegible] | Date [illegible]
Scale 1:25 | Well R.K.B 25 m | Recovery [illegible] | Geologist [illegible]

Well 30/9–2 | Core report | Core no 3


Norsk Hydro

Well no 30 9–2 | Core report | Core no 4
Interval 2614–2619 m | Area Norwegian North Sea | Cut 2614–2632 m | Date 22.5.83
Scale 1:25 | Well R.K.B 25 m | Recovery 2614–2632 m 100% | Geologist Godvik/Giskeødegaard

Coal [illegible]

Root

Coal [illegible]

Sst: lt olv gy - m dk gy, clr - milky Qtz g, vf - f, subang - subrnd, v mica, tr carb and coal frags, well cmtd, silic cmt, well srtd, no - poor vis por.

Lam of carb mat and mica.

Sst: vf, else a/a.

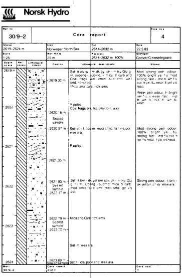
Ripples and low angle x - bdg.

Sst: f, occ m, else a/a.

Shows: On Sst: Weak - mod strong petr odour, 90–100% bright yel flu, mod strong, fast - inst, bl wh flu cut, bl wh flu resd.

On Sst: Mod strong petr odour, 100% bright yel flu, mod strong, fast - inst bl wh flu cut, light yel flu resd, light yel vis resd.

Well 30/9–2 | Core report | Core no 4


Norsk Hydro

Well no 30/9–2 | Core report | Core no 4
Interval 2619–2624 m | Area Norwegian North Sea | Cut 2614–2632 m | Date 22.5.83
Scale 1:25 | Well R.K.B 25 m | Recovery 2614–2632 m, 100% | Geologist Godvik/Giskeødegaard

2619.30 m – Sst: lt olv gy - m dk gy, clr - milky Qtz g, vf, subang - subrnd, v mica, tr carb and Coal frags, well cmtd, silic cmt, well srtd, no vis por. Mica and carb rich lams.

Ripples.

Coal frags blk, hd, blky, brit, wxy.

2620.16 m, Sealed sample, 2620.57 m – Sst: vf - f, occ m, mod cmtd, fair vis por, else a/a.

Ripples.

2621.35 m

2621.93 m, Sealed sample, 2622.17 m – Sst: lt brn - dk yel brn stn, clr - milky Qtz g, f - m, subang - subrnd, mica, tr carb, mod cmtd, silic cmt, well srtd, gd vis por.

2622.79 m, Sealed sample, 2623.10 m – Mica and Carb rich lams.

Sst: m, else a/a.

2623.89 m, Sealed sample – Sst: f - crs, poor srtd, else a/a.

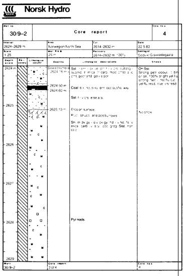
Shows: Mod strong petr odour, 100% bright yel flu, mod strong, fast - inst bl wh flu cut, lt yel flu resd, lt yel vis resd.

Weak petr odour, tr bright yel flu, v weak fast - inst bl wh flu cut, bl wh flu resd.

Mod strong petr odour, 100% bright yel flu, strong, fast - inst flu cut, lt yel flu resd, lt yel vis resd.

Strong petr odour, lt brn - dk yel brn oil str, else a/a.

Well 30/9–2 | Core report 2 of 4 | Core no 4


Norsk Hydro

Well no 30/9–2 | Core report | Core no 4
Interval 2624–2629 m | Area Norwegian North Sea | Cut 2614–2632 m | Date 22.5.83
Scale 1:25 | Well R.K.B 25 m | Recovery 2614–2632 m, 100% | Geologist Godvik/Giskeødegaard

Sealed sample, 2624.16 m – Sst: [illegible] subang - subrnd, tr mica, tr carb, mod cmtd, silic cmt, poor srtd, gd vis por.

2624.50 m, 2624.60 m – Coal: blk, hd, blky, brit, occ subfis, wxy.

Sst: f - v crs, else a/a.

2625.10 m – Erosion surface.

Root structs and pos burrows.

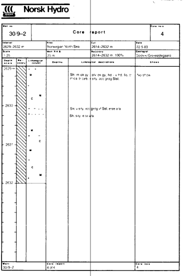
Sh: m dk gy - olv dk gy, hd - v hd, fis, v mica, carb, v slty, occ grdg Slst, non calc.

Pyr nods.

Shows: On Sst: Strong petr odour, lt brn oil str, 100% bright yel flu, strong, fast - inst flu cut, yel flu resd, lt yel vis resd.

No show.

Well 30/9–2 | Core report 3 of 4 | Core no 4


Norsk Hydro

Well no 30/9–2 | Core report | Core no 4
Interval 2629–2632 m | Area Norwegian North Sea | Cut 2614–2632 m | Date 22.5.83
Scale 1:25 | Well R.K.B 25 m | Recovery 2614–2632 m, 100% | Geologist Godvik/Giskeødegaard

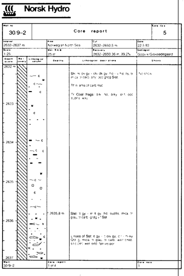
Sh: m dk gy - olv dk gy, hd - v hd, fis, tr mica, tr carb, v slty, occ grdg Slst.

Sh: v slty, occ grdg vf Sst, else a/a.

Sh: slty, else a/a.

Shows: No show

Well 30/9–2 | Core report 4 of 4 | Core no 4


Norsk Hydro

Well no 30/9–2 | Core report | Core no 5
Interval 2632–2637 m | Area Norwegian North Sea | Cut 2632–2650,5 m | Date 22.5.83
Scale 1:25 | Well R.K.B 25 m | Recovery 2632–2650.36 m, 99.2% | Geologist Godvik/Giskeødegaard

Sh: m dk gy - olv dk gy, hd - v hd, fis, tr mica, tr carb, slty, occ grdg Slst.

Thin lams of carb mat.

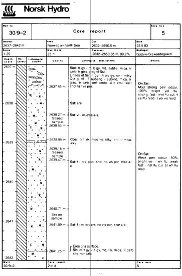
Tr Coal frags: blk, hd, blky, brit, occ subfis, wxy.

2635,8 m – Slst: lt gy - m lt gy, hd, subfis, mica, tr glau, tr carb, grdg vf Sst.

Lnses of Sst: lt gy - lt olv gy, clr - milky Qtz g, mica, tr glau, tr carb, well cmtd, silic cmt, well srtd, fair vis por.

Shows: No show

Well 30/9–2 | Core report 1 of 4 | Core no 5


Norsk Hydro

Well no 30/9–2 | Core report | Core no 5
Interval 2637–2642 m | Area Norwegian North Sea | Cut 2632–2650.5 m | Date 22.5.83
Scale 1:25 | Well R.K.B 25 m | Recovery 2632–2650.36 m, 99.2% | Geologist Godvik/Giskeødegaard

Slst: lt gy - m lt gy, hd, subfis, mica, tr carb, tr glau, grdg vf Sst.
Lnses of Sst: lt gy - lt olv gy, clr - milky Qtz g, vf - f, subang - subrnd, mica, tr glau, tr carb, well cmtd, silic cmt, well srtd, fair vis por.

2637.55 m

Sst: a/a.

2638.27 m, Sealed sample, 2638.55 m – Sst: vf - m, else a/a.

2638.95 m – Coal: brn blk, mod hd, blky, brit, tr mica, wxy.

2639.16 m, Sealed sample, 2639.47 m – Sst: f - crs, poor srtd, no vis por, else a/a.

2640.71 m, Sealed sample, 2641.09 m – Sst: f - m, occ crs, no vis por, else a/a.

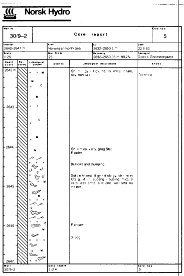
2641.75 m – Erosional surface. Sh: m lt gy - lt gy, hd, fis, mica, tr carb, slty, noncalc.

Shows: On Sst: Mod strong petr odour, 100% bright yel flu, strong, fast - inst flu cut, lt yel flu resd, lt yel vis resd.

On Sst: Weak petr odour, 50% bright yel - wh flu, weak fast - inst flu cut, bl wh flu resd.

Well 30/9–2 | Core report 2 of 4 | Core no 5

Norsk Hydro



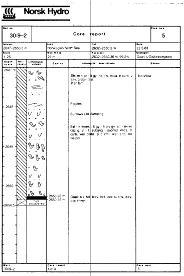
Core report

Well no 30/9–2	Core no. 5		
Interval 2642–2647 m	Area Norwegian North Sea	Cut 2632–2650.5 m	Date 22.5.83
Scale 1:25	Well R.K.B 25	Recovery 2632–2650.36 m, 99.2%	Geologist Godvik/Giskeødegaard

Depths	Lithological descriptions	Shows
	Sh: m lt gy – lt gy, hd, fis, mica, tr carb, silty, non calc	No show
	Sh: v mica, v silty, grdg Slst. Ripples	
	Burrows and slumping	
	Sst (in lnses): lt gy – lt olv gy, clr – milky Qtz g, vf – f, subang – subrnd, mica, tr carb, well cmtd, sil c cmt, well srtd, no vis por	
	Plan lam	
	X-bdg.	

Well 30/9–2 · Core report 3 of 4 · Core no. 5

Norsk Hydro



Core report

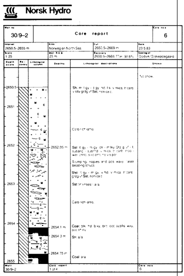
Well no 30/9–2	Core no. 5		
Interval 2647–2650.5 m	Area Norwegian North Sea	Cut 2632–2650.5 m	Date 22.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2632–2650.36 m, 99.2%	Geologist Godvik/Giskeødegaard

Depths	Lithological descriptions	Shows
	Sh: m lt gy – lt gy, hd, fis, mica, tr carb, v silty, grdg vf Sst. Plan lam.	No show
	Ripples	
	Burrows and slumping.	
	Sst (in lnses): lt gy – lt olv gy, clr – milky Qtz g, vf – f, subang – subrnd, mica, tr carb, well cmtd, sil c cmt, well srtd, no vis por	
2650.26 m 2650.36 m	Coal: blk, hd, blky, brit, occ subfis, wxy, occ shiny.	

Not recovered

Well 30/9–2 · Core report 4 of 4 · Core no. 5

Norsk Hydro



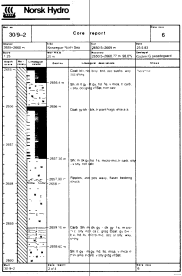
Core report

Well no 30/9–2	Core no. 6		
Interval 2650.5–2655 m	Area Norwegian North Sea	Cut 2650.5–2669 m	Date 23.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2650.5–2668.77 m, 98.8%	Geologist Godvik/Giskeødegaard

Depths	Lithological descriptions	Shows
		No show.
	Sh: m lt gy – lt gy, hd, fis, v mica, tr carb, v silty grdg vf Sst, non calc.	
	Carb rich lams	
2652.05 m	Sst: lt gy – m gy, clr – milky Qtz g, vf – f, subang – subrnd, v mica, tr carb, mod – well cmtd, sil c cmt, no vis por	
	Slumping, ripples and pos wavy, flaser bedding strucs	
	Slst: lt gy – m gy, v hd, v mica, tr carb, grdg vf Sst, non calc	
	Sst (in lnses): a/a.	
	Carb rich lams.	
2654.1 m	Coal: blk, hd, blky, brit, occ subfis, wxy, occ shiny	
2654.3 m	Sh: a/a	
2654.75 m	Coal: a/a	

Well 30/9–2 · Core report 1 of 4 · Core no. 6

Norsk Hydro



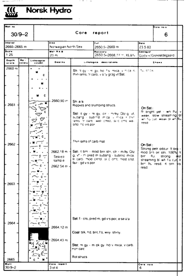
Core report

Well no 30/9–2	Core no. 6		
Interval 2655–2660 m	Area Norwegian North Sea	Cut 2650.5–2669 m	Date 23.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2650.5–2668.77 m, 98.8%	Geologist Godvik/Giskeødegaard

Depths	Lithological descriptions	Shows
	Coal: blk, hd, blky, brit, occ subfis, wxy, occ shiny.	No show
2655.4 m	Sh: m lt gy – lt gy, hd, fis, v mica, tr carb, v silty, occ grdg vf Sst, non calc	
2656 m	Coal: gy blk – blk, tr plant frags, else a/a.	
2657.36 m	Sh: m dk gy, hd, fis, micro-mic, tr carb, silty – v silty, non calc	
2657.90 m 2658 m	Ripples, and pos wavy, flaser bedding strucs	
2659.10 m	Carb Sh: m dk gy – dk gy, fis, micro-mic, silty, non calc, grdg Coal: gy blk – blk, hd, fis, micro-mic, occ sl silty, wxy, shiny.	
2659.60 m	Sh: lt gy – m gy, hd, fis, mica, v mica in thin lams, tr carb, v silty grdg vf Sst.	

Well 30/9–2 · Core report 2 of 4 · Core no. 6

Norsk Hydro



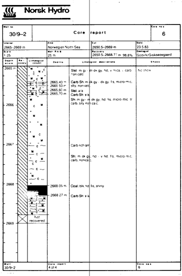
Core report

Well no 30/9–2	Core no. 6		
Interval 2660–2665 m	Area Norwegian North Sea	Cut 2650.5–2669 m	Date 23.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2650.5–2668.77 m, 35.8%	Geologist Godvik/Giskeødegaard

Depths	Lithological descriptions	Shows
	Sh: lt gy – m gy, hd, fis, mica, v mica in thin lams, tr carb, v silty grdg vf Sst.	No show
2660.90 m	Sh: a/a Ripples and slumping strucs.	
	Sst: lt gy – m gy, clr – milky Qtz g, vf, subang – subrnd, mica, v mica in thin lams, tr carb, well cmtd, sil c cmt, well srtd, no vis por	On Sst: Bright yel – wh flu, v weak, slow streaming bl wh flu cut, weak bl wh flu resd
	Thin lams of carb mat	
2662.18 m Sealed sample 2662.54 m	Sst: lt brn – mod brn stn, clr – milky Qtz g, vf – m pred m, subang – subrnd, mica, tr carb, mod cmtd, sil c cmt, mod srtd, fair – gd vis por	On Sst: Strong petr odour, lt brn – mod brn oil stn, 100% lt brn flu, strong, fast streaming bl wh flu cut, lt brn flu resd, lt brn vis resd.
	Sst: f – crs, pred m, gd vis por, else a/a	
2664.12 m	Coal: blk, hd, brit, fis, wxy, shiny.	
2664.43 m	Slst: m gy – m dk gy, hd, v mica, v carb, non calc	
	Rot strucs	

Well 30/9–2 · Core report 3 of 4 · Core no. 6

Norsk Hydro



Core report

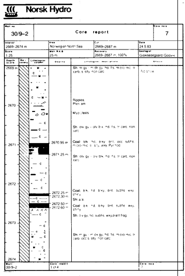
Well no 30/9–2	Core no. 6		
Interval 2665–2669 m	Area Norwegian North Sea	Cut 2650.5–2669 m	Date 23.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2650.5–2668.77 m, 98.8%	Geologist Godvik/Giskeødegaard

Depths	Lithological descriptions	Shows
	Slst: m gy – m dk gy, hd, v mica, v carb, non calc	No show
2665.40 m 2665.50 m	Carb Sh: m dk gy – dk gy, fis, micro-mic, silty, non calc.	
2665.60 m	Slst: a/a	
2665.70 m	Carb Sh: a/a	
	Sh: m gy – m dk gy, hd, fis, micro-mic, tr carb, silty, non calc.	
	Carb rich lam.	
	Sh: m dk gy, hd – v hd, fis, micro-mic, carb, non-calc.	
2668.05 m	Coal: blk, hd, fis, shiny.	
2668.27 m	Carb Sh: a/a	

Not recovered

Well 30/9–2 · Core report 4 of 4 · Core no. 6

Norsk Hydro



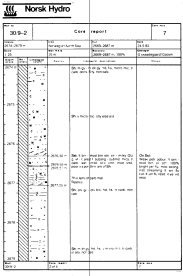
Core report

Well no 30/9–2	Core no. 7		
Interval 2669–2674 m	Area Norwegian North Sea	Cut 2669–2687 m	Date 24.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2669–2687 m, 100%	Geologist Giskeødegaard/Godvik

Depths	Lithological descriptions	Shows
	Sh: m gy – m dk gy, hd, fis, micro-mic, tr carb, sl silty, non calc	No show
	Ripples. Plan lam	
	Mud clasts	
	Sh: olv gy – olv blk, hd, fis, tr carb, non calc	
2670.95 m	Coal: blk, hd, blky, brit, occ subfis, micro-mic, sl silty, wxy, Pyr nod	
2671.25 m	Sh: olv gy – olv blk, hd, fis, tr carb, non calc	
2672.25 m	Coal: blk, hd, blky, brit, subfis, wxy, shiny	
2672.30 m	Sh: a/a.	
2672.50 m	Coal: blk, hd, blky, brit, subfis, wxy, shiny	
2672.60 m	Sh: olv gy, hd, subfis, wxy, plant frag	
	Sh: m gy – m dk gy, hd, fis, micro-mic, tr carb, occ sl silty, non calc	

Well 30/9–2 · Core report 1 of 4 · Core no. 7

Norsk Hydro



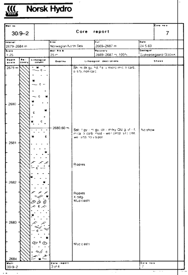
Core report

Well no 30/9–2	Core no. 7		
Interval 2674–2679 m	Area Norwegian North Sea	Cut 2669–2687 m	Date 24.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2669–2687 m, 100%	Geologist Giskeødegaard/Godvik

Depths	Lithological descriptions	Shows
	Sh: m gy – m dk gy, hd, fis, micro-mic, tr carb, occ sl silty, non calc.	
	Sh: v micro-mic, silty else a/a	
2676.30 m 2676.55 m 2676.57 m	Sst: lt brn – mod brn stn, clr – milky Qtz g, vf – f, pred f, subang – subrnd, mica, tr carb, well cmtd, sil c cmt, mod srtd, poor vis por, thin lam of Sh.	On Sst: Weak petr odour, lt brn – mod brn oil stn, 100% bright yel flu, mod strong, inst streaming lt wh flu cut, lt yel flu resd, lt yel vis resd
	Thin lams of carb mat. Ripples.	
2677.05 m	Sh: olv gy – olv blk, hd, fis, tr carb, non calc	
	Sh: m dk gy, hd, fis, v micro-mic, tr carb, sl silty, non calc	

Well 30/9–2 · Core report 2 of 4 · Core no. 7

Norsk Hydro



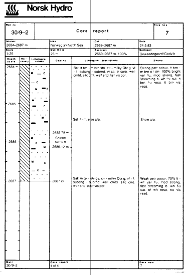
Core report

Well no 30/9–2	Core no. 7		
Interval 2679–2684 m	Area Norwegian North Sea	Cut 2669–2687 m	Date 24.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2669–2687 m, 100%	Geologist Giskeødegaard/Godvik

Depths	Lithological descriptions	Shows
	Sh: m dk gy, hd, fis, v micro-mic, tr carb, sl silty, non calc	
2680.60 m	Sst: lt gy – m gy, clr – milky Qtz g, vf – f, mica, tr carb, mod – well cmtd, sil c cmt, well srtd, no vis por	No show
	Ripples	
	Ripples X-bdg. Mud clasts	
	Mud clasts	

Well 30/9–2 · Core report 3 of 4 · Core no. 7

Norsk Hydro



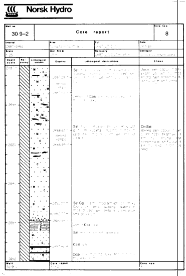
Core report

Well no 30/9–2	Core no. 7		
Interval 2684–2687 m	Area Norwegian North Sea	Cut 2669–2687 m	Date 24.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2669–2687 m, 100%	Geologist Giskeødegaard/Godvik

Depths	Lithological descriptions	Shows
	Sst: lt brn – m brn stn, clr – milky Qtz g, vf – f, subang – subrnd, mica, tr carb, well cmtd, sil c cmt, well srtd, fair vis por.	Strong petr odour, lt brn – m brn oil stn, 100% bright yel flu, mod strong, fast streaming bl wh flu cut, lt brn flu resd, lt brn vis resd.
	Sst: f – m, else a/a.	Show a/a.
2685.79 m Sealed sample 2686.12 m		
2687 m	Sst: m gy – olv gy, clr – milky Qtz g, vf – f, subang – subrnd, well cmtd, sil c cmt, well srtd, poor vis por.	Weak petr odour, 70% lt – wh yel flu, mod strong, fast streaming bl wh flu cut, bl wh resd, no vis resd.

Well 30/9–2 · Core report 4 of 4 · Core no. 7

Norsk Hydro



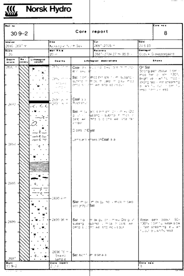
Core report

Well no 30/9–2	Core no. 8		
Interval 2687–2692	Area [illegible]	Cut [illegible]	Date [illegible]
Scale 1:25	Well R.K.B [illegible]	Recovery [illegible]	Geologist [illegible]

Depths	Lithological descriptions	Shows
[illegible] Sealed sample [illegible]	Sst: [illegible]	Weak petr odour, [illegible]
	[illegible] Coal [illegible]	
[illegible] Sealed sample [illegible]	Sst: [illegible]	On Sst Strong petr odour, [illegible]
[illegible]	Sst Cgl: [illegible]	
[illegible]	Lam of Coal a/a	
	Sst: [illegible]	
[illegible]	Coal: a/a	
	Coal: [illegible]	

Well 30/9–2 · Core report [illegible] · Core no. [illegible]

Norsk Hydro



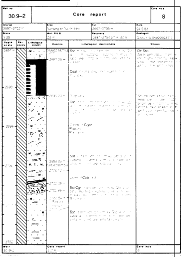
Core report

Well no 30/9–2	Core no. 8		
Interval 2692–2697 m	Area Norwegian North Sea	Cut 2687–2705 m	Date 24.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2687–2704.27 m, 95.9%	Geologist Godvik/Giskeødegaard

Depths	Lithological descriptions	Shows
[illegible]	Coal: [illegible]	On Sst Strong petr odour, lt brn – mod brn oil stn, 100% bright yel – wh flu, mod – strong fast – inst streaming bl wh flu cut, lt brn flu resd, lt brn vis resd
[illegible] Sealed sample [illegible]	Sst: [illegible]	
[illegible]	Coal: a/a Root struc	
	Sst: [illegible]	
	Clasts of Clyst	
	Lams and lnses of Coal a/a	
2695.4 m	Slst: [illegible] occ grdg vf Sst	
2695.96 m	Sst: [illegible]	Weak petr odour, 50–100% [illegible]
2696.76 m Sealed sample	Sst: [illegible] else a/a	

Well 30/9–2 · Core report 2 of 4 · Core no. 8

Norsk Hydro



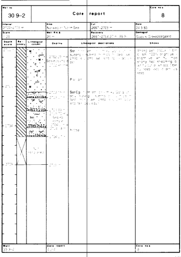
Well no 30/9–2 | Core report | Core no.s 8

Interval 2697–2702 m | Area Norwegian North Sea | Cut 2697–2705 m | Date 24.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2697–2704.27 m | Geologist Godvik/Giskeødegaard

Well 30/9-2 | Core report | Core no.s 8

Norsk Hydro



Well no 30/9–2 | Core report | Core no.s 8

Interval 2702–2705 m | Area Norwegian North Sea | Cut 2697–2705 m | Date 24.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2697–2704.27 m 95.9% | Geologist Godvik/Giskeødegaard

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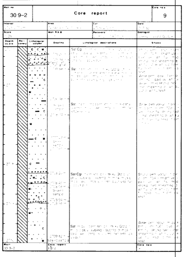
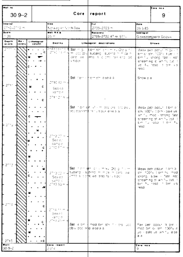
Norsk Hydro



Well no 30/9–2 | Core report | Core no.s 9

Well 30/9-2 | Core report 1 of 4 | Core no.s 9

Norsk Hydro



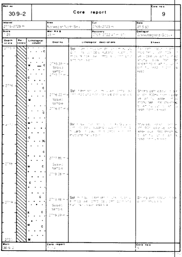
Well no 30/9–2 | Core report | Core no.s 9

Interval 2710–2715 m | Area Norwegian North Sea | Cut 2705–2723 m | Date 25.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2705–2722.47 m 97% | Geologist Giskeødegaard/Godvik

Well 30/9-2 | Core report 2 of 4 | Core no.s 9

Norsk Hydro



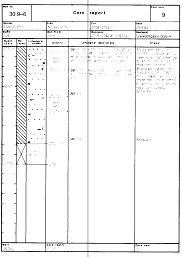
Well no 30/9–2 | Core report | Core no.s 9

Interval 2715–2720 m | Area Norwegian North Sea | Cut 2705–2723 m | Date 25.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2705–2722.47 m 97% | Geologist Giskeødegaard/Godvik

Well 30/9-2 | Core report | Core no.s 9

Norsk Hydro



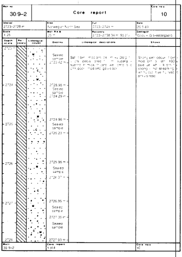
Well no 30/9–6 | Core report | Core no.s 9

Interval 2720–2723 m | Area Norwegian N. | Cut 2705–2723 m | Date 25.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2705–2722.47 m 97% | Geologist Giskeødegaard/Godvik

Well 30/9-2 | Core report | Core no.s 9

Norsk Hydro



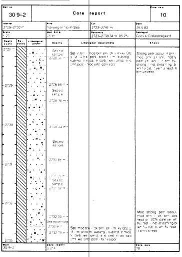
Well no 30/9–2 | Core report | Core no.s 10

Interval 2723–2728 m | Area Norwegian North Sea | Cut 2723–2741 m | Date 25.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2723–2738.34 m 85.2% | Geologist Godvik/Giskeødegaard

Well 30/9-2 | Core report 1 of 4 | Core no.s 10

Norsk Hydro



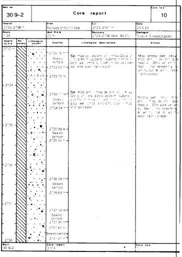
Well no 30/9–2 | Core report | Core no.s 10

Interval 2728–2733 m | Area Norwegian North Sea | Cut 2723–2741 m | Date 25.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2723–2738.34 m 85.2% | Geologist Godvik/Giskeødegaard

Well 30/9-2 | Core report 2 of 4 | Core no.s 10

Norsk Hydro



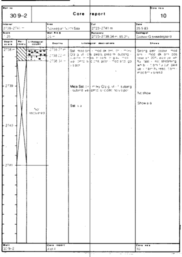
Well no 30/9–2 | Core report | Core no.s 10

Interval 2733–2738 m | Area Norwegian North Sea | Cut 2723–2741 m | Date 25.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2723–2738.34 m 85.2% | Geologist Godvik/Giskeødegaard

Well 30/9-2 | Core report 3 of 4 | Core no.s 10

Norsk Hydro



Well no 30/9–2 | Core report | Core no.s 10

Interval 2738–2741 m | Area Norwegian North Sea | Cut 2723–2741 m | Date 25.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2723–2738.34 m 85.2% | Geologist Godvik/Giskeødegaard

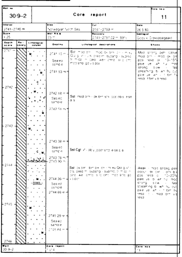
Not recovered

No show

Show a.a

Well 30/9-2 | Core report 4 of 4 | Core no.s 10

Norsk Hydro



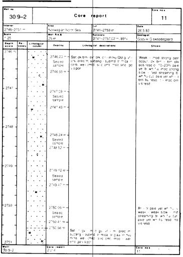
Well no 30/9–2 | Core report | Core no.s 11

Interval 2741–2746 m | Area Norwegian North Sea | Cut 2741–2759 m | Date 26.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2741–2757.02 m 89% | Geologist Godvik/Giskeødegaard

Well 30/9-2 | Core report | Core no.s 11

Norsk Hydro



Well no 30/9–2 | Core report | Core no.s 11

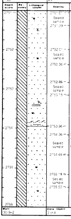
Interval 2746–2751 m | Area Norwegian North Sea | Cut 2741–2759 m | Date 26.5.83

Scale 1:25 | Well RKB 25 m | Recovery 2741–2757.02 m 89% | Geologist Godvik/Giskeødegaard

Well 30/9-2 | Core report | Core no.s 11

Norsk Hydro

Well no 30/9-2	Core report		Core no.s 11
Interval 2751–2756 m	Area Norwegian North Sea	Cut 2741–2759 m	Date 26.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2741–2757.02 m 89%	Geologist Godvik Giskeødegaard

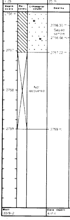


Lithological descriptions	Shows
Sst: [illegible]	[illegible] pale yel wh flu, [illegible] weak - weak slow - inst streaming bl wh flu cut, pale yel wh flu resd, no vis resd
Sst: vf - crs, pred m, else a/a	
Sst: m crs gy, [illegible] milky Qtz [illegible]	

Well	Core report	Core no.s
30/9-2	3 of 4	11

Norsk Hydro

Well no 30/9-2	Core report		Core no.s 11
Interval 2756–2759 m	Area Norwegian North Sea	Cut 2741–2759	Date 26.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2741–2757.02 m 89%	Geologist Godvik Giskeødegaard

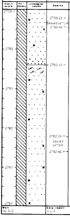


Lithological descriptions	Shows
Sst: m crs gy, [illegible] milky Qtz [illegible] pred m, subang - subrnd, [illegible] mica, we cmtd [illegible] mod srtd, gd vis por	[illegible] pale yell wh flu, [illegible] weak - weak slow - inst streaming bl wh flu cut, pale yel wh flu resd, no vis resd

Well	Core report	Core no.s
30/9-2	4 of 4	11

Norsk Hydro

Well no 30/9-2	Core report		Core no.s 12
Interval 2759–2764 m	Area Norwegian North Sea	Cut 2759–2777 m	Date 26.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2759–2776.86 m 99.9%	Geologist Giskeødegaard Godvik

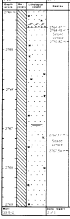


Lithological descriptions	Shows
Sst: [illegible] milky Qtz [illegible] pred m, subang - subrnd, [illegible] mica, [illegible] mod - wel cmtd [illegible] and fair vis por	Weak petr odour, [illegible] pale yel wh flu, weak - weak slow - inst streaming bl wh flu cut, pale [illegible] flu resd, no vis resd
Sst: f - crs, pred m, else a/a	Show a/a
Sst: f - m, else a/a	Show a/a

Well	Core report	Core no.s
30/9-2	1 of 4	12

Norsk Hydro

Well no 30/9-2	Core report		Core no.s 12
Interval 2764–2769 m	Area Norwegian North Sea	Cut 2759–2777 m	Date 26.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2759–2776.86 m 99.9%	Geologist Giskeødegaard Godvik

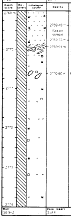


Lithological descriptions	Shows
Sst: m - f gy, [illegible] milky Qtz [illegible] subang - subrnd, [illegible] mica, [illegible] mod - wel cmtd [illegible] mod - wel srtd, fair vis por	Weak petr odour, [illegible] pale yel wh flu, weak - weak slow - inst streaming bl wh flu cut, pale [illegible] flu resd, no vis resd
Plant rem	

Well	Core report	Core no.s
30/9-2	2 of 4	12

Norsk Hydro

Well no 30/9-2	Core report		Core no.s 12
Interval 2769–2774 m	Area Norwegian North Sea	Cut 2759–2777 m	Date 26.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2759–2776.86 m 99.9%	Geologist Giskeødegaard Godvik

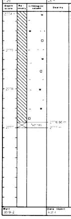


Lithological descriptions	Shows
Sst: m - f gy, [illegible] milky Qtz [illegible] pred m, subang - subrnd, [illegible] mica, [illegible] mod - wel cmtd [illegible] and fair vis por	Weak petr odour, [illegible] pale yel wh flu, weak - weak slow - inst streaming bl wh flu cut, pale [illegible] flu resd, no vis resd
Sandstone - Shale Sh: [illegible]	
Mudstone, very Pyr	

Well	Core report	Core no.s
30/9-2	3 of 4	12

Norsk Hydro

Well no 30/9-2	Core report		Core no.s 12
Interval 2774–2777 m	Area Norwegian North Sea	Cut 2759–2777 m	Date 26.5.83
Scale 1:25	Well R.K.B 25 m	Recovery 2759–2776.86 m 99.9%	Geologist Giskeødegaard Godvik



Lithological descriptions	Shows
Sh: [illegible]	

Well	Core report	Core no.s
30/9-2	4 of 4	12

FMT & DST RESULTS

FMT RESULTS WELL: 30/9-2

No	Depth mRKB	[illegible]	[illegible]	[illegible]
1 1	2305.5	4646	4144	Tight
2 1	2309.3	4657	4295	
3 1	2315	4666	4289	
4 1	2317	4667	4307	
5 1	2319.5	4671	4160	
6 1	2362.5	4769	4267	
7 1	2403.5	4857	4316	
8 1	2469	4993	5	No build up
9 1	2499.5	5245	4117	Good
10 1	2560.5	5235	4106	
11 1	2596	5241	4113	
12 1	2590	5243	4114	
13 1	2600.5	5247	4118	
14 1	2617	[illegible]	[illegible]	Low
15 1	2622.5	5292	4142	Good
16 1	2639.5	5328	4160	
17 1	2662.5	5375	4180	
18 1	2686	5424	4207	
19 1	2690	5429	4212	
20 1	2692	5432	4214	
21 1	2694	5434	4215	Poor
22 1	2702	5444	4223	
23 1	2705	5453	4227	
24 1	2707	5456	4229	
25 1	2710	5462	4232	
26 1	2718.5	5480	4240	
27 1	2721	5484	4242	
28 1	2723	5487	4244	
29 1	2726	5493	4247	
30 1	2728	5496	4249	
31 1	2734.5	5510	4256	
32 1	2738	5514	4260	
33 1	2740	5517	4263	
34 1	2742.5	5523	4267	
35 1	2748.5	5532	4131	No build up
36 1	2748	5532	4276	Good
37 1	2753.5	5543	4284	
38 1	2756	5547	4287	
39 1	2759.9	5555	4292	
40 1	2762	5559	4296	
41 1	2765	5566	4300	

42 1 — 2599.5 — 5232 — 4128
Segregated sample no. 1
Opening pressure: 2200 psig
Recovered: 20.2 cu ft gas, 2.2 l oil

[illegible] 2 — 2728 — 5458 — 4246
Segregated sample no. 2
Opening pressure: 1420 psig
Recovered: 12.45 cu ft gas, 7.4 l oil

[illegible] — 2755 — 5550 — 4291
Segregated sample no. 3
Opening pressure: 0 psig
Recovered: 0 cu ft gas, 0 l oil, [illegible] fluid 5.2 l water 4.6 l [illegible] 22 500 formation water

[illegible] — 2639.5 — 5324 — 4170
[illegible] sample no. 4
Opening pressure: 0 psig
Recovered: 0 cu ft gas, liquid 8.6 l water [illegible] fluid when settled

[illegible] — 2690 — 5429 — 4217
[illegible] sample no. 5
Opening pressure: 1500 psig
Recovered: 11.2 cu ft gas, 3.8 l oil

DST RESULTS WELL: 30/9-2

DST No. 1

Perforated interval	2738–2757 m
Water flow rate	928.5 Sm³/day
Choke size	48/64
Oil cut	1%
BHT	104 C
Final injection rate	2655 Sm³/day
WHP	100.6 bars

DST No. 2

Perforated interval	2728–2704 m
Oil rate	400.6 Sm³/day (32 API gravity)
Gas rate	41.059 Sm³/day (0.708 gravity)
GOR	102.5 Sm³/Sm³
Choke	26/64
CO_2	[illegible]%
H_2S	0
BHT	104.7 C
Final injection rate	2114.5 Sm³/day
WHP	128 bars

DST No. 3

Perforated interval	2685–2693 m
Oil rate	494.5 Sm³/day (3[illegible].2 API gravity)
Gas rate	50.686 Sm³/day (0.695 gravity)
GOR	102.5 Sm³/Sm³
Choke	28/64
CO_2	1%
H_2S	0
BHT	103.7 C

DST No. 4

Perforated interval	2596–2604 m
Oil rate	479.3 Sm³/day (36.5 API gravity)
Gas rate	57.766 Sm³/day (0.730 gravity)
GOR	120.5 Sm³/Sm³
Choke	28/64
CO_2	0.8%
H_2S	0
BHT	100.3 C