



Tampen

Final Well Report 34/7-30 S, 34/7-30 SR, 34/7-30 SRT2



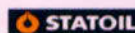
NH-00020252

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Partners:





E&P
PL 089
Tampen

Classific.: Norsk Hydro and partners

REPORT

Title: FINAL WELL REPORT ,
34/7-30 S, 34/7-30 SR, 34/7-30 SRT2

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Prepared by : V. Fjerdingsstad, B.E. Jensen
Verified by : T. Øvrehus, E. Eikje
Approved by : S.A. Askedal

Sign. : *B.E. Jensen*
Sign. : *T. Øvrehus*
Sign. : *S.A. Askedal*

Abstract

The report summarizes the operations and evaluation of results from the exploration well 34/7-30 S, 34/7-30 SR and 34/7-30 SRT2 on the STUJ field.

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TABLE OF CONTENTS

PREFACE

LOCATION MAP

SECTION ARESERVOIR & GEOLOGY

SECTION BDRILLING OPERATIONS

SECTION CENCLOSURES

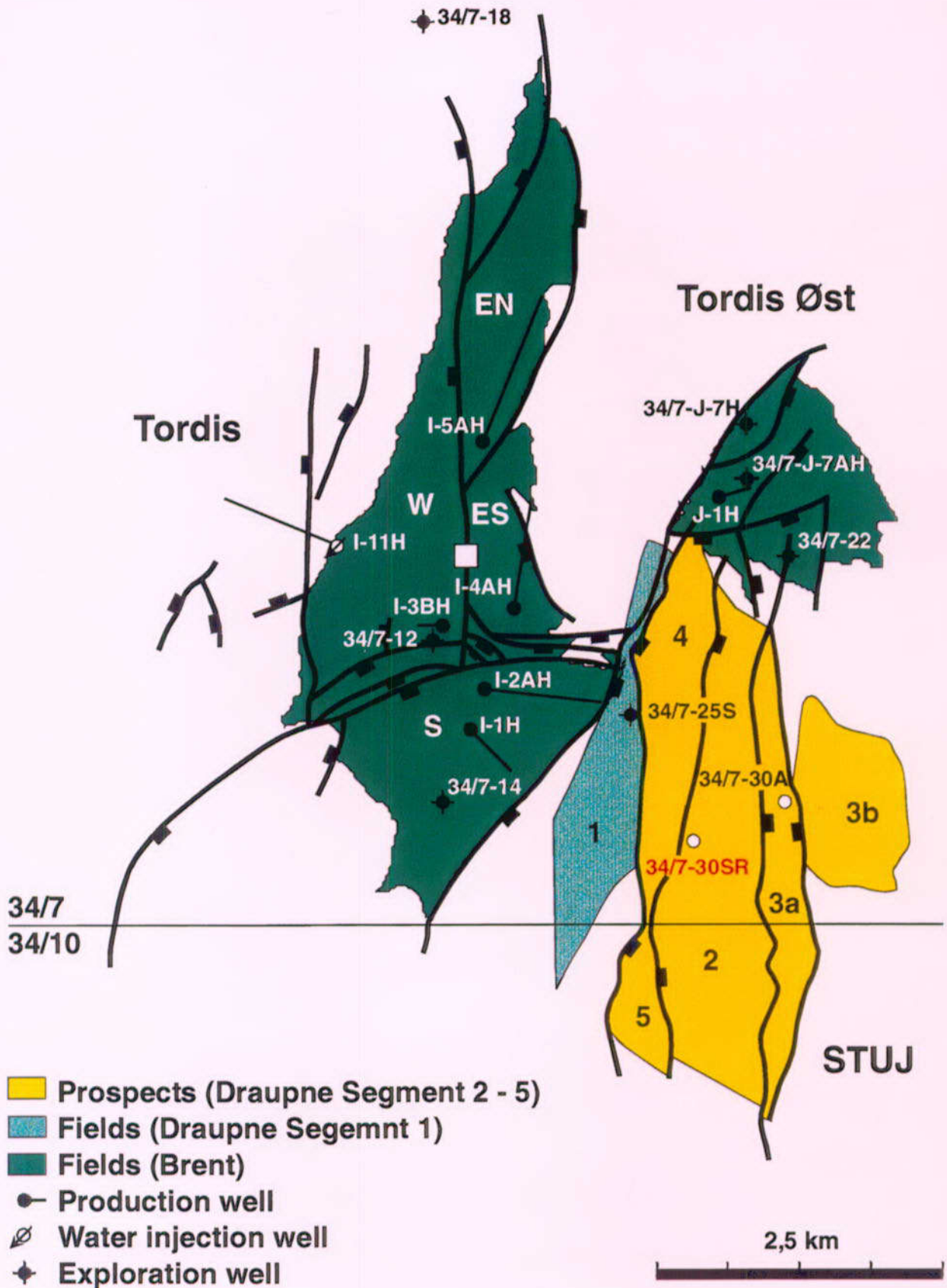
PREFACE

Norsk Hydro Produksjon A.S. operates the STUJ Field on behalf of the following companies:

Norsk Hydro Produksjon A.S.	13,28%
Statoil a.s.	28,22%
Petoro	30,00%
ExxonMobil	10,50%
TotalFinaElf	5,60%
Idemitsu Petroleum	9,60%
RWE-DEA	2,80%

Norsk Hydro Produksjon A.S. on behalf of this group drilled well 34/7-30 S, 34/7-30 SR and 34/7-30 SRT2.

LOCATION MAP



SECTION A

GEOPHYSICS, GEOLOGY

AND

RESERVOIR EVALUATION

WELL 34/7-30 SR / SRT2

Prepared by:

Alv E. Lea, Åge Karlsen,
Anita Hetland Strand, and
Vidar Fjerdingsstad

Verified by:

Jostein Teigland

Approved by:

Eli Eikje

Vidar Fjerdingsstad *Jostein Teigland*

E. Eikje

Table of Contents

1	Summary	1
1.1	Objectives	1
1.2	Operation.....	1
1.3	Evaluation	1
1.4	Well Status	1
2	General Information	2
2.1	Distribution and Analysis of Samples	2
3	Operation Geology	3
3.1	Geographical and Geological Setting	3
3.2	Purposes of the Well	3
3.3	Result of the Well.....	3
3.4	Data Acquisition	3
3.4.1	Cuttings.....	3
3.4.2	Sidewall Cores	4
3.4.3	Conventional Cores	4
3.4.4	MWD Logging.....	4
3.4.5	Wireline Logging.....	4
3.5	Formation Pressure.....	5
3.6	Stratigraphy.....	5
3.6.1	Lithostratigraphy.....	5
4	Reservoir	8
4.1	Reservoir Geology.....	8
4.2	Geophysical Updating.....	8
5	FORMATION EVALUATION	9
5.1	Logging.....	9
5.2	Conventional Core Analysis.....	9
5.3	Formation Pressure Measurements.....	9

Appendix

- 1 Composite Well Log 34/7-30 SR / 30 SRT2
- 2 Core description

1 Summary

1.1 Objectives

Well 34/7-30 SR was the second well to be drilled in the Southern Triangle Upper Jurassic (STUJ). The well was drilled from drilltest well 34/7-30 (see Chapter 3 and Section B for further details). The objective of the well 34/7-30 SR was data acquisition to evaluate oil reserves in STUJ segment 2 (Figure A-1).

1.2 Operation

If not otherwise mentioned, all depths refer to m RKB (Rotary Kelly Bushing) for Scarabeo 5 (25 m above MSL).

1.3 Evaluation

The expected reservoir section, the Upper Draupne Sand, was not found in this well. One core was cut over the possible reservoir interval situated just below the Cromer Knoll Group from 2403 – 2448 m but only claystone and silty claystone of the Heather Formation were penetrated. TD was set in shale of the Heather Formation according to the well programme.

1.4 Well Status

The well is plugged and abandoned.

2 General Information

2.1 Distribution and Analysis of Samples

Cuttings samples

Samples were taken for lithological description and biostratigraphy. Seven sets of wet samples and ten sets of dry samples were collected from 1150 m MD to TD. One set of canned samples for organic geochemical analysis was sent to the Operator.

Sidewall cores

No sidewall cores were taken in the well.

Conventional cores

One core was cut in the well (Chapter 3). The core consists of claystone.

3 Operation Geology

3.1 Geographical and Geological Setting

Well 34/7-30 SR was the second well to be drilled on STUJ. It was drilled from the drill test well 34/7-30 which was spudded by Bideford Dolphin on the 26th May 1999 and drilled to 1142 m MD RKB/1141.8 m TVD RKB. 34/7-30 SR (12 ¼" hole) was drilled to 1365 m MD. Due to drilling problems (Section B) the well was plugged back and kicked off at 1245 m MD (34/7-30 SRT2).

The well is located in the western part of the Southern Triangle Upper Jurassic (STUJ) prospect, segment 2. The prospect is situated in the Southern Triangle which is restricted to the south by the Gullfaks Field and to the east and north by the northern extension of the NW-SE trending Gullfaks Fault and southern part of the Inner Snorre Fault. To the west, the Southern Triangle is separated from the Tordis Field by the main Tordis Fault (Figure A-1).

3.2 Purposes of the Well

The main objective was data acquisition in order to evaluate oil reserves in the Draupne Sand in STUJ segment 2.

3.3 Result of the Well

Reservoir rocks were not encountered in this well

3.4 Data Acquisition

3.4.1 Cuttings

Samples for lithological description, organic geochemical analysis, and biostratigraphic dating were collected between 1150 and 2478 m. In the 12 ¼" section, from 1150 m to 2362 m, 7 sets of ditch cuttings and 10 sets of washed and dried samples were collected at 10 m intervals. In the 8 ½" section, from 2362 m to 2478 m, 7 sets of ditch cuttings and 10 sets of washed and dried samples were collected at 3 m intervals (Table A-1).

Table A-1: Data acquisition, cuttings sampling.

Hole section	Depth interval (m mdRKB)	Cuttings		
		Sampling interval	Wet	Dry
12 ¼"	1150 – 2362	each 10 m	3 Saga	1 Saga
			1 NPD	1 NPD
			3 Partners	8 Partners
8 ½"	2362 – 2403 2450 – 2478	each 3 m	3 Saga	1 Saga
			1 NPD	1 NPD
			3 Partners	8 Partners

3.4.2 Sidewall Cores

Sidewall cores were not taken in the well.

3.4.3 Conventional Cores

One core was cut in the 8½" section from 2403 m 2448 m (Table A-2). The lithology of the cored interval is shale (45 m). See Appendix 2 for core description.

Table A-2: Data acquisition, coring

Core no.	Cored interval m MD RKB	Cored interval m TVD	m cored	m rec.	% rec.	Correction core to log (m)
1	2403 - 2448	2206.0 - 2243.9	45.0	44.5	98.8	+0.5

3.4.4 MWD Logging

MWD GR and Resistivity were run in the 9 ¼" pilot hole to be able to evaluate if shallow gas were present. In the 12 ¼" section GR and Resistivity were run for formation characterisation. GR and Resistivity were also run in the 8 ½" section, see Table A-3.

3.4.5 Wireline Logging

The wireline logging in the 8 ½" section went according to the programme (Table A-3).

Table A-3: MWD and Wireline/TLC log summary

Logged interval (m mdrKB)	Hole size	Run no.	Log type	Date	Formation temp. (°C)
1142 - 1220	12 ¼"	1	MWD (GR, RES, DIR)		
1220 - 1365	12 ¼"	2	MWD (GR, RES, DIR)		
1244 - 1994	12 ¼"	3 T2	MWD (GR, RES, DIR)		
1994 - 2362	12 ¼"	4 T2	MWD (GR, RES, DIR)		
2362 - 2403	8 ½"	6 T2	MWD (GR, RES, DIR)		
2448 - 2478	8 ½"	7 T2	MWD (GR, RES, DIR)		
1211 - 2340	12 ¼"	1A/A/A	CBL-VDL-GR, USIT	26.11.99	61.0 °C
2342 - 2477	8 ½"	2A/A/A	AITH-DSI-PEX-GR-ACTS	30.11.99	64.0 °C
Aborted	8 ½"	2A/A/A	VSP	30.11.99	-
2399.5 - 2480	8 ½"	2A/A/A	MDT-GR	01.12.99	73.4 °C

3.5 Formation Pressure

Five pretest pressure measurements were attempted (Table A-6) in order to check if a very thin reservoir could be present. All 5 tests were negative.

3.6 Stratigraphy

3.6.1 Lithostratigraphy

The formation descriptions are based on cuttings except for the cored interval of the Heather Formation.

HORDALAND GROUP

1246 – 1675 m (1245.9 – 1656.5 mTVD)

The major lithologies are claystone and sandstone.

Claystone: Olive black to greenish black, greenish grey to dark greenish grey, brownish grey. Soft to firm, blocky. Silty in places, non calcareous, occasionally slightly calcareous, occasionally slightly micro pyritic, glauconitic.

Sandstone: Yellowish light grey. Very fine to fine, occasionally medium grained. Subrounded, well sorted, glauconitic. Soft to firm. Clear to milky white, transparent to translucent quartz. Argillaceous matrix.

ROGALAND GROUP

Balder Formation

1675 – 1735 m (1656.5 – 1706.5 mTVD)

Claystone: Brownish grey to dark greenish grey, firm, blocky, slightly calcareous, glauconitic.

Lista/Sele Formation

1735 – 1935 m (1706.5 – 1879.4 mTVD)

Claystone: Dark greenish grey to greyish green, occasionally medium brown, firm, blocky, slightly calcareous.

SHETLAND GROUP

1935 – 2396 m (1879.4 – 2200.1 mTVD)

This interval consists of undifferentiated claystones with slightly different characteristics and claystones interbedded with limestone and sandstone, and with traces of dolomite.

Claystone (undifferentiated): Medium grey to greenish grey, brown to brownish grey, light greenish grey, blocky, firm, occasionally moderately hard, soft in places, non calcareous, occasional traces of mica.

Claystone (interbedded): Dark greenish grey to olive grey, olive black, firm, occasionally hard, blocky, silty in parts, glauconitic, sticky, calcareous in places.

Limestone: Micritic, offwhite, blocky, firm to hard.

Sandstone: Very fine grained, well sorted, subangular to subrounded. Clear quartz grains.

Dolomite (trace): Blocky and microcrystalline, medium brown, firm to medium hard.

CROMER KNOLL GROUP

2396 – 2399 m (2200.1 – 2202.6 mTVD)

Two claystones was differentiated mainly by colour.

Claystone 1: Medium dark grey to olive black, occasionally greenish grey, blocky, occasionally sub-fissile, soft to firm, occasionally pyrite, micromica and glauconite, calcareous.

Claystone 2: Reddish brown, blocky, soft, sticky, non calcareous.

VIKING GROUP

Heather Formation

2399 – 2478 m (2206.6 – 2269.2 mTVD)

The formation consists primarily of claystone with traces of limestone and marl.

Claystone: Brownish to dark grey, soft to firm, sub-blocky, occasionally amorphous, slightly silty, in parts very silty, very calcareous to calcareous, pyritic.

Limestone (traces): White to yellowish white, firm to soft, blocky, micritic.

Marl (traces): Moderately brown, firm, blocky, very calcareous.

The cored interval, 2403 – 2448 m (2206.0 – 2243.9 mTVD)

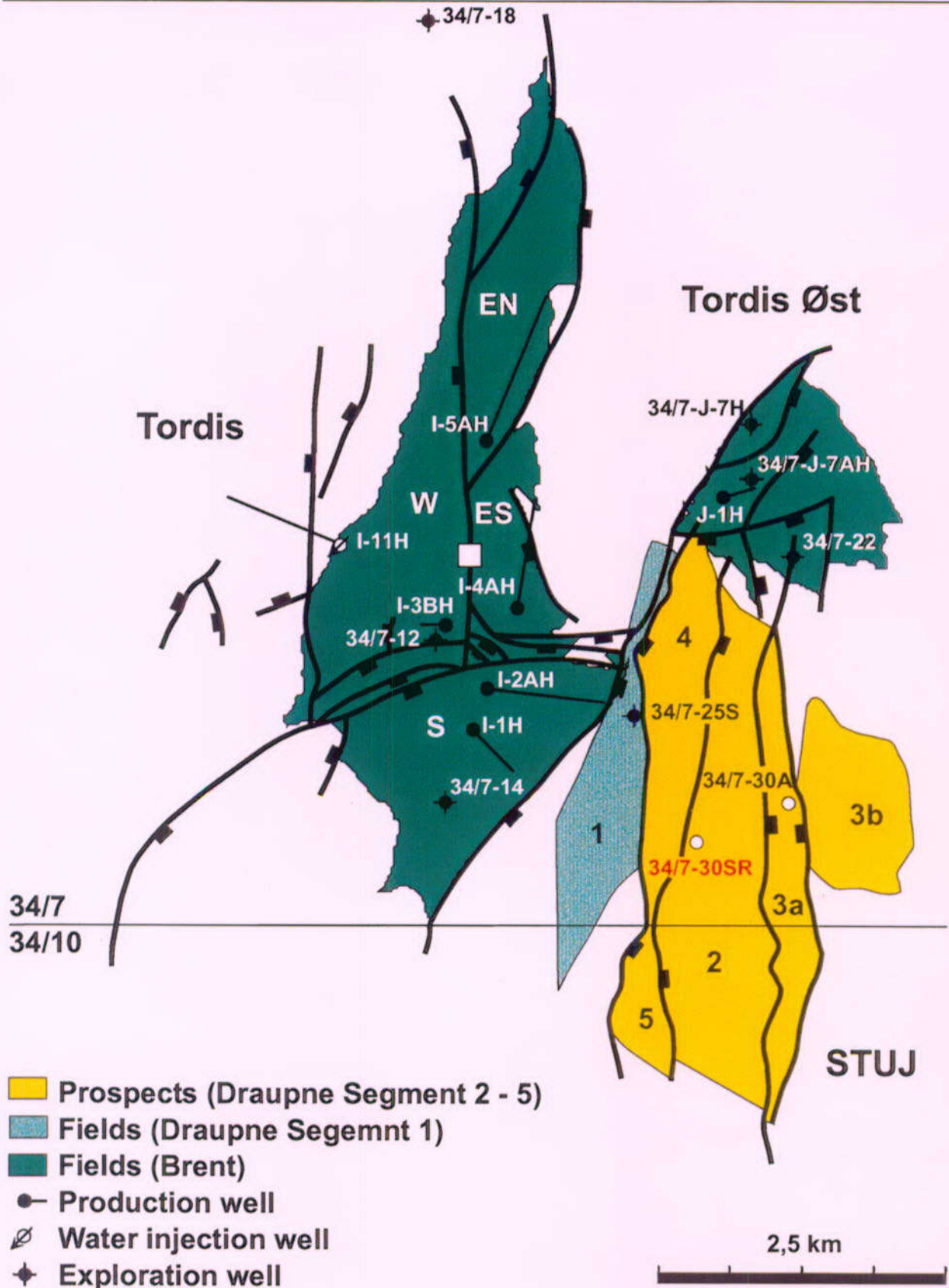
Claystone: Slightly silty, calcareous to non calcareous, dark grey to olive black. The rock is commonly firm to hard, and sub-fissile.

A summary of the stratigraphy is given in Table A-4. Details and descriptions are included in the Composite Log (Appendix 1).

Table A-4: Formation tops.

Unit	Depth at top of unit		Thickness
	m MD RKB	m TVD MSL	Penetrated m MD
Seabed	238	213.0	–
- <i>Utsira Fm</i>	925	900.0	321
HORDALAND GP	1246	1220.9	429
ROGALAND GP	1675	1631.5	260
- <i>Balder Fm</i>	1675	1631.5	
- <i>Lista/Sele Fm</i>	1735	1681.5	
SHETLAND GP	1935	1854.4	461
CR.KNOLL GP.	2396	2175.1	3
VIKING GP.	2399	2181.6	79 ¹⁾
- <i>Heather Fm.</i>	2399	2181.6	79 ¹⁾
TD	2478	2244.2	–

¹⁾ Partly penetrated



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Figure A-1 Map of the well location on STUJ.

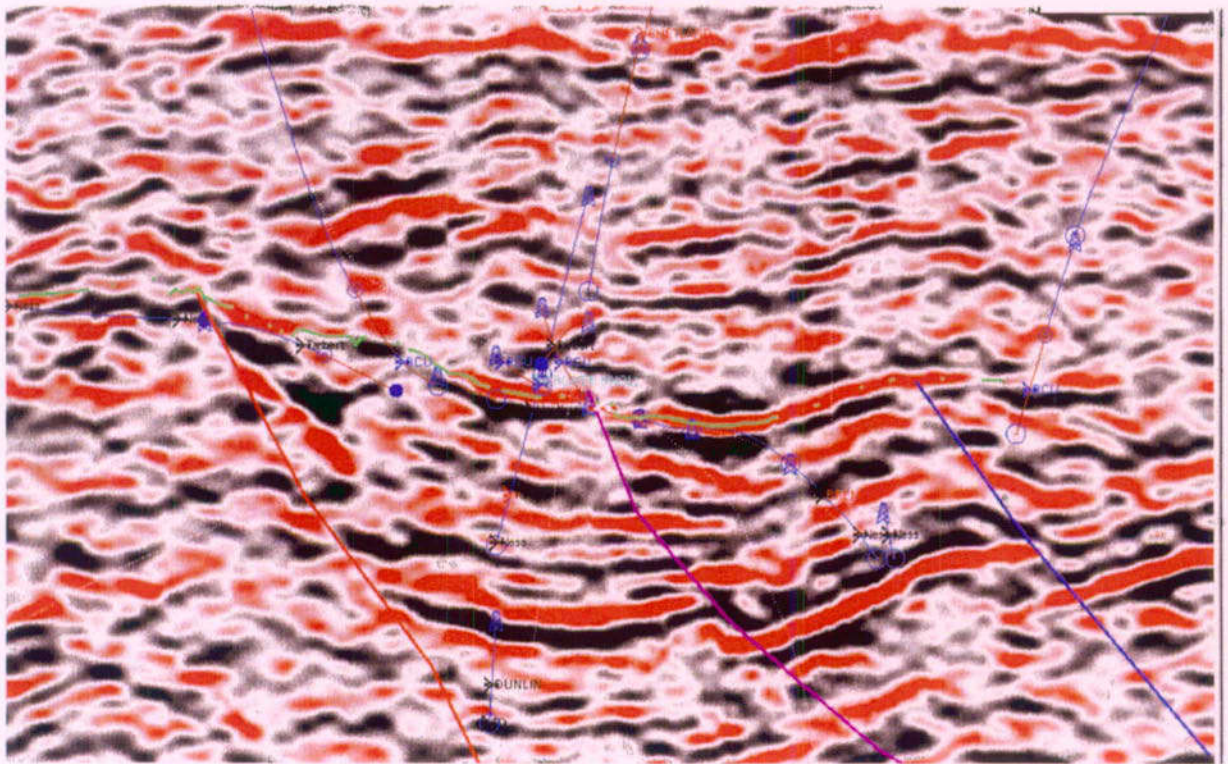


Figure A-2: Seismic section through 34/7-30 SRT2 and 34/7-25 S

4 Reservoir

4.1 Reservoir Geology

The well was drilled to 2478 m MD/2269.2 m TVD into rocks of Upper Jurassic age (Heather Fm). Reservoir rocks were not penetrated.

4.2 Geophysical Updating

VSP

A normal incidence VSP was planned but aborted when the well proved dry.

A seismic section along well paths -30 A and -30 SR is shown in Figure A-2.

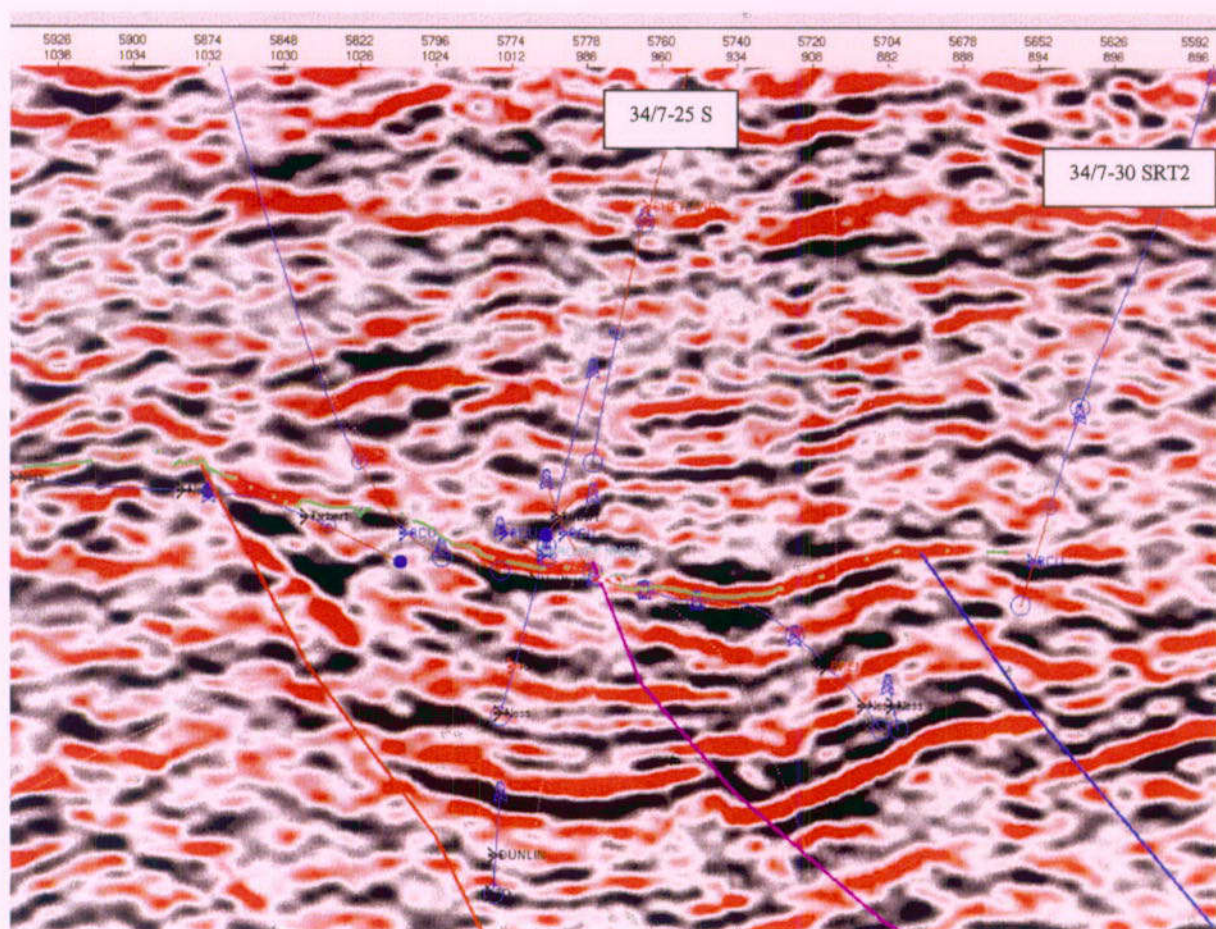


Figure A-2: Seismic section through 34/7-30 SRT2 and 34/7-25 S

5 FORMATION EVALUATION

5.1 Logging

Well 34/7-30 SRT2 started at 1244 m MD and was drilled to a TD of 2478 m MD. The wireline log quality in the open hole is good. The DSI was logged inside 9 5/8" casing to 1600 m. The well is a dry well and therefor no petrophysical interpretation has been performed.

5.2 Conventional Core Analysis

One core was cut from 2403 m MD to 2448 m MD. The results from the conventional core analysis are listed in table A-5 below.

Table A-5: Conventional core analysis

Depth (mMD)	Mean Porosity (%)	Mean Permeability (mD)
2403-2448.3	17.8	0.02

The core should be depth shifted 0.5 m down compared to the wireline logs.

5.3 Formation Pressure Measurements

Five pretest pressure measurements were attempted between 2399.5 m and 2400.5 m MD (Table A-6). All five pretests measurements were tight.

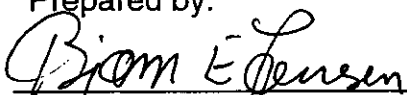
Table A-6: Pressure summary, 34/7-30 SRT2.

FORMATION TESTER WELLSITE WORKSHEET - SAGA PETROLEUM ASA														
WELL: 34/7-30SR T2		RUN/TOOLSTRING: 2A MDT			WITNESS: A.J. Clark									
RIG: SCARABEO 5		PRESSURE UNITS: BAR			DATE: 01-dec-99									
KB: 25 m		MUD WEIGHT (SG): 1,6 g/cm3												
TEST NO.	START TIME hh:mm	DEPTH		DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP AFTER deg. C	MOB. INDEX	COMMENTS	
		MD RKB	RKB		EMW	HP	EMW	HP	EMW	HP				
1	22:01	2400,5	2203,9	2178,9	1,607	348,50							20cc - Tight, cancelled	
2	22:06	2400,0	2203,4	2178,4	1,607	348,28		1,608	348,49	73,4			20cc - Tight, not stabilized after 20 mins, aborted at 301,0 bar	
3	22:39	2399,5	2203,0	2178,0	1,608	348,60							20cc - Tight, cancelled	
4	22:50	2400,2	2203,6	2178,6	1,609	348,87							20cc - Tight, cancelled	
5	22:59	2400,2	2203,6	2178,6	1,609	348,91							20cc - Tight, cancelled (used alternative probe)	

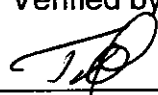
SECTION B
DRILLING OPERATIONS

WELL 34/7-30 S, 34/7-30 SR, 34/7-30 SRT2

Prepared by:


Bjørn E. Jensen

Verified by:


Trygve Øvrehus

Approved by:

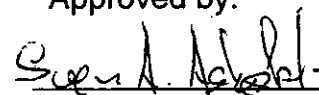

Sven Arve Askedal

TABLE OF CONTENTS

- 1 OPERATION RESUME**
 - 1.1 General Information on Well
 - 1.2 Final Casing and Cement Profiles
 - 1.3 Drilling Experience
 - 1.3.1 Summary and Drilling Highlights
 - 1.3.2 12 1/4" Hole Section
 - 1.2.2 8 1/2" Hole Section
- 2 DOWN TIME REPORT**
- 3 DETAILED OPERATION**
 - 3.1 Time distribution
 - 3.2 Daily Report on Well
- 4 HOLE DEVIATION**
- 5 CEMENT ADDITIVES**
 - 5.1 Cement Consumption
 - 5.2 Cement Slurry Report
 - 5.3 Total Consumption of Cement Additives
- 6 MUD PARAMETERS / CONSUMPTION**
 - 6.1 Daily Mud Properties
 - 6.2 Total Consumption of Mud Additives
- 7 BIT / CASING CONSUMPTION**
 - 7.1 Bit Records
 - 7.2 Main Consumption of Casing and Tubing
- 8 BOTTOM HOLE ASSEMBLIES**
- 9 PORE PRESSURE / FORMATION STRENGHT**
- 10 DRILLING CURVE**

1 OPERATION RESUME

1.1 General Information on Well

1.2 Final Casing and Cement Profiles

1.3 Drilling Experience

GENERAL INFORMATION ON WELL 34/7-30 S

Field : STUJ Country : NORWAY
 Licence : 89 Installation : BIDEFORD DOLPHIN
 UTM zone : 31 Central Median : 3' E Horiz. Datum: ED50

Location coordinates:		Surface	Target
UTM	North [m]:	6792386.1	6792383.8
UTM	East [m]:	455499.5	455497.3
Geographical	North :	61 15'42.27"	
Geographical	East :	02 10'13.50"	

Water Depth: 213.0 m Reference Point Height: 31.0 m
 Formation at TD: No formation data found.

Operators: NORSK HYDRO PRODUKSJON A/S	Share: 13.28 %
Partners: PETORO	Share: 30.00 %
DEN NORSKE STATS OLJESELSKAP A/S	28.22 %
EXXON MOBIL	10.50 %
IDEMUTSU PETROLEUM	9.60 %
TOTALFINAELF	5.60 %
RWE-DEA	2.80 %

Total depth (RKB) : 1148.0 m MD 1148.0 m TVD

TIME SUMMARY Start Time : 1999-05-27 19:00:00
 Spudding date : 1999-05-26
 Abandonment date :

Main operation	Hours	Days	%
MOVING	18.0	0.8	4.7
DRILLING	313.5	13.1	81.4
INTERRUPTION	53.5	2.2	13.9
Sum:	385.0	16.0	

Hole and casing record

Hole	Track	Depth [m MD]	Casing/Tubing	Track	Depth [m MD]
36"		297.0	30"		294.0
17 1/2"		1148.0	13 3/8"		1148.0

Well status:

CONTRACTORS:

Bit Supplier : HYCALOG
Bit Supplier : SECURITY DBS
Casing Equipment Supplier : MITSUI
Cement Contractor : SCHLUMBERGER DOWELL
Completion Eq. Contractor : PETROLEUM ENGINEERING SERVICES
Fishing Tool Supplier : SMITH RED BARON
Liner Hanger Supplier : BAKER OIL TOOLS
Mud Contractor : MI NORGE
Other Supplier : AGR
Other Supplier : FLORØ BASE
Other Supplier : HALLIBURTON OILFIELD SERVICES NORWAY II
Other Supplier : SCHLUMBERGER WIRELINE & TESTING
Rov Supplier : OCEANEERING A/S
Safety Valves Contractor : CAMCO DRILLING GROUP
Slick Line Contractor : MARITIME WELL SERVICE

GENERAL INFORMATION ON WELL 34/7-30 SR

Field : STUJ Country : NORWAY
 Licence : 89 Installation : SCARABEO 5
 UTM zone : 31 Central Median : 3' E Horiz. Datum: ED50

Location coordinates:		Surface	Target
UTM	North [m]:	6792386.1	
UTM	East [m]:	455499.5	
Geographical	North :	61 15'42.27"	
Geographical	East :	02 10'13.50"	

Water Depth: 213.0 m Reference Point Height: 25.0 m
 Formation at TD: No formation data found.

Operators: NORSK HYDRO PRODUKSJON A/S Share: 13.28 %

Partners: PETORO Share: 30.00 %
 DEN NORSKE STATS OLJESELSKAP A/S 28.22 %
 EXXON MOBIL 10.50 %
 IDEMUTSU PETROLEUM 9.60 %
 TOTALFINAELF 5.60 %
 RWE-DEA 2.80 %

Total depth (RKB) : 2478.0 m MD 2269.2 m TVD

TIME SUMMARY Start Time : 1999-11-11 12:30:00
 Spudding date : 1999-11-11
 Abandonment date :

Main operation	Hours	Days	%
INTERRUPTION	154.5	6.4	23.7
MOVING	52.0	2.2	8.0
PLUG & ABANDON	108.0	4.5	16.6
DRILLING	285.0	11.9	43.7
FORMATION EVAL	53.0	2.2	8.1
Sum:	652.5	27.2	

Hole and casing record

Hole	Track	Depth [m MD]	Casing/Tubing	Track	Depth [m MD]
12 1/4"	T2	2362.0	30"		286.0
8 1/2"	T2	2478.0	13 3/8"		1140.0
			9 5/8"		2380.0

Well status:

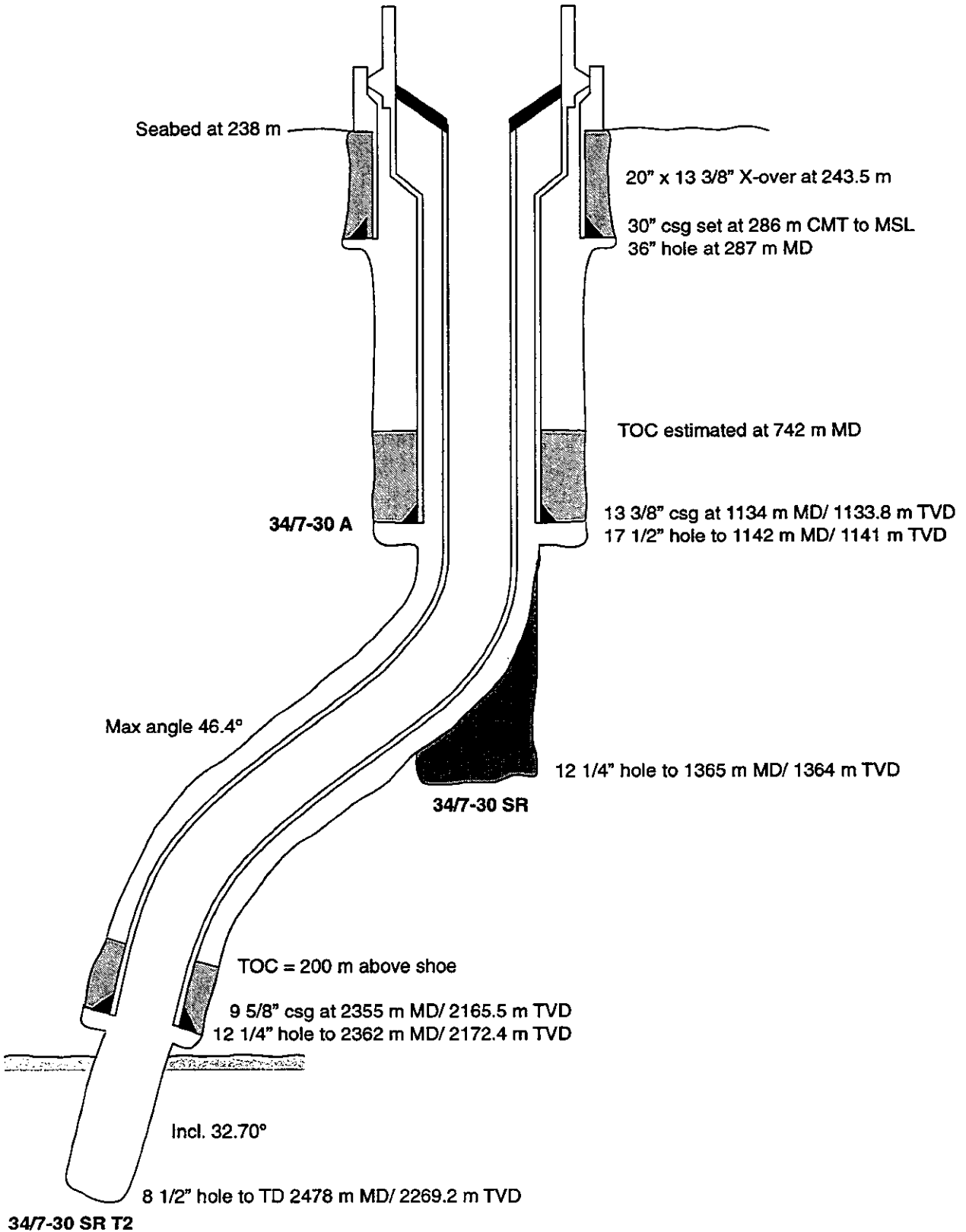
CONTRACTORS:

Mud Contractor : MI NORGE
 Rov Supplier : OCEANEERING A/S

1.2 Final Casing and Cement Profiles

Scarabeo 5 RKB: 25 m
 Water depth: 213 m

Note: 1. Not to scale
 2. All depths are m RKB



1.3 Drilling Experience

1.3.1 Summary and Drilling Highlights

The appraisal well 34/7-30 SR & 30 SRT2 was drilled with the semi submersible drilling rig Scarabeo 5 from the drill test well 34/7-30 S drilled by Bideford Dolphin in the summer of 1999.

The 36" section / 30" conductor and the 17 ½" section 18 5/8" x 13 3/8" casing was drilled / installed during the Bideford Dolphins drill test.

The rig was moved from well 34/7-I-10 H on the Borg field. A specialised anchor pattern with 3 wires inserted into 3 of the chains in the anchor system was utilised to anchor the rig close to the pipelines, flow lines and control umbilicals. Four anchor handling vessels were utilised to assist in the complex anchor handling operation. Seven anchors were run in 14 ½ hrs., but installation of the last anchor took 10 ½ hrs. due to anchor no. 4 broke off during running.

The trawl cap was recovered without problems. When running the PGB, it was not possible to latch the PGB to the 30" conductor housing. Modified the PGB, but was not able to latch on. Left the PGB unlatched.

When Bideford Dolphin cemented the 13 3/8" casing, the cement dart got stuck in the sub-sea plug-tool and thereby blocking the casing. The already pumped cement U-tubed in place. The cement left inside the casing was drilled down to approximately 1004 m MD, 130 m above the shoe. The casing was filled with 64 m³ of inhibited seawater.

Prior to continue drilling of 34/7-30 SR the BOP was run on the marine riser, landed and tested.

1.3.2 12 ¼" Hole Section (1142 – 2362 m)

The first bit run tagged cement at 1001m and the well was displaced to OBM. Drilled out the cement, the float and the shoe track. Drilled new formation from 1142m to 1149 m. Circulated and conditioned mud prior to carrying out an FIT @ 1134m MD to 1.64 sg EMW with 1.44 sg MW. Drilled/steered ahead from 1149m to 1219m, but was unable to achieve a kick off. Pulled out of hole to change bit.

Ran into the hole with bit # 2 and tagged bottom at 1219m. The attempt to kick off the well failed. Encountered very low ROPs and the bit was pulled at 1365m. Observed that all 3 cones had been left in hole. A cement stinger was then run, and the well was plugged back.

Bit # 3 was run in the hole. Tagged cement at 1244 m. Dressed cement and kicked off well at 1245m. 100% formation was found in the sample from 1265m. Drilled ahead from 1265m to 1994m. Pulled out of hole for a bit change due to maximum hours and revolutions on the bit.

Changed bit and ran in hole to 1994m. Drilled to 9-5/8" casing point at 2362m. Gas increased rapidly from 2270m down to casing point. A wiper trip was performed to 1994m. Trip gas level of 24.5% was recorded when circulating on bottom. Circulated the well until gas levels fell below 1% before pulling out of the hole prior to running the 9 5/8" casing.

The casing was run with continuous mud losses from 500m to TD. Total losses during the casing running were 191m³. The cement job was carried out without returns. The 9 5/8" seal assembly was successfully set with 25 000 ft-lbs.

1.3.3 8 1/2" Hole Section (2362 – 2478 m)

The first 8 1/2" bit run tagged cement at 2315m. Drilled out the cement, the float and the shoe track. Observed dynamic losses when drilling through the shoe. No static losses observed on the trip tank. Pulled out of the hole with the drilling assembly. Ran in hole with cement a stinger and performed a squeeze job.

Ran in hole with bit # 6 and tagged cement at 2284m. Drilled cement from 2284m to 2345m (10 m above shoe).

RIH bit # 5RR. Hung off tool string and displaced riser and waited on weather. Displaced riser back to OBM. Recovered tool string and racked back hang off tool. Ran in hole and tagged cement at 2245m. Drilled out cement to 2255m and cleaned out rat hole without losses. Tagged bottom at 2362m and drilled new formation to 2365m. Circulated hole clean.

Performed a FIT with 1.60 sg MW to 21.5 bar, giving an EMW of 1.7 sg EMW. Drilled from 2365m to coring point at 2403m (picked from gamma and ROP). Pulled out of the hole.

Ran in hole with core head # 1 and cut a core from 2403m to 2448m. Retrieved core with 100% recovery at surface. No sands or shows were observed in the core.

Bit # 5RR2 was run in hole. Drilled 30m from 2448m to 2478m to fulfil the licence TD criteria.

Performed two wire line logging runs. Run # 1 PEX-AITH-DSI. Run # 2 MDT. The well was permanently plugged and abandoned.

DOWN TIME REPORT

DOWNTIME REPORT BIDEFORD DOLPHIN

Last 1285 days

Inst. Wellname	Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
BIDD 34/7-30 S	1999-05-29	11	1.0	Equipment failure	TO BE NAMED	TO BE NAMED	Not able to set auto slips on slick MWD, changed to manual rotary.	PIPE HANDLING EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	347.00	Other Pipe Handling Equipment	
BIDD 34/7-30 S	1999-05-29	10	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	Repaired bursted hose on elevator.	PIPE HANDLING EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	347.00	Other Pipe Handling Equipment	
BIDD 34/7-30 S	1999-05-30	9	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	Changed piston on mud pump no 3.	MUD AND BULK SYSTEMS	OTHER ACTIVITY	OTHER	329.00	Other Mud and Bulk System	
BIDD 34/7-30 S	1999-05-30	8	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	Backlash on guideline winch , wire got stuck.	WELLCONTROL EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	337.05	Other Well Control Related Equipment	
BIDD 34/7-30 S	1999-05-31	7	1.5	Equipment failure	TO BE NAMED	TO BE NAMED	Checked leak on rotary.	DRILL FLOOR EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	317.00	Other Drill Floor Eq./Syst.	
BIDD 34/7-30 S	1999-05-31	6	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	tested heave compensator.	HOISTING EQUIPMENT	OTHER ACTIVITY	OTHER	305.00	Other Hoisting Equipment	
BIDD 34/7-30 S	1999-06-01	5	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	Failure on lower guide arm.	PIPE HANDLING EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	347.00	Other Pipe Handling Equipment	
BIDD 34/7-30 S	1999-06-03	4	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	Tested active heave compensator.	HOISTING EQUIPMENT	OTHER ACTIVITY	OTHER	305.00	Other Hoisting Equipment	
BIDD 34/7-30 S	1999-06-03	3	0.5	Equipment failure	SWIRE PACIFIC OFFSHORE	TO BE NAMED	Changed from power slips to manual slips due to worn dies.	PIPE HANDLING EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	347.00	Other Pipe Handling Equipment	
BIDD 34/7-30 S	1999-06-04	2	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	Changed from manual slips to power slips.	PIPE HANDLING EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	347.00	Other Pipe Handling Equipment	
BIDD 34/7-30 S	1999-06-05	1	2.0	Equipment failure	TO BE NAMED	TO BE NAMED	Not able to shear top plug. Xover above plug hanger had small id.	SERVICE EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	370.00	Other Service Equipment/Sy	

Sum: 8.5

Total Sum: 8.5

DOWNTIME REPORT SCARABEO 5

Last 1117 days

Inst. Wellname	Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
SCA5 347-30 SR	1999-11-21	1	0.5	Equipment failure	TO BE NAMED	TO BE NAMED	Repaired electric control systems on IRON Roughac	DRILL FLOOR EQUIPMENT/SYS	OTHER ACTIVITY	OTHER	317.00	Other Drill Floor Eq./Syst.	

Sum: 0.5

Total Sum: 0.5

3 DETAILED OPERATION

3.1 Time distribution

3.2 Daily Report on Well

TIME DISTRIBUTION

Well: 34/7-30 S PO: 1 Start date: 1980-01-01 Rig: BIDEFORD DOLPHIN Depth: 1148.0 m MD
 All sections Stop date: 2002-12-02

Operations	Hours	%	Hours	%	Acc. total
DRILLING					
BOP ACTIVITIES	6.5	1.69			
BOP/WELLHE	84.0	21.82			
CASING	38.5	10.00			
CEMENT	22.5	5.84			
CIRC/COND	8.5	2.21			
DRILL	66.5	17.27			
HOLE OPEN	2.0	0.52			
OTHER	4.5	1.17			
REAM	10.5	2.73			
TRIP	60.5	15.71			
WOC	9.5	2.47			
Sum.....			313.5	81.43	313.5
INTERRUPTION					
BOP/WH (E)	13.0	3.38			
CSG/CMT(E)	28.0	7.27			
DRILLING EQ.(F)	2.0	0.52			
MOVING EQ.(E)	0.5	0.13			
OTHER	0.5	0.13			
SURFACE DRILLING EQ.(E)	9.5	2.47			
Sum.....			53.5	13.90	367.0
MOVING					
ANCHOR	18.0	4.68			
Sum.....			18.0	4.68	385.0
Reported time (100.0 % of well total 385.0 hours) :					385.0

TIME DISTRIBUTION

Well: 34/7-30 SR PO: 1 Start date: 1980-01-01 Rig: SCARABEO 5 Depth: 2478.0 m MD
 All sections Stop date: 2002-12-02

Operations	Hours	%	Hours	%	Acc. total
DRILLING					
BOP ACTIVITIES	33.0	5.06			
BOP/WELLHE	27.5	4.21			
CASING	34.0	5.21			
CEMENT	4.0	0.61			
CIRC/COND	18.5	2.84			
DRILL	99.0	15.17			
LOT/FIT	1.0	0.15			
OTHER	1.0	0.15			
PRESS DETECTION	1.5	0.23			
SLIP & CUT	2.0	0.31			
SURVEY	0.5	0.08			
TRIP	63.0	9.66			
Sum.....			285.0	43.68	285.0
FORMATION EVAL					
CIRC SAMPLES	1.5	0.23			
CORE	26.0	3.98			
LOG WL	11.5	1.76			
OTHER	2.5	0.38			
RFT/FMT	11.5	1.76			
Sum.....			53.0	8.12	338.0
INTERRUPTION					
BOP/WH (E)	14.5	2.22			
CSG/CMT(E)	3.0	0.46			
DOWNHOLE DRILLING EQ.(E)	0.5	0.08			
DRILLING EQ.(F)	0.5	0.08			
FISH	12.0	1.84			
LOST CIRCULATION	51.0	7.82			
MOVING EQ.(E)	7.5	1.15			
MWD EQ.(E)	2.0	0.31			
OTHER	1.0	0.15			
SIDE-TRACK	19.0	2.91			
SURFACE DRILLING EQ.(E)	0.5	0.08			
WOW	43.0	6.59			
Sum.....			154.5	23.68	492.5
MOVING					
ANCHOR	52.0	7.97			
Sum.....			52.0	7.97	544.5
PLUG & ABANDON					
CEMENT PLUG	7.0	1.07			
CIRC/COND	7.5	1.15			
CUT	13.5	2.07			
EQUIP RECOVERY	29.5	4.52			
MECHANICAL PLUG	7.5	1.15			
MILL	12.5	1.92			
TRIP	21.5	3.30			
WOC	9.0	1.38			
Sum.....			108.0	16.55	652.5
Reported time (100.0 % of well total 652.5 hours) :					652.5

DAILY REPORT ON WELL 34/7-30 S

Daily report no : 1 Date: 1999-05-27
 Midnight depth : 294 m MD Estimated PP: 0.95 sg Mud weight: 1.20 sg

Stop time	Description
19:30	ROV set buoy & beacon on bottom. Tag bottom at 19: 40 hrs.
23:59	Drill & survey 9 7/8" from 244-294 m.

Daily report no : 2 Date: 1999-05-28
 Midnight depth : 600 m MD Estimated PP: 0.95 sg Mud weight: 1.20 sg

Stop time	Description
07:00	Continue drilling. Displace to SW and flowcheck 10 min, OK. Boulders on 285m, 295m, 298m, 317m, 352m , 365m.
12:00	Continue drilling 9 7/8" pilot hole 392-479m. Survey and hi-vis pill on every connection.
17:30	Displace well to 1.2 sg mud. Continue drilling from 479-576m.
18:00	Displace well w1500 str SW. Flow checked for 15 min. Negative.
19:00	Continue drilling from 576-590m. Survey and hi-vis pill on every connection. Surveys: 442m-0.5, 501m 0.4, 579m-0.27.
19:30	Continue drilling 9 7/8" pilot hole from 588-600m.
20:30	Flow check for 10 min, OK. Displace hole to 1.2m3.
22:30	POOH slowly to 360m. @ 407m pump 6m3 1.2 sg mud.
23:00	ROV moved transponder closer to well.
23:59	Continue POOH and B/U BHA.

Daily report no : 3 Date: 1999-05-29
 Midnight depth : 282 m MD Estimated PP: 0.95 sg Mud weight: 1.20 sg

Stop time	Description
01:30	Continue POOH.
02:30	Trouble to set auto slips on slick MWD, changed to manual rotary.
03:30	Break bit and lay down stabs.
04:00	Sperry Sun downloads MWD.
04:30	Lay down MWD.
05:30	Install Autoslips.
07:00	P/U 5 1/2" Dp from deck.
07:30	Change dies on Iron Roughneck.
08:30	Continue P/U 5 1/2" DP from deck. Total 20 sgl. Oq.
09:00	POOH. Rack back 10 stds 5 1/2" DP.
09:30	P/U 8 sgl. 5 1/2" DP from deck.
10:00	POOH. Rack back 4 std 5 1/2" DP.
10:30	Extended drilling stand with 5 feet pup.
11:00	Perform SJA meeting.
12:00	Change from automatic rotary to manual slips.
14:30	M/U 36" BHA.
15:00	Bursted hydraulic hose on elevator. Repaired same.
16:00	Continue M/U 36" BHA.
16:30	Tested inclination tool.
19:00	Continue M/U 36" BHA.
20:00	RIH
21:30	Rebuild drilling stand.
22:00	Continue RIH, prepare and stab into hole on seabed .
23:59	Drill and survey 36" hole. From 244-282 m.

Daily report no : 4 Date: 1999-05-30
 Midnight depth : 293 m MD Estimated PP: sg Mud weight: 1.20 sg

Stop time	Description
00:30	Changed piston on MP#3. And trouble shoot electrical problem on MP#2.
03:00	Continue drill and survey 36" hole from 282-297 m, pump 15 m3 hivisc pill and displace out with SW.
03:30	Perform wiper trip to seabed.
04:00	Displace hole to 1.2 sg mud, tot. 33 m3.
07:00	POOH. Pump 6 m3 1.2 sg mud at 255 m.
07:30	Continue POOH.
09:00	L/D BHA. Break bit hole opener incl. tool and bit sub.

DAILY REPORT ON WELL 34/7-30 S

Daily report no : 4 Date: 1999-05-30
 Midnight depth : 293 m MD Estimated PP: sg Mud weight: 1.20 sg

Stop time	Description
09:30	L/D 10 feet pup jt. On drilling std.
10:00	M/U pump in sub and kelly cock in landing std.
12:00	R/U 30" csg. equipment. Installed guiding arm, change bushing/elevator. Skid PGB underneath rotary. Held safety meeting prior to running casing.
15:00	P/U 30" shoe. Checked float. Run 30" csg according to Tally. Filled casg w/ SW.
15:30	Remove elevator. Install wireslings onto balls.
17:00	P/U 30" housing.
19:00	Release R/T. M/U & run 38.30 m cmt stinger. Connect R/T to housing.
21:00	Continue to run casing on 5 1/2" DP. Connect runni ng tool to PGB at 19:45 hrs. Held SJA with crew.
21:30	Guideline winch No. 1 got wire stuck due to backlash on drum.
23:59	Continue to run 30" casing, stab in at 23:05 hrs, circulate down from 280-293 m TD. Land casing at 24:0 0.

Daily report no : 5 Date: 1999-05-31
 Midnight depth : 293 m MD Estimated PP: sg Mud weight: 1.20 sg

Stop time	Description
01:00	Adjusted rig to achieve 0.5 degrees on guidebase. Pumped one hole volume with seawater.
02:30	Pressure tested surface lines to 150 bar/10 min - OK. Mixed and pumped 12 m3 1.56 sg lead slurry followed by 7.3 m3 1.95 sg tail slurry. Displaced with 6.2 m3 seawater at max 1500 l/min using BJ pump.
12:00	Waited on cement. Attempted to relieve tension at 10:00 hrs - bulls-eye angle not stable.
15:00	Relieved tension and verified bulls-eye angle less than 1.0 degree. Released running tool and POOH. Laid down running tool and cement stinger.
16:30	Repaired hydraulic leak on rotary table.
18:30	Made up 18 3/4" wellhead housing with running tool and cement plugs. Laid down same on deck.
22:30	Made up 26" BHA and RIH to drill out 30" shoe. Rebuild drilling stand on way in.
23:00	Tested active compensation mode.
23:59	Attempted to stab in hole using active compen-sation mode - no success. Continued RIH in passive compensation mode. Tagged firm cement at 288 m.

Daily report no : 6 Date: 1999-06-01
 Midnight depth : 484 m MD Estimated PP: sg Mud weight: 1.20 sg

Stop time	Description
02:30	Drilled firm cement from 288 m to 293 m. Reamed shoetrack and washed rathole. Tagged bottom at 302 m.
03:00	Pumped 15 m3 hi-vis pill and displaced same. Placed 5 m3 1.2 sg mud in rathole.
05:30	POOH and broke out 26" BHA. Installed guideline no. 1 on guidebase.
08:30	Broke out cement head from 30" cement job. Made up cement stand for 13 3/8" cementing.
12:00	Made up 17 1/2" BHA.
12:30	Failure on lower guide arm. Reset PLC.
15:00	RIH with 17 1/2" BHA to seabed. Stabbed into wellhead and continued RIH to TD. Installed power slips.
23:59	Drilled and surveyed 17 1/2" hole from 302 m to 484 m.

Daily report no : 7 Date: 1999-06-02
 Midnight depth : 992 m MD Estimated PP: sg Mud weight: 1.20 sg

Stop time	Description
23:59	Drilled and surveyed 17 1/2" hole from 484 m to 992 m. Inclination survey every second stand using Anderdrift tool: 0.0 degree for all measurements. Performed kick drill with crew.

Daily report no : 8 Date: 1999-06-03
 Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.20 sg

Stop time	Description
07:30	Drilled and surveyed 17 1/2" hole from 992 m to 1148 m.
09:00	Pumped 10 m3 hi-vis pill and displaced hole to 1.20 sg mud.
13:00	Performed wiper trip to 30" shoe. Pumped through thight spots at 1063 m and 648 m. Max overpull of 30 ton. Also thight spots at 430-420 m and 350-330 m.
13:30	Tested active compensation mode.

DAILY REPORT ON WELL 34/7-30 S

Daily report no : 8 Date: 1999-06-03
Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.20 sg

Table with 2 columns: Stop time, Description. Rows include: 17:00 RIH to 1056 m. Washed down from 1056 m to 1083 m. Backreamed to 1047 m. Swept hole with hi-vis pill. 17:30 Changed from power slips to manual slips due to worn dies. 18:30 Pumped hi-vis pill and circulated out same. 23:00 Wahed and reamed hole from 1047 m to 1148 m. Tight hole/spots at 1066-1074 m and 1081-1088 m. Worked tight spots several times. 23:59 Pumped 10 m3 hi-vis pill. Circulated 1 1/2 times bottoms up. Pumped 7 m3 1.5 sg hi-vis pill.

Daily report no : 9 Date: 1999-06-04
Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.20 sg

Table with 2 columns: Stop time, Description. Rows include: 00:30 Circulated out 1.50 sg hi-vis pill with seawater. 01:30 Pulled out with 6 stands to 1057 m. Tight spot at 1107 m. 02:00 RIH to 1086 m. Tight hole - sat down 20 ton. 08:00 Reamed and washed hole from 1086 to 1148 m. Worked tight areas several times with high RPM. 09:30 Pumped 10 m3 hi-vis pill and displaced to annulus. Displaced hole to 1.20 sg mud. Placed 7 m3 1.50 sg hi-vis pill in bottom of hole. 10:00 Changed from manual slips to power slips. 13:30 POOH to wellhead. Thight spots at 996, 913 and 907 m. Performed kick drill with crew. 16:30 Washed wellhead and continued POOH. 18:30 Broke out pup joint from drilling stand. Made up same on cement stand. 21:00 Rigged up to run 13 3/8" casing. 22:00 Picked up shoe, spacer and float joints and made up same. Baker-locked first three connections. 23:59 Ran 13 3/8" casing to 230 m.

Daily report no : 10 Date: 1999-06-05
Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.20 sg

Table with 2 columns: Stop time, Description. Rows include: 05:00 Ran 13 3/8" casing from 230 m to 887 m. Stabbed into well at 00:15 hrs. Filled casing with seawater while running in. 07:00 Changed handling equipment. Picked up wellhead housing and made up same. Problems with engaging threads on housing due to top-heavy assembly. 10:30 Changed to manual slips and continued to run 13 3/8" casing on 5 1/2" landing string. Installed cement stand and landed wellhead at 10:30 hrs. 11:00 Circulated bottoms up with seawater. 15:30 Pressure tested surface lines to 200 bar. Mixed and pumped 116 m3 1.56 sg sg lead slurry and 15 m3 1.90 sg tail slurry. Dropped dart and displaced same down to plug hanger using BJ pump. 17:30 Unable to shear top plug from BJ pump. Changed to mud pumps - still not able to displace cement. Disconnected running tool with 50 ton overpull. Attempted to circulate - no success. 19:30 Moved rig to parking position. POOH with running tool. Broke out pup joint stinger, x-over and plug hanger. Found dart stuck in x-over above plug hanger. Measured ID of x-over to 2.5". Dart OD = 2.56". 22:30 Picked up one stand 3 1/2" DP and RIH with grouting stinger. Stabbed into grouting funnel on guide base. 23:30 Installed cement stand and RIH to 257 m. Tagged with 2 ton. 23:59 Pressure tested lines to 100 bar. Mixed and pumped 14 m3 1.90 sg cement slurry. Displaced down string with 2.9 m3.

Daily report no : 11 Date: 1999-06-06
Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.03 sg

Table with 2 columns: Stop time, Description. Rows include: 02:30 Rigged down hose and racked back cement stand. Pulled above guidebase. Flushed string and POOH. 04:00 Broke out and laid down cement stand. 07:00 Broke out and laid down 17 1/2" BHA. Cleared drillfloor. 13:00 Prepared to run BOP and riser. Installed riser handling equipment on drillfloor. Held prejob safety meeting. 20:00 Picked up x-over joint and 30 ft joint. Made up same. Skidded BOP into moonpool and made up x-over to BOP. Held safety meeting with night crew. Moved rig 30 m off location. 22:00 Lifted off BOP and skidded back carrier. Installed guidelines and clamped pod hoses. Ran BOP through splash zone at 21:55 hrs. 23:59 Continued running BOP and riser to 65 m.

DAILY REPORT ON WELL 34/7-30 S

Daily report no : 12 **Date:** 1999-06-07
Midnight depth : 1148 m MD **Estimated PP:** sg **Mud weight:** 1.03 sg

Stop time	Description
05:30	Continued running BOP and Riser from 65 m to 205 m. Pressure tested kill and choke lines to 30 bar/5 min, 345 bar/10 min at 110 m.
10:30	Installed slip joint and made up same. Installed landing joint and connected support ring.
11:00	Moved rig to wellcenter. Changed filters on main HPU feeder pumps.
12:30	Adjusted passive compensation low speed to desired weight. Switched to semi-active compensation when accumulators filled with fluid. Adjusted rig position and landed BOP on wellhead at 12:00 hrs. Continued lowering in semi-active mode until
17:30	Picked up diverter and installed same. Released diverter handling tool and laid down same. Rigged down riser handling equipment. Pressure tested kill and choke lines. Filled riser with seawater through booster line.
19:30	Made up wear bushing running tool with jet sub below. Not able to install wear bushing on running tool due to large OD of jet sub. Broke out wear bushing running tool.
22:30	Made up jet sub and bullnose on 5 1/2" DP. RIH and washed wellhead. POOH.
23:59	Made up wear bushing running tool and engaged wear bushing. RIH to set wear bushing.

Daily report no : 13 **Date:** 1999-06-08
Midnight depth : 1148 m MD **Estimated PP:** sg **Mud weight:** 1.03 sg

Stop time	Description
02:30	Continued RIH and set wearbushing. POOH and laid down running tool.
03:00	Rearranged setback for making up 12 1/4" BHA.
07:00	Made up 12 1/4" BHA and RIH to 259 m.
08:30	Iron roughneck stopped in auto sequence. Problem with emergency stop function and clamp pressure. Performed SJA for using manual rig tongs.
10:00	Continued RIH using manual rig tongs. Installed power slips. Repaired iron roughneck.
13:00	RIH from 551 to 747 m. Tagged cement with 8 tons. Performed kick drill with crew. Installed drilling stand.
14:00	Attempted to make connection - not able to tilt top drive. Troubleshoot failure and repaired - OK.
23:59	Drilled cement from 747 m to 985 m. Pumped hi-vis pill every 100 m.

Daily report no : 14 **Date:** 1999-06-09
Midnight depth : 1148 m MD **Estimated PP:** sg **Mud weight:** 1.03 sg

Stop time	Description
01:00	Drilled cement from 985 m to 1004 m.
02:00	Pumped 15 m3 Hi-vis pill and displaced same.
03:00	Closed upper pipe ram and pressure tested casing to 130 bar/10 min - OK.
03:30	Displaced well with 65 m3 inhibited seawater.
04:30	Unable to break out drilling stand. Broke out saver sub/kelly cock.
09:30	POOH and broke out 12 1/4" BHA.
11:30	Changed to 5 1/2" handling equipment. Cleared drillfloor. Installed new kelly cock and saver sub in topdrive.
12:00	Made up wear bushing retrieving tool with jet sub.
12:30	Repaired hydraulic leak on power slips. Changed damaged IBOP sleeve on top drive.
16:00	RIH and washed BOP with jet sub. Retrieved wear bushing and POOH. Laid down running tool.
18:30	Changed handling equipment. Installed diverter running tool and spider in rotary. Held prejob safety meeting for disconnecting LMRP.
20:00	Repaired hydraulic leakage in main HPU.
22:00	Prepared to pull LMRP. Retracted acoustic stabs. Held prejob meeting with nightcrew. Disconnected LMRP at 21:00 hrs. Released diverter lockdown dogs and stroked out innerbarrel. Activated semi-active compensation. Landed LMRP on stack with
23:59	Attempted to latch LMRP connector - no success. Lifted off LMRP. Activated connector - OK. Landed LMRP with 20 tons - unable to latch.

Daily report no : 15 **Date:** 1999-06-10
Midnight depth : 1148 m MD **Estimated PP:** sg **Mud weight:** 1.03 sg

Stop time	Description
00:30	Continued trouble shooting on connector problem. Unlatched LMRP and landed same with 40 tons weight down, latched successfully.
01:00	Got a glycol leak on main HPU, had to shut down one feeder pump (of 5 total).
02:00	Performed overpull test to 25 tons on LMRP with riser tensioner - ok.
05:00	Disconnected diverter from inner barrel. Secured diverter in canon. Diverter got stuck in canon, worked to free same. Changed from bails to slings on topdrive and lifted diverter free from canon. Landed diverter in canon.

DAILY REPORT ON WELL 34/7-30 S

Daily report no : 15 Date: 1999-06-10
 Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.03 sg

Stop time	Description
07:00	Guide wheels on shute broke off due to hard landing of diverter in canon, observed damages and prepared for repair.
09:00	Held safety meeting and welded guide wheels in end of shuttle.
09:30	Laid down diverter with shuttle using rig crane at end of shuttle.
11:00	Installed riser running tool. Picked up landing joint and locked inner barrel to slip joint.
12:30	Prepared to unlatch BOP, removed RBQ plate on podreels, held prejob meeting. Pulled BOP above posts on plate. Guideline 2 and 4 jumped out of posts when pulling BOP.
13:00	Moved rig 30 m off location.
14:00	Latched supporting to rotary housing, secured same and cleared out spooling on podreels.
15:30	Racked landing joint and slip joint.
16:30	Laid down 15' pup joint using winch and rig crane.
19:00	Pulled out and racked riser joints.
21:00	Took of riser guide from spider, closed riser hatches and moved iron roughneck to other side of drill floor. Pulled last riser joint and pulled BOP out of water at 20:50 hrs. Had thrusters running at full speed to keep rig steady. Lined kil
22:30	Continued pulling BOP out of water. Took off guide and pod lines. Stopped thrusters at 21:10 hrs.
23:59	Skidded BOP fork to center, had problems getting fork past slip joint which was racked in the set back area to close to skid beam. Twisted slip joint and continued skidding fork to center.

Daily report no : 16 Date: 1999-06-11
 Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.03 sg

Stop time	Description
00:30	Continued skidding BOP fork to center. Landed BOP at fork at 00:22 hrs. Disconnected riser.
02:00	Prepared to skid BOP to park position.
04:00	Skidded BOP to park position.
06:00	Pulled pod hose clear of rotary and laid down riser pup joint on pipe deck and racked back xo- joint.
07:00	Rigged down riser handling equipment.
08:00	Continued rigging down riser handling equipment. Skidded PGB pulling tool in to moonpool.
09:00	Made up xover and PBG pulling tool to 5 1/2" drill pipe. Installed guide rope.
09:30	Ran PGB pulling tool to 200 m. Meanwhile moved rig to well center.
10:30	Guide line no 1 jumped out of guide post when tensioned up wire. Attempted to reestablish same, no success. Left guide line no 1 in post with no tension. Pulled guide line no 2 and 4 to surface.
11:30	Continued running down with PGB pulling tool. Entered wellhead with tool, oriented the tool and latched on to PGB.
13:00	Released PGB from wellhead. Pulled out with PGB and landed same on skid.
14:00	Released pulling tool from PGB, broke tool off string and landed tool back on PGB.
14:30	Made up running tool for trawl protection cap.
16:00	Skidded trawl protection cap into moonpool. Installed sheave for hot line. Meanwhile, recovered 4 piggy back anchors.
17:00	Made up trawl protection cap on drill string. Pulled kill and choke line hoses clear of moonpool. Fastened hotline to trawl protection cap.
18:00	Ran in with trawl protection cap to above wellhead
20:00	Oriented rig above wellhead center. Landed trawl protection cap on wellhead at 19:25 hrs. Set down 8 ton, attempted to take overpull, no go.
20:30	ROV attempted to connect hot stab.
23:59	ROV got problem with manipulator arm, lost hot stab on bottom. ROV worked with hotstab, no success to connect hot stab. At 23:10 hrs hose on hot stab broke off. Made new attempts to take overpull on trawl protection cap, no go.

Daily report no : 17 Date: 1999-06-12
 Midnight depth : 1148 m MD Estimated PP: sg Mud weight: 1.03 sg

Stop time	Description
00:30	Continued trying to latch trawl protection cap to wellhead, not able to take overpull.
02:00	Released running tool from trawl protection cap. Pulled out and laid down running tool. Started deballasting rig at 00:30 hrs.
20:00	Anchorhandling: Anchor no 6 up at 03:00 hrs. Anchor no 2 up at 09:00 hrs. Anchor no 3 up at 11:00 hrs. Anchor no 7 up at 12:00 hrs. Anchor no 5 up at 16:00 hrs. Anchor no 4 up at 18:00 hrs. Anchor no 1 up at 18:13 hrs. Anchor no 8 up at

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 1 Date: 1999-11-11
 Midnight depth : 1142 m MD Estimated PP: sg Mud weight: 0.00 sg

Stop time	Description
23:59	Anchor no. 1 on bottom at 12:30 hrs. Anchor no. 8 on bottom at 16:12 hrs. Anchor no. 5 on bottom at 18:06 hrs. Anchor no. 2 on bottom at 22:30 hrs. Anchor no. 7 on bottom at 23:54 hrs.

Daily report no : 2 Date: 1999-11-12
 Midnight depth : 1142 m MD Estimated PP: sg Mud weight: 0.00 sg

Stop time	Description
03:30	Anchor no. 3 on bottom at 00:48 hrs. Anchor no. 6 on bottom at 03:00 hrs.
11:00	Connected new anchor to chain no. 4.
13:30	Ran anchor no. 4.
17:00	Ballasted rig.
19:00	While performing preliminary pull test on anchors, made up retrieving tool for trawl protection cap. RIW and latched tool to protection cap and pulled same free without overpull.
21:00	Landed trawl protection cap on carrier, sea fastened same and unlatched retrieving tool.
23:30	Prepared to run PGB.
23:59	RIW with PGB.

Daily report no : 3 Date: 1999-11-13
 Midnight depth : 1142 m MD Estimated PP: sg Mud weight: 0.00 sg

Stop time	Description
00:30	Moved rig over well.
03:30	Landed PGB on housing. Not able to latch PGB to 30" conductor housing.
04:00	Moved rig to parking area.
04:30	POOW with PGB.
06:00	Landed PGB on trolley. Modified PGB by removing guide skirt, antirotation pins and shear pins.
07:00	RIW with PGB
11:00	Landed PGB on housing. Made several attempts to lock PGB to 30" housing, NO GO. Measured distance from PGB to top wellhead to 0.76 m. Left PGB unlatched to 30" housing.
11:30	POOH with PGB running tool.
12:30	Laid down PGB running tool. Performed anchor pull test to 180 ton. Had to set piggy-back on anchor no.8
19:00	Rigged up riser handling equipment and prepared to run BOP.
20:00	Lifted BOP off carrier and installed guide lines.
23:59	RIW with BOP. Tested kill, choke and conduit lines Continued to run BOP.

Daily report no : 4 Date: 1999-11-14
 Midnight depth : 1142 m MD Estimated PP: sg Mud weight: 0.00 sg

Stop time	Description
01:30	Continued to run BOP.
05:30	Attempted to test kill, choke and conduit lines several times, No Go. Leak in seals in yellow conduit line, changed same.
10:30	Pressure tested yellow conduit line, OK. continued to run BOP.
12:30	Picked up tension jt. and connected suport ring.
13:00	Held safety meeting with all innvolved personnel prior to land BOP.
16:00	Landed BOP. Locked connector and performed 25 ton over-pull, OK. Laid down landing jt. Picked up diverter and installed same.
18:00	Pressure tested connector to 70 Bar, OK. Laid down riser running equipment. Installed torque assembly, bails and elevator to top-drive.
21:30	RIH with BOP test tool and tested connector to 35 bar/5 min-345 bar/10 min. OK.
23:30	Ran and installed seatprotector.
23:59	Started to make up 9 5/8" casing hanger.

Daily report no : 5 Date: 1999-11-15
 Midnight depth : 1177 m MD Estimated PP: sg Mud weight: 1.44 sg

Stop time	Description
01:30	Made up 9 5/8" csg hanger and racked same back in derrick.
02:30	Pressure tested IBOP and kelly cock to 35 bar/5 min 345 bar/10 min.

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 5 **Date:** 1999-11-15
Midnight depth : 1177 m MD **Estimated PP:** sg **Mud weight:** 1.44 sg

Stop time	Description
03:30	Picked up M.Motor and made up bit.
06:00	Picked up MWD and loaded same.
07:30	RIH with rest of BHA.
08:30	RIH to 950 m.
09:00	Filled pipe and function tested MWD and motor.
09:30	Performed choke drill.
10:00	Held pre-job meeting with all involved personnel prior to drill cement.
18:30	RIH to top of cement at 1001 m. Displaced well to 1.44 sg while drilling cement. Drilled shoe at 1134 Cleaned out rathole to 1143 m.
19:00	Drilled 12 1/4" hole to 1148 m.
20:00	Circulated bottoms up prior to FIT.
20:30	Displaced kill and choke lines to oil mud.
21:00	Attempted to perform FIT to 1.65 sg, leaked off at 1.64 sg.
23:59	Drilled and slided 12 1/4" hole from 1148 m to 1177 m.

Daily report no : 6 **Date:** 1999-11-16
Midnight depth : 1276 m MD **Estimated PP:** sg **Mud weight:** 1.44 sg

Stop time	Description
05:00	Drilled 12 1/4" hole from 1177 m to 1219 m.
08:30	Pumped slug and POOH. Changed bit.
09:30	Checked MWD.
11:00	RIH to casing shoe.
11:30	Filled pipe and tested MWD.
13:30	Sliped and cut drilling line.
14:00	Continued to RIH to 1219 m.
21:00	Drilled 12 1/4" hole from 1219 m to 1261 m.
21:30	Attempted to take survey several times, at the end OK.
23:59	Drilled 12 1/4" hole from 1261 m to 1276 m.

Daily report no : 7 **Date:** 1999-11-17
Midnight depth : 1365 m MD **Estimated PP:** sg **Mud weight:** 1.44 sg

Stop time	Description
10:30	Drilled 12 1/4" hole from 1276 m to 1365 m.
14:00	POOH. Observed 3 missing cones when bit out of hole.
15:00	Download MWD.
17:00	Changed motor in BHA.
19:30	Rearrange derrick to make space for 6 5/8" DP. Picked up 15 joints from deck and racked same back in derrick.
21:00	Prepared to run cement stinger. RIH 18 jts. 3 1/2" DP.
22:30	Continued to RIH with 5" DP.
23:00	Made up cement stand and racked same in derrick.
23:30	Continued to RIH with 5" DP to 1360 m.
23:59	Circulated to condition mud.

Daily report no : 8 **Date:** 1999-11-18
Midnight depth : 1262 m MD **Estimated PP:** sg **Mud weight:** 1.44 sg

Stop time	Description
00:30	Continued to condition mud and pumped 10 m 3 1.6 sg spacer.
01:30	Pumped 11.4 m 3 2.05 sg cement and displaced same with mud.
02:00	POOH to 1120 m.
03:00	Circulated hole clean.
05:00	POOH with cement stinger.
09:30	Picked up 11 jts 6 1/2" DC and jar. Racked same back in derrick.
10:30	Adjusted bend on motor to 1.4 deg.
11:00	Checked MWD.
14:00	RIH to 1120 m.

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 8 Date: 1999-11-18
 Midnight depth : 1262 m MD Estimated PP: sg Mud weight: 1.44 sg

Stop time	Description
15:30	Washed down from 1120 m to top of cement at 1229 m.
16:30	Dressed off cement plug from 1229 m to 1244 m.
23:59	Kicked off well by time-drill from 1244 m to 1262 m.

Daily report no : 9 Date: 1999-11-19
 Midnight depth : 1533 m MD Estimated PP: sg Mud weight: 1.45 sg

Stop time	Description
19:30	Drilled 12 1/4" hole from 1263 m to 1470 m. 100 % formation at 1267 m.
20:00	MWD problems - survey. Reset computer.
20:30	Drilled 12 1/4" hole from 1470 m to 1483 m.
21:00	MWD problems - toolface.
22:00	Drilled 12 1/4" hole from 1483 m to 1500 m.
22:30	MWD problems - survey.
23:59	Drilled 12 1/4" hole from 1500 m to 1533 m.

Daily report no : 10 Date: 1999-11-20
 Midnight depth : 1994 m MD Estimated PP: sg Mud weight: 1.49 sg

Stop time	Description
03:30	Drilled 12 1/4" hole from 1535 m to 1613 m.
04:30	Circulated hole clean prior to Balder.
06:00	Drilled 12 1/4" hole from 1613 m to 1642 m.
06:30	MWD problems, decoding.
22:00	Drilled 12 1/4" hole from 1662 m to 1994 m.
23:00	Circulated hole clean.
23:59	POOH.

Daily report no : 11 Date: 1999-11-21
 Midnight depth : 2298 m MD Estimated PP: sg Mud weight: 1.49 sg

Stop time	Description
02:00	POOH, flow check in 13 3/8" casing shoe.
02:30	Repaired IRON-Roughneck, electrical problems.
03:30	POOH to surface.
04:30	Dumped MWD while canged bit.
05:00	RIH with BHA.
06:00	RIH to 1100 m MD.
06:30	Fill pipe and tested MWD.
08:00	Continued to RIH to 1978 m MD.
08:30	Washed down from 1978 m to 1994 m.
09:00	Took SCR.
19:30	Drilled 12 1/2" hole from 1994 m to 2331 m MD.
20:30	Circulated and conditioned hole.
23:59	Drilled 12 1/4" hole from 2231 to 2298 m MD.

Daily report no : 12 Date: 1999-11-22
 Midnight depth : 2362 m MD Estimated PP: sg Mud weight: 1.53 sg

Stop time	Description
02:00	Continued drilling and surveying 12 1/4" hole from 2298 to 2362 m MD.
04:30	Circulate hole clean.
06:00	Flow check - negative. POOH to 1994 m. RIH to TD.
11:30	Circulate hole clean. Observed 24.5% trip gas. Increased mud weight to 1.53 SG. Flow checked - negative.
12:00	POOH to 2225 m MD
12:30	RIH to TD.
14:30	Circulated to reduce gas readings.

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 12 Date: 1999-11-22
 Midnight depth : 2362 m MD Estimated PP: sg Mud weight: 1.53 sg

Stop time	Description
18:30	Flow checked negative. POOH with 12 1/4" BHA. Flow checked - negative i 13 3/8" shoe. Continued to POOH. Flow checked negative prior to BHA entering BOP.
20:30	POOH with BHA. Laid down MWD and mud motor.
23:00	RIH and retrived wear bushing. POOH.
23:59	Prepared to run casing.

Daily report no : 13 Date: 1999-11-23
 Midnight depth : 2362 m MD Estimated PP: sg Mud weight: 1.53 sg

Stop time	Description
11:30	Continued to RIH with 9 5/8" casing.
13:00	Installed 20 ft bails and La Fleur.
13:30	Continued RIH with 9 5/8" casing.
14:30	Tested La Fleur without success. Laid down same.
15:00	Continued to RIH with 9 5/8" casing to 1210 m.
15:30	Changed to drilling bails.
23:30	Continued RIH with 9 5/8" casing.
23:59	Changed to 5" DP equipment and installed Hanger.

Daily report no : 14 Date: 1999-11-24
 Midnight depth : 2362 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
02:00	Installed cement stand and landed casing while pumping at low rate. Observed 100 % losses.
06:00	Pumped 12 m3 spacer. Pressure tested surface lines - OK. Pumped 15 m3 cement. Sheared wiper plug and displaced cement. Observed pressure increase when cement entered the open hole. Bumped plug and pressure tested casing to 345 bar/10 min -
08:00	Pressure tested BOP to 500 psi/5 min and 5000 psi/10 min - OK.
09:00	Released casing hanger RT with 30 tons OP. POOH with same.
11:00	RIH with wear bushing and set same.
12:00	Laid down DC and jar.
15:00	Made up and RIH with 8 1/2" BHA.
16:00	RIH with 8 1/2" BHA on 5" DP.
16:30	Tested MWD tool - OK.
18:00	Continued to RIH with 8 1/2" BHA to 2300 m.
18:30	Performed choke drill.
23:00	Tagged cement at 2315 m. Drilled cement and float equipment from 2315 m to 2357 m. Lost circulation compleately when bit entered open hole. Flow checked - negative.
23:59	POOH with 8 1/2" BHA.

Daily report no : 15 Date: 1999-11-25
 Midnight depth : 2362 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
02:30	Continued to POOH with 8 1/2" BHA.
07:00	RIH with 3,5" open ended drill pipe on 5" DP to 2353 m.
09:00	Leak tested surface lines - OK. Set 10 m3 of 1.90 cement as a ballanced plug. Observed partial returns. Total losses 5.5 m3 cement from cement entering open hole. 4.5 m3 available for squeeze.
10:00	POOH to 1980 m.
12:30	Squeezed 2 m3 of cement into the formation. Observed pressure increase on final squeeze. Maximum squeeze pressure 32 bars.
16:30	POOH with open ended pipe.
18:00	RIH with 8 1/2" BHA.
18:30	Laid down cement stand.
21:30	Continued to RIH with 8 1/2" BHA.
23:59	Tagged cement at 2284 m. Drilled hard cement from 2284 m to 2313 m.

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 16 Date: 1999-11-26
 Midnight depth : 2362 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
03:30	Drilled hard cement from 2312 m to 2345 m.
04:30	Circulated bottoms up.
07:30	POOH with 8 1/2" BHA.
16:30	Rigged up wire line equipment and ran CBL/USIT log.
17:00	Made up 8 1/2" bit and loaded MWD.
19:00	RIH with 8 1/2" BHA.
19:30	Tested MWD tool.
20:30	Continued RIH with 8 1/2" BHA.
23:59	Waiting on weather. RIH with hang off stand. Time Roll Pitch Heave Wind sp. Wind dir. Wave 20:30 4.1 4.5 4.0 25 212 6.8 22:00 7.3 6.4 6.3 36 215 11.9 24:00 5.8 5.6 5.8 33 216 13.6

Daily report no : 17 Date: 1999-11-27
 Midnight depth : 2362 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
15:30	Waiting on weather. Hung off pipe in wellhead and displaced riser to seawater. Time Roll Pitch Heave Wind sp Wind dir Wave 02:00 6.4 6.1 7.8 34 227 11.8 04:00 5.3 5.3 7.0 32 339 12.7 06:00 4.5
17:30	RIH and connected pipe to string hung off in well head. POOH with same.
18:00	Rebuildt hangoff stand.
18:30	RIH with 8 1/2" BHA from 2040 m to 2340 m.
21:30	Reduced rheology of mud.
22:00	Performed SCRs up riser and choke line.
23:30	Drilled cement from 2345 m to 2355 m. Flow checked well - negative. Cleaned out rat hole.
23:59	Drilled new formation 2362 m to 2364 m.

Daily report no : 18 Date: 1999-11-28
 Midnight depth : 2411 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
00:30	Drilled 8 1/2" hole from 2364 - 2365 m.
02:00	Circulated hole clean.
02:30	Performed FIT to 1.70 sg EMW.
08:30	Drilled 8 1/2" hole from 2365 - 2403m.
10:00	Circulated for samples.
10:30	Flowchecked, negative.
14:00	POOH. Flowchecked with BHA just below BOP, negative.
14:30	Downloaded MWD.
17:30	Held prejob safety meeting and picked up coring assembly.
20:30	RIH with coring assembly.
21:30	Filled pipe and circulated mud.
22:00	Continued RIH to 2355m.
23:30	Washed down for m 2355 - 2403m. Spaced out for coring. Dropped ball. Performed SCR.
23:59	Cut core no.1 from 2403 - 2411m.

Daily report no : 19 Date: 1999-11-29
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
02:30	Continued to cut core from 2411 m to 2448 m.
03:00	POOH with core.
03:30	Flow checked - negative in shoe.
08:00	Continued POOH with core. Flow checked - negative with BHA below BOP.
10:30	Held prejob safety meeting prior to laying down core. Laid down same.
11:00	Made up 8 1/2" BHA.
11:30	Loaded MWD tool.
14:30	Continued RIH with 8 1/2" BHA.
15:00	Filled pipe.
16:00	Continued RIH with 8 1/2" BHA to 2403 m.

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 19 Date: 1999-11-29
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
18:00	Reamed and logged 2403 m to 2448 m.
22:30	Drilled 8 1/2" hole from 2448 m to 2478 m.
23:59	Circulated bottoms up.

Daily report no : 20 Date: 1999-11-30
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
01:00	Performed a check trip to the shoe.
02:30	RIH and circulated bottoms up. Observed 0.25 % gas above background.
06:00	POOH with 8 1/2" BHA. Flow checked - negative with BHA below the shoe.
06:30	Downloaded MWD.
07:00	Racked BHA.
10:00	Rigged up for wire line logging.
15:30	RIH and logged PEX-AITH-DSI. POOH with log. Rigged down logging equipment.
17:00	Laid down core barrels.
19:00	Rigged up wire line for VSP log.
19:30	Waited on crane operations.
20:00	Attempted to lower VSP guns into the sea. Failed due to high wind, pitch and roll.
23:59	Waited on weather. Rig to survival draft 2100 hrs. Time Roll Pitch Heave Wind Sp. Wind Dir. Sea Ht. 20:00 4.1 4.5 3.6 20 304 8.3 22:00 4.9 3.8 4.4 29 321 10.5 24:00 4.8 4.6 4.0 28 306

Daily report no : 21 Date: 1999-12-01
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.60 sg

Stop time	Description
13:00	Waiting on weather. Time Roll Pitch Heave Wind sp. Wind dir. Sea ht. 02:00 4.4 4.7 4.3 23 305 9.8 04:00 4.7 4.1 5.9 22 299 12.9 06:00 3.8 5.8 6.2 22 311 12.9 08:00 5.1 4.3 4.8 2
14:00	Laid down VSP tool.
19:30	Picked up and prepared MDT tool. Tested same. Meanwhile ballasted rig to operational draft.
23:59	RIH and logged MDT. POOH with MDT tool.

Daily report no : 22 Date: 1999-12-02
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.53 sg

Stop time	Description
01:30	Rigged down wire line equipment.
03:00	Laid down MWD tool.
06:30	RIH with 3.5" DP on 5" DP to 2473 m.
07:00	Broke circulation.
08:00	Leak tested cement lines to 200 bar/10 min - OK. Pumped 5 m3 spacer, 9 m3 cement and 1.5 m3 spacer. Displaced with 17.7 m3 mud.
08:30	POOH to 2210 m.
10:00	Circulated bottoms up the long way. Checked for cement in returns.
13:30	POOH with cement stinger.
18:00	Rigged up wire line equipment. RIH with bridge plug and set same at 2194 m. POOH. Pressure tested bridge plug to 92 bar/10 min - OK. Rigged down wire line equipment.
19:30	RIH with 5 " DP to 1150 m.
20:30	Displaced well to 1.53 sg mud.
22:30	POOH with 5" DP.
23:59	RIH and retrieved wear bushing. POOH with same.

Daily report no : 23 Date: 1999-12-03
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.45 sg

Stop time	Description
03:30	RIH with cutting assy.
04:00	Cut casing at 1128 m. Flow checked - negative.

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 23 Date: 1999-12-03
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.45 sg

Stop time	Description
07:00	POOH with cutting assy. Observed losses when POOH. Maximum loss rate 20 m3/hr. Filled riser with 9 m3 base oil.
10:00	RIH with spear assy. Latched on to casing and pulled free with 30 tons OP. Flow checked - negative.
11:30	POOH with 5" DP.
12:00	Installed casing spider.
12:30	Unlatched spear assy and laid down same.
13:30	Prepared to lay down casing.
16:00	Laid down casing hanger and casing.
16:30	Repaired casing power tong.
21:00	Continued to lay down casing equipment.
22:00	Rigged down casing equipment. Meanwhile displaced riser to 1.45 sg mud.
23:59	RIH with Parabow. Lost a total of 46 m3 to the hole last 24 hrs.

Daily report no : 24 Date: 1999-12-04
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.45 sg

Stop time	Description
00:30	Continued to RIH with Parabow to 1162 m.
01:00	Set parabow at 1162 m.
03:00	Commenced displacing well to 1.45 sg. Observed gain in active system. Flow checked and closed in well. Observed no pressures. Continued displacing well to 1.45 sg. Max gas 5.2 %. Got back 22 m3 of previously lost mud during the displacement
04:00	Flow checked - negative. Leak tested surface lines to 200 bar/5 min - OK. Pumped 5.0 m3 spacer, 9.0 m3 cement, 0.7 m3 spacer and displaced with 0.7 m3 mud.
05:00	POOH to 950 m.
06:00	Circulated out excess cement.
07:30	POOH.
10:00	RIH with 12 1/4" BHA to 1043 m. Did not tag cement. POOH to 1025 m.
11:00	Circulated bottoms up.
12:30	WOC. Meanwhile laid down 6 1/2" DC.
18:00	WOC. Meanwhile POOH 10 stands and picked up 6 5/8" DP.
18:30	Broken coupling in iron roughneck. Held prejob safety meeting prior to manual pipe handling.
20:30	WOC. Continued to pick up 6 5/8" DP.
21:30	Tagged cement at 1027 m and weight tested same to 10 tons. Pressure tested cement plug to 92 bar/ 10 min - OK.
23:00	Displaced well to seawater.
23:59	POOH.

Daily report no : 25 Date: 1999-12-05
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.45 sg

Stop time	Description
01:30	Continued to POOH with 12 1/4" BHA.
03:00	Made up and RIH with 14 3/4" milling assy.
05:00	Landed mill at 244.2 m. Milled 20" x 13 3/8" crossover from 244.2 m to 246.6 m.
06:00	POOH with milling assy.
09:00	Made up and RIH with 17 1/2" flat bottom milling assy.
12:30	Commenced milling crossover at 244.0 m. Tagged 13 3/8" casing at 246.4 m.
14:00	POOH with milling assy.
18:00	Made up and RIH with cutting assy.
19:00	Landed swivel in WH and cut 13 3/8" casing at 297.0 m.
20:30	POOH with cutting assy.
23:59	Made up and RIH with spear assy. Engaged spear and POOH with 13 3/8" casing.

Daily report no : 26 Date: 1999-12-06
 Midnight depth : 2478 m MD Estimated PP: sg Mud weight: 1.45 sg

Stop time	Description
01:30	Released spear and racked same. Laid down 13 3/8" casing.
03:00	Made up and RIH with Parabow.

DAILY REPORT ON WELL 34/7-30 SR

Daily report no : 26 **Date:** 1999-12-06
Midnight depth : 2478 m MD **Estimated PP:** sg **Mud weight:** 1.45 sg

Stop time	Description
04:30	Pumped 10 m3 seawater. Set parabow at 490 m. Set a ballanced cement plug from 485 m to 270 m.
05:00	POOH to 250 m.
05:30	Circulate at maximum rate to wash BOP.
06:00	Continued to POOH.
08:00	Prepared to pull BOP and riser.
10:30	Disconnected diverter and laid down same. Disconnected BOP.
11:00	Moved rig to parking position.
12:00	Disconnected support ring and laid down landing joint.
19:00	Pulled and laid down slip joint. Pulled and laid down riser. Landed BOP on carrier. Meanwhile pulled piggy back anchor no. 8, 5 and 2. Made several attempts to fish pennant wire of piggy back no 3 without success.
22:00	Skidded back BOP. Laid down slick joint, crossover joint and riser handling equipment.
22:30	Installed torque equipment and 5" handling equipment.
23:59	Made up cutting and retrieving assy.

Daily report no : 27 **Date:** 1999-12-07
Midnight depth : 2478 m MD **Estimated PP:** sg **Mud weight:** 1.45 sg

Stop time	Description
01:00	Continued making up cutting and retrieving assy.
03:00	Installed lock clamps on MOST tool and connected BHA to guide lines.
08:00	Moved rig over well and RIH with cutting and retrieving assy. Landed out MOST tool on top of 18 3/4" WH housing. Cut 20" and 30" casings 5 m below seabed. Engaged MOST tool and pulled WH/PGB lose. Engaged locking clamps and POOH. Landed PGB
12:00	WOW to pull anchors. Meanwhile released and laid down WH and cutting and retrieving assy. Laid down 13 3/8" retrieving assy from derrick.
23:59	Commenced anchor handling. Rig debal. at 22:30 hrs. Anchor no. 3 disconnected on boat at 16:55 hrs. Anchor no. 6 on bolster at 22:00 hrs. Anchor no. 7 on bolster at 22:23 hrs. Chain no. 4 disconnected on boat at 21:15 hrs. Anchor no. 8 on

Daily report no : 28 **Date:** 1999-12-08
Midnight depth : 2478 m MD **Estimated PP:** sg **Mud weight:** 1.45 sg

Stop time	Description
17:00	Continued anchor handling. Anchor no. 2 on bolster at 15:22 hrs. Anchor no. 1 on bolster at 16:00 hrs. Anchor no. 5 on bolster at 17:00 hrs Meanwhile picked up and racked WOR and laid down 5" DP. END OF WELL.

HOLE DEVIATION

Well: 34/7-30 S Reference point: RKB ; 31.0 m ABOVE MSL
 Waterdepth: 213.0 m Vertical to: 243.9 m Total Depth: 1148.0 m MD
 Utm zone: 31 Central Median: 3' E Horizontal datum: ED50
 Template Centre Coordinates, UTM: North : m, East: m
 Wellhead Coordinates, UTM: North : 6792386.10 m, East: 455499.50 m
 Official Surveys: Y Track :
 Coordinates are measured from the wellhead centre.

Depth MD [m]	Inclination [Deg]	Direction [Deg]	Tool Type	#	Depth TVD [m]	Coordinates		Vert. Sect [m]	Dogleg [D/30m]	Build [D/30m]	Turn [D/30m]
						North [m]	East [m]				
244.00	0.00	0.00	MWD	1	244.00	0.00	0.00	0.00	0.00	0.00	0.00
261.00	0.79	227.86	MWD	1	261.00	-0.08	-0.09	0.12	1.39	1.39	-233.19
280.00	1.19	223.00	MWD	1	280.00	-0.31	-0.32	0.45	0.64	0.63	-7.67
300.00	1.08	218.85	MWD	1	299.99	-0.61	-0.58	0.84	0.21	-0.17	-6.23
306.00	1.14	211.14	MWD	1	305.99	-0.70	-0.64	0.96	0.80	0.30	-38.55
339.00	0.90	213.35	MWD	1	338.99	-1.20	-0.96	1.54	0.22	-0.22	2.01
358.00	0.92	208.00	MWD	1	357.98	-1.46	-1.11	1.84	0.14	0.03	-8.45
378.00	0.75	213.70	MWD	1	377.98	-1.71	-1.26	2.12	0.28	-0.26	8.55
396.00	0.78	211.18	MWD	1	395.98	-1.91	-1.39	2.36	0.07	0.05	-4.20
416.00	0.72	202.90	MWD	1	415.98	-2.15	-1.51	2.62	0.19	-0.09	-12.42
436.00	0.50	211.47	MWD	1	435.98	-2.34	-1.60	2.83	0.36	-0.33	12.86
456.00	0.47	230.90	MWD	1	455.98	-2.46	-1.71	3.00	0.25	-0.05	29.15
475.00	0.49	223.93	MWD	1	474.98	-2.57	-1.83	3.15	0.10	0.03	-11.01
495.00	0.40	207.40	MWD	1	494.98	-2.69	-1.92	3.31	0.23	-0.14	-24.80
514.00	0.42	220.46	MWD	1	513.97	-2.81	-1.99	3.44	0.15	0.03	20.62
534.00	0.38	231.71	MWD	1	533.97	-2.90	-2.09	3.58	0.13	-0.06	16.88
553.00	0.49	201.99	MWD	1	552.97	-3.02	-2.17	3.72	0.39	0.17	-46.93
573.00	0.27	195.31	MWD	1	572.97	-3.14	-2.22	3.85	0.34	-0.33	-10.02
586.00	0.34	207.35	MWD	1	585.97	-3.21	-2.24	3.91	0.22	0.16	27.78

HOLE DEVIATION

Well: 3477-30 SR Reference point: RKB ; 25.0 m ABOVE MSL
 Waterdepth: 213.0 m Vertical to: 237.9 m Total Depth: 2478.0 m MD
 Utm zone: 31 Central Median: 3' E Horizontal datum: ED50
 Template Centre Coordinates, UTM: North : m, East : m
 Wellhead Coordinates, UTM: North : 6792386.10 m, East : 455499.50 m
 Official Surveys: Y Track : T2
 Coordinates are measured from the wellhead centre.

Depth MD [m]	Incli- nation [Deg]	Direc- tion [Deg]	Tool Type	#	Depth TVD [m]	Coordinates		Vert. Sect [m]	Dogleg [D/30m]	Build [D/30m]	Turn [D/30m]
						North [m]	East [m]				
238.00	0.00	0.00	MWD	2	238.00	0.00	0.00	0.00	0.00	0.00	0.00
261.00	0.79	227.86	MWD	2	261.00	-0.11	-0.12	0.16	1.03	1.03	-172.36
280.00	1.19	223.00	MWD	2	280.00	-0.34	-0.35	0.49	0.64	0.63	-7.67
300.00	1.08	218.85	MWD	2	299.99	-0.64	-0.61	0.88	0.21	-0.17	-6.23
306.00	1.14	211.14	MWD	2	305.99	-0.73	-0.68	1.00	0.80	0.30	-38.55
339.00	0.90	213.35	MWD	2	338.99	-1.23	-0.99	1.58	0.22	-0.22	2.01
358.00	0.92	208.80	MWD	2	357.98	-1.49	-1.14	1.88	0.12	0.03	-7.18
378.00	0.75	213.70	MWD	2	377.98	-1.74	-1.29	2.17	0.28	-0.26	7.35
396.00	0.78	211.18	MWD	2	395.98	-1.94	-1.42	2.41	0.07	0.05	-4.20
416.00	0.72	202.90	MWD	2	415.98	-2.17	-1.54	2.66	0.19	-0.09	-12.42
436.00	0.50	211.47	MWD	2	435.98	-2.36	-1.64	2.87	0.36	-0.33	12.86
456.00	0.47	230.90	MWD	2	455.98	-2.49	-1.75	3.04	0.25	-0.05	29.15
475.00	0.49	223.93	MWD	2	474.98	-2.60	-1.86	3.20	0.10	0.03	-11.01
495.00	0.40	207.40	MWD	2	494.98	-2.72	-1.95	3.35	0.23	-0.14	-24.80
514.00	0.42	220.46	MWD	2	513.97	-2.83	-2.03	3.48	0.15	0.03	20.62
534.00	0.38	231.71	MWD	2	533.97	-2.93	-2.13	3.62	0.13	-0.06	16.88
553.00	0.49	201.99	MWD	2	552.97	-3.04	-2.21	3.76	0.39	0.17	-46.93
573.00	0.27	195.31	MWD	2	572.97	-3.17	-2.25	3.89	0.34	-0.33	-10.02
586.00	0.34	207.35	MWD	2	585.97	-3.23	-2.28	3.95	0.22	0.16	27.78
1143.00	0.58	331.50	MWD	2	1142.96	-2.22	-4.38	4.91	0.04	0.01	6.69
1171.00	0.80	320.90	MWD	2	1170.96	-1.95	-4.57	4.97	0.27	0.24	-11.36
1197.00	1.00	303.80	MWD	2	1196.96	-1.68	-4.88	5.16	0.38	0.23	-19.73
1249.00	3.20	253.90	MWD	2	1248.92	-1.83	-6.65	6.90	1.54	1.27	-28.79
1266.00	4.80	233.00	MWD	2	1265.88	-2.39	-7.67	8.04	3.78	2.82	-36.88
1276.00	5.00	231.60	MWD	2	1275.85	-2.91	-8.35	8.84	0.70	0.60	-4.20
1287.00	5.20	231.20	MWD	2	1286.80	-3.52	-9.11	9.77	0.55	0.55	-1.09
1316.00	5.30	227.70	MWD	2	1315.68	-5.25	-11.13	12.30	0.35	0.10	-3.62
1344.00	6.60	239.80	MWD	2	1343.53	-6.93	-13.48	15.15	1.93	1.39	12.96
1373.00	7.60	241.90	MWD	2	1372.31	-8.67	-16.61	18.73	1.07	1.03	2.17
1400.00	9.20	244.00	MWD	2	1399.02	-10.46	-20.12	22.68	1.81	1.78	2.33
1431.00	11.50	247.60	MWD	2	1429.51	-12.72	-25.21	28.23	2.31	2.23	3.48
1461.00	13.10	246.30	MWD	2	1458.82	-15.23	-31.09	34.61	1.62	1.60	-1.30
1487.00	16.00	249.10	MWD	2	1483.98	-17.69	-37.13	41.13	3.44	3.35	3.23
1515.00	18.40	248.90	MWD	2	1510.73	-20.66	-44.86	49.39	2.57	2.57	-0.21
1543.00	20.40	248.20	MWD	2	1537.14	-24.06	-53.52	58.68	2.16	2.14	-0.75
1574.00	22.40	246.80	MWD	2	1566.00	-28.39	-63.96	69.98	2.00	1.94	-1.35

HOLE DEVIATION

Well: 34/7-30 SR Reference point: RKB ; 25.0 m ABOVE MSL
 Waterdepth: 213.0 m Vertical to: 237.9 m Total Depth: 2478.0 m MD
 Utm zone: 31 Central Median: 3' E Horizontal datum: ED50
 Template Centre Coordinates, UTM: North : m, East: m
 Wellhead Coordinates, UTM: North : 6792386.10 m, East: 455499.50 m
 Official Surveys: Y Track : T2
 Coordinates are measured from the wellhead centre.

Depth MD [m]	Incli- nation [Deg]	Direc- tion [Deg]	Tool Type	#	Depth TVD [m]	Coordinates		Vert. Sect [m]	Dogleg [D/30m]	Build [D/30m]	Turn [D/30m]
						North [m]	East [m]				
1600.00	24.30	245.40	MWD	2	1589.87	-32.57	-73.38	80.29	2.28	2.19	-1.62
1628.00	26.70	245.40	MWD	2	1615.14	-37.59	-84.34	92.34	2.57	2.57	0.00
1657.00	28.70	247.30	MWD	2	1640.82	-42.99	-96.69	105.82	2.26	2.07	1.97
1683.00	31.30	247.80	MWD	2	1663.33	-47.95	-108.70	118.81	3.01	3.00	0.58
1715.00	34.40	246.70	MWD	2	1690.21	-54.67	-124.71	136.16	2.96	2.91	-1.03
1744.00	37.50	245.90	MWD	2	1713.69	-61.52	-140.29	153.19	3.24	3.21	-0.83
1774.00	39.70	245.60	MWD	2	1737.13	-69.20	-157.36	171.90	2.21	2.20	-0.30
1802.00	40.70	246.60	MWD	2	1758.52	-76.52	-173.88	189.97	1.28	1.07	1.07
1829.00	42.70	246.50	MWD	2	1778.67	-83.67	-190.36	207.93	2.22	2.22	-0.11
1858.00	44.50	245.90	MWD	2	1799.67	-91.74	-208.65	227.93	1.91	1.86	-0.62
1887.00	44.60	245.90	MWD	2	1820.34	-100.05	-227.22	248.28	0.10	0.10	0.00
1914.00	45.10	245.20	MWD	2	1839.48	-107.93	-244.56	267.32	0.78	0.56	-0.78
1942.00	44.60	245.60	MWD	2	1859.33	-116.15	-262.51	287.06	0.62	-0.54	0.43
1970.00	44.70	245.70	MWD	2	1879.25	-124.27	-280.44	306.74	0.13	0.11	0.11
1999.00	46.40	245.20	MWD	2	1899.56	-132.87	-299.27	327.44	1.80	1.76	-0.52
2028.00	45.70	245.00	MWD	2	1919.69	-141.66	-318.21	348.31	0.74	-0.72	-0.21
2057.00	45.60	245.60	MWD	2	1939.96	-150.32	-337.05	369.05	0.46	-0.10	0.62
2085.00	46.70	245.70	MWD	2	1959.36	-158.65	-355.44	389.24	1.18	1.18	0.11
2114.00	46.20	245.20	MWD	2	1979.34	-167.38	-374.56	410.26	0.64	-0.52	-0.52
2143.00	45.70	244.50	MWD	2	1999.50	-176.24	-393.43	431.10	0.73	-0.52	-0.72
2172.00	43.90	244.70	MWD	2	2020.08	-185.01	-411.88	451.53	1.87	-1.86	0.21
2199.00	42.20	243.50	MWD	2	2039.81	-193.05	-428.46	469.95	2.10	-1.89	-1.33
2228.00	39.20	242.90	MWD	2	2061.79	-201.58	-445.34	488.84	3.13	-3.10	-0.62
2256.00	36.90	244.30	MWD	2	2083.84	-209.25	-460.80	506.08	2.63	-2.46	1.50
2284.00	35.30	243.70	MWD	2	2106.46	-216.48	-475.63	522.57	1.76	-1.71	-0.64
2313.00	33.50	242.80	MWD	2	2130.39	-223.85	-490.26	538.95	1.93	-1.86	-0.93
2339.00	33.00	242.90	MWD	2	2152.13	-230.36	-502.94	553.19	0.58	-0.58	0.12
2390.00	32.50	242.80	MWD	2	2195.03	-242.95	-527.49	580.75	0.30	-0.29	-0.06
2432.00	32.50	244.30	MWD	2	2230.45	-253.00	-547.69	603.31	0.58	0.00	1.07
2466.00	32.70	243.90	MWD	2	2259.09	-261.00	-564.17	621.62	0.26	0.18	-0.35

5 CEMENT ADDITIVES

5.1 Cement Consumption

5.2 Cement Slurry Report

5.3 Total Consumption of Cement Additives

CEMENT CONSUMPTION PER JOB ON WELL 34/7-30 S PO: 1

Date	CsgSize	Job Type	Cement/ Additive	Description	Unit	Actual Amount Used
1999-05-06	30"	GROUT	FP-9L	SPECIAL ADDITIVE: DEFOAMER		38
1999-05-31	30"	CASING CEMENTING	A-3L	EXTENDER: LIQUID LODENSE		330
			A-7L	ACCELERATOR: LIQUID CACL2		332
			FP-9L	SPECIAL ADDITIVE: DEFOAMER		40
1999-06-05	13 3/8"	CASING CEMENTING	A-3L	EXTENDER: LIQUID LODENSE		3419
			FP-9L	SPECIAL ADDITIVE: DEFOAMER		
			R-12L	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 [124
			R-15L	RETARDER: HIGH TEMP. BETWEEN 93 AND 149 DE		660

CEMENT CONSUMPTION PER JOB ON WELL 34/7-30 SR PO: 1

Date	CsgSize	Job Type	Cement/ Additive	Description	Unit	Actual Amount Used
1999-11-18	9 5/8"	PLUG IN CASED TO OPEN HOLE	CD-31L	DISPERSANT: CD-31L LIQUID		162
			FP14L	FP-14L		41
			R-12L	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 [61
1999-11-24	9 5/8"	CASING CEMENTING	CD-31L	DISPERSANT: CD-31L LIQUID		150
			FL-45L	FLUID-LOSS ADDITIVE: BETWEEN 38 AND 177 DEC		25
			FP14L	FP-14L		40
			MICRO	SPECIAL ADDITIVE: MICROBLOCK, ANTI GAS MIGF		2260
1999-11-25	9 5/8"	SQUEEZE	R-12L	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 [150
			FP-14L	SPECIAL ADDITIVE: DEFOAMER FP-14L		25
			R-12L	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 [70
1999-12-02	9 5/8"	PLUG IN CASED TO OPEN HOLE	CD-31L	DISPERSANT: CD-31L LIQUID		100
			FL45LN	FLUID-LOSS ADDITIVE: BETWEEN 38 AND 177 DEC		30
			FP14L	FP-14L		30
			MICRO	SPECIAL ADDITIVE: MICROBLOCK, ANTI GAS MIGF		1420
1999-12-04	9 5/8"	PLUG IN CASED HOLE	R-12L	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 [140
			FP14L	FP-14L		15
			R-12L	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 [22
1999-12-05	30"	PLUG IN CASED TO OPEN HOLE	A-3L	EXTENDER: LIQUID LODENSE		300
			FP-14L	SPECIAL ADDITIVE: DEFOAMER FP-14L		15
			R-15L	RETARDER: HIGH TEMP. BETWEEN 93 AND 149 DE		22

CEMENT SLURRY REPORT ON WELL 34/7-30 S PO: 1

Date	CsgSize	Jobtype	Slurry Type	Pumped Volume [m3]	Density [sg]	BHCT [DegC]	Yield [l/100 kg]	Additive	Unit	Additives [./100 kg Cement]	Additives [./m3 Slurry]
1999-05-06	30"	GROUT	TAIL SLURRY	14.00	1.90	8.00	74.71	FP-9L	l		
			DISPLACEMENT			8.00					
1999-05-31	30"	CASING CEMENTING	DISPLACEMENT	6.20	1.03	8.00					
			TAIL SLURRY	7.30	1.95	8.00	74.71	FP-9L	l	0.20	
			LEAD	12.00	1.56	8.00	129.57	A-7L FP-9L	l	3.55 0.20	
			LEAD	116.00	1.56	31.00	130.00	A-3L FP-9L	l	3.55 0.20	
1999-06-05	13 3/8"	CASING CEMENTING	LEAD					R-15L	l	0.90	
			TAIL SLURRY	15.00	1.90	31.00	76.67	FP-9L R-12L	l	0.20 0.50	

CEMENT SLURRY REPORT ON WELL 34/7-30 SR PO: 1

Date	CsgSize	Jobtype	Slurry Type	Pumped Volume [m3]	Density [sg]	BHCT [DegC]	Yield [l/100 kg]	Additive	Unit	Additives [./100 kg Cement]	Additives [./m3 Slurry]
1999-11-18	9 5/8"	PLUG IN CASED TO OPEN HOLE	DISPLACEMENT		1.44	41.00	0.00				
			TAIL SLURRY	11.40	2.05	41.00	65.86	FP14L	I	0.20	
								CD-31L	I	0.80	
								R-12L	I	0.30	
			MCS-G SPACER	10.00	1.60	41.00					
1999-11-24	9 5/8"	CASING CEMENTING	DISPLACEMENT			56.00					
			TAIL SLURRY	15.00	1.90	56.00	82.49	CD-31L	I	0.80	
								FP14L	I	0.20	
								R-12L	I	0.80	
								MICRO	I	12.00	
								FL-45L	I	7.00	
1999-11-25	9 5/8"	SQUEEZE	MCS-G SPACER		1.75	56.00					
			DISPLACEMENT			63.00					
			TAIL SLURRY	10.00	1.90	63.00	76.75	FP-14L	I	0.20	
								R-12L	I	0.75	
1999-12-02	9 5/8"	PLUG IN CASED TO OPEN HOLE	WATER BASED MUD SPACER (WEIGHTED)	5.00	1.70	68.00					
			WATER BASED MUD SPACER (WEIGHTED)	17.70	1.53	68.00					
			LEAD	9.00	1.90	68.00	80.56	CD-31L	I	0.50	
								FL45LN	I	3.50	
								FP14L	I	0.20	
								MICRO	I	8.00	
								R-12L	I	0.90	
			WATER BASED MUD SPACER (WEIGHTED)	1.50	1.70	68.00					
			DISPLACEMENT			68.00					

TOTAL CONSUMPTION OF CEMENT ADDITIVES ON WELL 347-30 S PO: 1

Section	Cement/Additive	Unit	Total Amount Used
36"	SPECIAL ADDITIVE: DEFOAMER		78.00
	ACCELERATOR: LIQUID CACL2		332.00
	EXTENDER: LIQUID LODENSE		330.00
17 1/2"	SPECIAL ADDITIVE: DEFOAMER		
	RETARDER: HIGH TEMP. BETWEEN 93 AND 149 DEGC		660.00
	EXTENDER: LIQUID LODENSE		3419.00
	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 DEGC		124.00

TOTAL CONSUMPTION OF CEMENT ADDITIVES ON WELL 34/7-30 SR PO: 1

Section	Cement/Additive	Unit	Total Amount Used
28"	EXTENDER: LIQUID LODENSE		300.00
	SPECIAL ADDITIVE: DEFOAMER FP-14L		15.00
	RETARDER: HIGH TEMP. BETWEEN 93 AND 149 DEGC		22.00
12 1/4"	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 DEGC		233.00
	FLUID-LOSS ADDITIVE: BETWEEN 38 AND 177 DEGC		25.00
	FP-14L		96.00
	DISPERSANT: CD-31L LIQUID		312.00
	SPECIAL ADDITIVE: MICROBLOCK, ANTI GAS MIGRATION		2260.00
8 1/2"	DISPERSANT: CD-31L LIQUID		100.00
	FLUID-LOSS ADDITIVE: BETWEEN 38 AND 177 DEGC		30.00
	SPECIAL ADDITIVE: DEFOAMER FP-14L		25.00
	FP-14L		30.00
	SPECIAL ADDITIVE: MICROBLOCK, ANTI GAS MIGRATION		1420.00
	RETARDER: LIQUID LIGNOSULFONATE UP TO 93 DEGC		210.00

6 MUD PARAMETERS / CONSUMPTION

6.1 Daily Mud Properties

6.2 Total Consumption of Mud Additives

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS FOR WELL 3477-30 S PO: 1

Hole section : 36"

WATER BASED SYSTEM

Date	Depth [m]	MD	TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings						Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel10 [Pa]	Gel10 [Pa]
								60	100	200	300	600	3					
1999-05-27	294			DATA FROM SAGA	0.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-05-28	600			DATA FROM SAGA	0.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-05-29	600			DATA FROM SAGA	0.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-05-30	600			DATA FROM SAGA	0.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-05-31	600			DATA FROM SAGA	0.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0

Hole section : 17 1/2"

WATER BASED SYSTEM

Date	Depth [m]	MD	TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings						Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel10 [Pa]	Gel10 [Pa]
								60	100	200	300	600	3					
1999-06-01	484			DATA FROM SAGA	100.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-02	992			DATA FROM SAGA	100.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-03	1148			DATA FROM SAGA	100.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-04	1148			DATA FROM SAGA	100.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-05	1148			DATA FROM SAGA	100.0	1.20		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-06	1148			DATA FROM SAGA	120.0	1.03		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-07	1148			DATA FROM SAGA	120.0	1.03		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-08	985			DATA FROM SAGA	115.0	1.03		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0

Hole section : 12 1/4"

WATER BASED SYSTEM

Date	Depth [m]	MD	TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings						Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel10 [Pa]	Gel10 [Pa]
								60	100	200	300	600	3					
1999-06-09	1004			DATA FROM SAGA	115.0	1.03		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-10	1004			DATA FROM SAGA	115.0	1.03		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-11	1004			DATA FROM SAGA	115.0	1.03		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
1999-06-12	1004			DATA FROM SAGA	115.0	1.03		0	0	0	0	0	0	0	0.0	0.0	0.0	0.0

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS FOR WELL 34/7-30 SR PO: 1

Hole section : 12 1/4"

ALTERNATE BASED SYSTEM

Date	Depth [m]	Mud Type	Funnel Visc [sec]	Dens Mudtmp Out [sg]	Fann Readings					Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel10 [Pa]			
					600	300	200	100	60					30	6	3
1999-11-15	1177	NOVATEC	78.0	1.44	76	49	39	28	0	0	12	10	27.0	10.5	7.2	10.5
1999-11-16	1276	NOVATEC	68.0	1.44	82	52	41	29	0	0	12	11	30.0	10.5	6.7	10.5
1999-11-17	1365	NOVATEC	71.0	1.44	83	53	42	29	0	0	12	11	30.0	11.0	7.7	11.0
1999-11-18	1262	NOVATEC	85.0	1.44	85	54	43	31	0	0	12	11	31.0	11.0	7.2	11.0

Hole section : 12 1/4"

WATER BASED SYSTEM

Date	Depth [m]	Mud Type	Funnel Visc [sec]	Dens Mudtmp Out [sg]	Fann Readings					Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel10 [Pa]			
					600	300	200	100	60					30	6	3
1999-11-19	1533	DATA FROM SAGA	0.0	1.45	0	0	0	0	0	0	0	0	29.0	13.9	8.6	11.5
1999-11-20	1994	DATA FROM SAGA	69.0	1.49	89	58	47	32	0	0	14	13	31.0	12.9	8.6	12.5
1999-11-21	2298	DATA FROM SAGA	75.0	1.49	94	63	50	35	0	0	14	13	31.0	15.3	8.6	12.5
1999-11-22	2362	DATA FROM SAGA	80.0	1.53	94	63	50	35	0	0	14	13	34.0	13.9	9.1	13.4
1999-11-23	2362	DATA FROM SAGA	86.0	1.53	97	63	48	37	0	0	16	14	34.0	13.9	9.1	13.4
1999-11-24	2362	DATA FROM SAGA	89.0	1.60	94	62	48	37	0	0	15	13	32.0	14.4	9.1	13.4

Hole section : 8 1/2"

WATER BASED SYSTEM

Date	Depth [m]	Mud Type	Funnel Visc [sec]	Dens Mudtmp Out [sg]	Fann Readings					Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel10 [Pa]			
					600	300	200	100	60					30	6	3
1999-11-25	2362	DATA FROM SAGA	82.0	1.60	82	50	86	32	0	0	14	13	31.0	11.5	7.7	11.5
1999-11-26	2362	DATA FROM SAGA	82.0	1.60	82	50	86	32	0	0	14	13	31.0	11.5	7.7	11.5
1999-11-27	2364	DATA FROM SAGA	71.0	1.60	75	48	38	27	0	0	12	12	27.0	10.1	6.7	10.5
1999-11-28	2411	DATA FROM SAGA	71.0	1.60	75	48	40	29	0	0	0	0	27.0	10.1	7.2	10.5
1999-11-29	2478	DATA FROM SAGA	75.0	1.60	76	49	41	30	0	0	13	12	27.0	10.5	7.2	11.5
1999-11-30	2478	DATA FROM SAGA	74.0	1.60	75	48	42	30	0	0	13	11	27.0	10.1	7.7	11.0
1999-12-01	2478	DATA FROM SAGA	75.0	1.60	76	49	41	30	0	0	13	12	27.0	10.5	7.2	11.5
1999-12-02	2478	DATA FROM SAGA	66.0	1.53	67	43	37	28	0	0	12	11	24.0	9.1	6.2	9.6

Hole section : 0.0

WATER BASED SYSTEM

Date	Depth [m]	Mud Type	Funnel Visc [sec]	Dens Mudtmp Out [sg]	Fann Readings					Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel10 [Pa]			
					600	300	200	100	60					30	6	3
1999-12-03	0	DATA FROM SAGA	58.0	1.45	60	40	34	24	0	0	11	10	20.0	9.6	5.7	8.6

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 347-30 S PO: 1

WATER BASED SYSTEM

Hole section : 36"

Date	Depth [m]	Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity		Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid Oil Sand [%]	CEC [Kg/m3]	ASG LGS [sg][Kg/m3]	
				API [mm]	HPHT [mm]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]										Mf [ml]
1999-05-27	294	DATA FROM SAG,	1.20	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-05-28	600	DATA FROM SAG,	1.20	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-05-29	600	DATA FROM SAG,	1.20	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-05-30	600	DATA FROM SAG,	1.20	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-05-31	600	DATA FROM SAG,	1.20	9.8	0.0	1	0	/	10.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0

WATER BASED SYSTEM

Hole section : 17 1/2"

Date	Depth [m]	Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity		Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid Oil Sand [%]	CEC [Kg/m3]	ASG LGS [sg][Kg/m3]	
				API [mm]	HPHT [mm]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]										Mf [ml]
1999-06-01	484	DATA FROM SAG,	1.20	7.6	0.0	1	0	/	10.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-02	992	DATA FROM SAG,	1.20	7.6	0.0	1	0	/	10.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-03	1148	DATA FROM SAG,	1.20	7.6	0.0	1	0	/	10.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-04	1148	DATA FROM SAG,	1.20	7.6	0.0	1	0	/	10.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-05	1148	DATA FROM SAG,	1.20	7.6	0.0	1	0	/	10.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-06	1148	DATA FROM SAG,	1.03	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-07	1148	DATA FROM SAG,	1.03	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-08	985	DATA FROM SAG,	1.03	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0

WATER BASED SYSTEM

Hole section : 12 1/4"

Date	Depth [m]	Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity		Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid Oil Sand [%]	CEC [Kg/m3]	ASG LGS [sg][Kg/m3]	
				API [mm]	HPHT [mm]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]										Mf [ml]
1999-06-09	1004	DATA FROM SAG,	1.03	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-10	1004	DATA FROM SAG,	1.03	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-11	1004	DATA FROM SAG,	1.03	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0
1999-06-12	1004	DATA FROM SAG,	1.03	0.0	0.0	0	0	/	0.0	0.0	0.0	0.0	0	0	0	0	0	0.0	0.0	0	0

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 34/7 -30 SR PO: 1

Hole section : 12 1/4"

ALTERNATE BASED SYSTEM

Date	Depth [m]	Mud Type	Density [sg]	Filtrate HPHT [mm]	Filtcake HPHT [mm]	HPHT Press [bar/DegC]	Electrical stability [V]	Alkalinity Pm [ml]	CaCl2 [mg/l]	Oil/Water Ratio	Solid [%]	Percentage Oil Sand [%]	ASG [sg]	LGS [Kg/m3]
	MD	TVD												
1999-11-15	1177	1177	NOVATEC	1.44	7.0	0	590	0.0	65/35	19.0	53.0	0.0	34	
1999-11-16	1276	1276	NOVATEC	1.44	4.5	0	660	0.0	65/35	19.0	53.0	0.0	34	
1999-11-17	1365	1364	NOVATEC	1.44	6.0	0	610	0.0	65/35	19.5	52.5	0.0	44	
1999-11-18	1262	1262	NOVATEC	1.44	6.5	0	610	0.0	65/35	20.0	52.0	0.0	48	

Hole section : 12 1/4"

WATER BASED SYSTEM

Date	Depth [m]	Mud Type	Dens [sg]	Filtrate API [mm]	Filtcake API [mm]	HPHT Press [bar/DegC]	pH	Alkalinity Pm [ml]	Pf [ml]	Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid Oil Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	
	MD	TVD																			
1999-11-19	1533	1528	DATA FROM SAG.	6.8	0.0	0	0.0	0.0	0.0	0.0	0.0	136	0	0	0	0	20.0	0.0	0	0	0
1999-11-20	1994	1896	DATA FROM SAG.	6.6	0.0	0	0.0	0.0	0.0	0.0	0.0	130	0	0	0	0	22.0	53.0	0.0	0	60
1999-11-21	2298	2118	DATA FROM SAG.	5.9	5.8	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	22.0	53.0	0.0	0	61
1999-11-22	2362	2171	DATA FROM SAG.	5.8	5.8	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	22.0	53.0	0.0	0	61
1999-11-23	2362	2171	DATA FROM SAG.	5.8	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	22.5	53.0	0.0	0	47
1999-11-24	2362	2171	DATA FROM SAG.	5.5	0.0	0	0.0	0.0	0.0	0.0	0.0	116000	0	0	0	0	24.0	51.0	0.0	0	36

Hole section : 8 1/2"

WATER BASED SYSTEM

Date	Depth [m]	Mud Type	Dens [sg]	Filtrate API [mm]	Filtcake API [mm]	HPHT Press [bar/DegC]	pH	Alkalinity Pm [ml]	Pf [ml]	Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid Oil Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	
	MD	TVD																			
1999-11-25	2362	2171	DATA FROM SAG.	0.0	5.6	0	0.0	0.0	0.0	0.0	0.0	116000	0	0	0	0	23.0	52.0	0.0	0	17
1999-11-26	2362	2171	DATA FROM SAG.	0.0	5.6	0	0.0	0.0	0.0	0.0	0.0	116000	0	0	0	0	23.0	52.0	0.0	0	17
1999-11-27	2364	2173	DATA FROM SAG.	0.0	5.2	0	0.0	0.0	0.0	0.0	0.0	112000	0	0	0	0	23.5	52.5	0.0	0	26
1999-11-28	2411	2213	DATA FROM SAG.	0.0	2.5	0	0.0	0.0	0.0	0.0	0.0	132000	0	0	0	0	24.5	51.5	0.0	0	45
1999-11-29	2478	2269	DATA FROM SAG.	0.0	3.0	0	0.0	0.0	0.0	0.0	0.0	138000	0	0	0	0	24.5	51.5	0.0	0	45
1999-11-30	2478	2269	DATA FROM SAG.	0.0	3.0	0	0.0	0.0	0.0	0.0	0.0	138000	0	0	0	0	24.5	51.5	0.0	0	45
1999-12-01	2478	2269	DATA FROM SAG.	0.0	3.0	0	0.0	0.0	0.0	0.0	0.0	138000	0	0	0	0	24.5	51.5	0.0	0	45
1999-12-02	2478	2269	DATA FROM SAG.	0.0	3.5	0	0.0	0.0	0.0	0.0	0.0	121000	0	0	0	0	23.5	53.5	0.0	0	64

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 34/7-30 SR PO: 1

Hole section : 0.0

WATER BASED SYSTEM

Date	Depth [m]	Mud Type	Dens [sg]	Filtrate API [m]	HPHT [m]	Filtcake API [mm]	HPHT [mm]	Press [bar]	Temp [DegC]	pH	Alcalinity Pm [ml]	Pf [ml]	Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid [%]	Oil [%]	Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
MD	TVD																								
1999-12-03	0	0	DATA FROM SAG, 1.45	0.0	0.0	3.0	0	0	/	0.0	0.0	0.0	0.0	0.0	116000	0	0	0	0	21.0	55.0	0.0	0	0	62

TOTAL CONSUMPTION OF MUD ADDITIVES ON WELL 34/7-30 S PO: 1

Section	Product/ Additive	Unit	Total Amount Used
36"	ANTISOL FL30	kg	400.00
	BARITE	kg	223.00
	BENTONITE	kg	102.00
	CMC EHV	kg	2100.00
	LIME	kg	1120.00
	SODA ASH	kg	1350.00
17 1/2"	ANTISOL FL30	kg	400.00
	BARITE	kg	57.00
	BENTONITE	kg	21.00
	CMC EHV	kg	200.00
	LIME	kg	840.00
	SODA ASH	kg	100.00

TOTAL CONSUMPTION OF MUD ADDITIVES ON WELL 34/7-30 SR PO: 1

Unofficial Data

Location	Product/ Additive	Unit	Total Amount Used
12 1/4"	BARITE	kg	137000.00
	BENTONE 128	kg	3076.00
	CACL2 BRINE (1.38 SG)	l	13640.00
	LIME	kg	9620.00
	NOVAMOD LAO	l	1281.00
	NOVATEC B	l	127000.00
	NOVATEC PE	l	6028.00
	NOVATEC SE	l	3014.00
8 1/2"	BARITE	kg	79000.00
	BENTONE 128	kg	1194.00
	CACL2 BRINE (1.38 SG)	l	3900.00
	LIME	kg	3900.00
	NOVAMOD LAO	l	482.00
	NOVATEC B	l	50000.00
	NOVATEC PE	l	2432.00
	NOVATEC SE	l	1972.00

7 BIT / CASING CONSUMPTION

7.1 Bit Records

7.2 Main Consumption of Casing and Tubing

BIT RECORD FOR WELL 347-30 SPO: 1

Bit No	RR Type	Size (in)	Manufacturer	Trade name	Serial no.	IADC code	Nozzles diameter (./32in)	Flow area (in ²)	BHA no.	Depth out (m MD)	Bit meter (m)	Rot. hours (hrs)	ROP (m/hr)	Rotation (rpm)	Total bit revol.	Weight (kN)	Flow (l/min)	Pump (min/max (bar))	Cutting Structure I-O-DC-L-B	Gauge 1/16 (in)	Other Remarks	Pull Cause
1	MITO	9.88	REED	Y11	LK462	111	18,18,18	0.746	1	600	356		0.0	0/0		0/8			3-4-WT-A-E	1	HC	TD
2	MITO	26.00	REED	Y11	C54008	111	16,24,24,24	1.522	2	297	53	1.00	53.0	65/80		2/18			3-3-WT-A-2	1	NO	TD
	1 MITO	26.00	REED	Y11	C54008	111		0.000	3	293	5		0.0	40/60		1/15			4-4-WT-A-2	1	NO	TD
	BIT	17.50	REED		T 38850			0.000	4	1148	846		0.0	60/100		0/24			2-2-WT-A-E	1	NO	TD
	BIT	12.25	SDBS		312573			0.000	5	1005	258		0.0	120/140		5/20			1-1-NO-E	1	NO	TD

BIT RECORD FOR WELL 34/7-30 SR PO: 1

Bit No	RR Type	Size (in)	Manu- fact- urer	Trade name	Serial no.	IADC code	Nozzles diameter (./32in)	Flow area (in2)	BHA no.	Depth out (m MD)	Bit meter (m)	Rot. hours (hrs)	ROP (m/hr)	Rotation min/max (rpm)	Total bit revol.	Weight min/max (kN)	Flow min/max (l/min)	Pump min/max (bar)	Cutting Structure I-O-DC-L-B	Gauge 1/16 (in)	Other Remarks	Pull Cause
1	PDC	12.25	LYNG	LA250	2527	M646	16,16,16,16,16,16	1.178	1	1219	77	3.00	25.7	50/125		1/4	3300/4000	250/275	1-1-NO-G-X	1	NO	BHA
2	MITO	12.25	SDBS	ERA13RDL	731512	435G	20,24,24,24	1.632	2	1365	146	8.00	18.3	60/90		3/27	3300/4000	250/280	8-8-LC-A-F	16	RO	PR
3	CSTI	12.25	HTC		F57DFS1		14,24,24,24	1.476	3	1262	18	3.00	6.0	100/120		1/3	2880/3500	205/275				
3	ISRT	12.25	HTC	MXC09DDT	F57DF	437	14,24,24,24	1.476	4	1262	18	3.00	6.0	60/200		2/25	2500/4000	200/280	0-0-NO-A-E	1	NO	KOP
1	ISRT	12.25	HTC	MXC09DDT	F57DFS2	437	14,24,24,24	1.476	5	1994	750	46.00	16.3	0/100		4/18	3000/3400	250/280	6-2-BT-N-E	1	WO	HR
2	MITO	12.25	SDBS	ERA13RDL	731512	435G	16,28,28,28	2.000	6	2362	368	21.50	17.1	0/96		8/18	2900/3000	280/288	1-3-BT-N-E	1	NO	TD
3	ISRT	8.50	HTC	ATMGTP18D	K77CV	447	16,16,16	0.589	7	2355	40	4.50	8.9	0/100		3/8	2100/2200	250/280	1-1-NO-A-E	1	NO	HP
8	ISRT	12.25	HTC	MXC09BDDT	V14CLS3	437	16,16,16	0.589	8	2345	61	0.50	122.0	0/100		4/16	800/1500	61/200	1-2-WT-H-E	1	BU	BHA
5	ISRT	8.50	HTC	ATMGTP18D	K77CV	447	18,18,18	0.746	9	2403	58	5.60	10.4	50/60		4/11	800/1100	80/117	2-2-WT-A-E	1	NO	CP
5	CORE	8.50	SDBS	FC264RILJ	7971194	M233	16,16,16	0.589	10	2448	45	4.00	11.3	0/90		2/10	600/1100	120/150	1-1-NO-A-X	1	NO	NC
3	ISRT	8.50	HTC	ATMGTP18D	K77CV	447	18,18,18	0.746	11	2478	30	5.00	6.0	70/100		5/15	1250/1250	144/144	3-3-WT-A-E	1	BT	TD
6	BN	6.83			XXXXX			0.000	13	1128	0	2.00	0.0	0/100		2/10	500/1200	100/120	1-1-FC-A-F	1	CT	BHA
7	BIT	12.25	SDBS	ERA3RD	699942	135	16,16,16	0.589	14	1027	0	3.00	0.0									

MAIN CONSUMPTION OF CASING/TUBING ON WELL 34/7-30 S PO: 1

Size	Casing string	Grade	Weight		Threads type	Length [m]	No. of joints
			[kg/m]	[lb/ft]			
30"	SAGA	B	461.31	310.00	ST - 2 RB	50.0	
13 3/8"	SAGA	N-80	101.19	68.00	UNDEFINED	904.0	

MAIN CONSUMPTION OF CASING/TUBING ON WELL 34/7-30 SR PO: 1

Size	Casing string	Grade	Weight		Threads type	Length [m]	No. of joints
			[kg/m]	[lb/ft]			
30"	CONDUCTOR	B	460.86	309.70	ST - 2 RB	50.0	4
30"	CONDUCTOR	B	460.86	309.70	ST - 2 RB	50.0	4
13 3/8"	INTERMEDIATE	N-80	101.19	68.00	NEW VAM	904.0	75
13 3/8"	INTERMEDIATE	N-80	101.19	68.00	NEW VAM	904.0	75
9 5/8"	PRODUCTION	L-80	69.94	47.00	VAM ACE	2144.0	175

Norsk Hydro

BOTTOM HOLE ASSEMBLIES USED ON WELL 34/7-30 S PO: 1

BHA no. 1:	No. / Element / OD(in) / Length(m)	Depth In: 244 m MD	Out: 600 m MD
1 Y11	9.875 0.39		

Reason pulled: TOTAL DEPTH/CASING DEPTI Sum: 0.39

BHA no. 2:	No. / Element / OD(in) / Length(m)	Depth In: 244 m MD	Out: 297 m MD
1 Y11	26.0 0.61		

Reason pulled: TOTAL DEPTH/CASING DEPTI Sum: 0.61

BHA no. 3:	No. / Element / OD(in) / Length(m)	Depth In: 288 m MD	Out: 293 m MD
1 Y11	26.0 0.61		

Reason pulled: TOTAL DEPTH/CASING DEPTI Sum: 0.61

BHA no. 4:	No. / Element / OD(in) / Length(m)	Depth In: 302 m MD	Out: 1148 m MD
1 BIT NAME	17.5 0.43		

Reason pulled: TOTAL DEPTH/CASING DEPTI Sum: 0.43

BHA no. 5:	No. / Element / OD(in) / Length(m)	Depth In: 747 m MD	Out: 1005 m MD
1 BIT NAME	12.25 0.39		

Reason pulled: TOTAL DEPTH/CASING DEPTI Sum: 0.39

BOTTOM HOLE ASSEMBLIES USED ON WELL 34/7-30 SR PO: 1

BHA no. 1:		No. / Element / OD(in) / Length(m)		Depth In: 1142 m MD Out: 1219 m MD	
1	LA250	12.25	0.42	2	DOWNHOLE MOTOR 9.0 10.98
3	STEEL STAB	12.125	1.68	4	MWD 8.0 17.23
5	STEEL STAB	12.0	2.20	6	DRILL COLLAR STEEL 8.0 27.00
7	JAR	7.813	9.74	8	DRILL COLLAR STEEL 8.0 18.80
9	X-OVER	7.813	0.85	10	HWDP 5.0 139.89
11	DRILL PIPE	5.0	10.00		

Reason pulled: CHANGE BOTTOMHOLE ASSI Sum: 238.79

BHA no. 2:		No. / Element / OD(in) / Length(m)		Depth In: 1219 m MD Out: 1365 m MD	
1	ERA13RDL	12.25	0.37	2	DOWNHOLE MOTOR 9.0 10.98
3	STEEL STAB	12.125	1.68	4	MWD 8.0 17.23
5	STEEL STAB	12.0	2.20	6	DRILL COLLAR STEEL 8.0 27.00
7	JAR	7.813	9.74	8	DRILL COLLAR STEEL 8.0 18.80
9	X-OVER	7.813	0.85	10	HWDP 5.0 112.66
11	DRILL PIPE	5.0	10.00		

Reason pulled: PENETRATION RATE Sum: 211.51

BHA no. 3:		No. / Element / OD(in) / Length(m)		Depth In: 1244 m MD Out: 1262 m MD	
1	CEMENT STINGER	12.25	0.35	2	DRILL PIPE 5.0 100.00

Reason pulled: Sum: 100.35

BHA no. 4:		No. / Element / OD(in) / Length(m)		Depth In: 1244 m MD Out: 1262 m MD	
1	MXC09DDT	12.25	1.48	2	DOWNHOLE MOTOR 9.0 10.98
3	STEEL STAB	12.125	1.68	4	MWD 8.0 17.23
5	STEEL STAB	12.0	2.20	6	DRILL COLLAR STEEL 8.0 27.00
7	JAR	7.813	9.74	8	DRILL COLLAR STEEL 8.0 18.80
9	X-OVER	7.813	0.85	10	HWDP 5.0 139.89
11	DRILL PIPE	5.0	10.00		

Reason pulled: REACHED KICK OFF POINT Sum: 239.85

BHA no. 5:		No. / Element / OD(in) / Length(m)		Depth In: 1244 m MD Out: 1994 m MD	
1	MXC09DDT	12.25	0.35	2	DRILL COLLAR STEEL 9.5 10.98
3	STEEL STAB	12.125	1.68	4	MWD 8.0 17.23
5	STEEL STAB	12.0	2.20	6	DRILL COLLAR STEEL 8.0 27.00
7	JAR	8.25	9.74	8	DRILL COLLAR STEEL 8.0 18.80
9	X-OVER	7.813	0.85	10	HWDP 5.0 139.89
11	DRILL PIPE	5.0	9.00		

Reason pulled: HOURS Sum: 237.72

BHA no. 6:		No. / Element / OD(in) / Length(m)		Depth In: 1994 m MD Out: 2362 m MD	
1	ERA13RDL	12.25	0.35	2	DOWNHOLE MOTOR 9.0 10.98
3	STEEL STAB	12.125	1.68	4	MWD 8.0 17.23
5	STEEL STAB	9.5	2.20	6	DRILL COLLAR STEEL 8.0 27.00
7	JAR	8.25	9.74	8	DRILL COLLAR STEEL 8.0 18.80
9	X-OVER	7.813	0.85	10	HWDP 5.0 112.66
11	DRILL PIPE	5.0			

Reason pulled: TOTAL DEPTH/CASING DEPTI Sum: 201.49

BOTTOM HOLE ASSEMBLIES USED ON WELL 34/7-30 SR PO: 1

BHA no. 7:	No. / Element / OD(in) / Length(m)	Depth In: 2315 m MD Out: 2355 m MD					
1	ATMGTP18D	8.5	0.23	2	BIT SUB	6.5	0.87
3	STEEL STAB	8.25	1.96	4	MWD	8.0	16.79
5	STEEL STAB	8.25	1.59	6	DRILL COLLAR STEEL	6.5	36.26
7	JAR	6.5	9.35	8	DRILL COLLAR STEEL	6.5	17.99
9	HWDP	5.0	139.89	10	DRILL PIPE	5.0	9.00

Reason pulled: HOLE PROBLEMS Sum: 233.93

BHA no. 8:	No. / Element / OD(in) / Length(m)	Depth In: 2284 m MD Out: 2345 m MD					
1	MXC09BDDT	8.5	0.34	2	DOWN HOLE MOTOR WITH ST/	9.0	10.98
3	STEEL STAB	12.125	1.68	4	MWD	8.0	17.23
5	STEEL STAB	12.0	2.20	6	DRILL COLLAR STEEL	8.0	27.00
7	JAR	8.25	9.74	8	DRILL COLLAR STEEL	8.0	18.80
9	X-OVER	7.813	0.85	10	HWDP	5.0	112.66
11	DRILL PIPE	5.0	9.00				

Reason pulled: CHANGE BOTTOMHOLE ASSI Sum: 210.48

BHA no. 9:	No. / Element / OD(in) / Length(m)	Depth In: 2345 m MD Out: 2403 m MD					
1	ATMGTP18D	8.5	0.23	2	BIT SUB	6.5	0.87
3	STEEL STAB	8.25	1.96	4	MWD	8.0	
5	STEEL STAB	8.5	1.59	6	DRILL COLLAR STEEL	6.5	36.26
7	JAR	6.5	9.35	8	DRILL COLLAR STEEL	6.5	17.99
9	HWDP	5.0	139.89	10	DRILL PIPE	5.0	9.00

Reason pulled: CORE POINT Sum: 217.14

BHA no. 10:	No. / Element / OD(in) / Length(m)	Depth In: 2403 m MD Out: 2448 m MD					
1	FC264RILI	8.5	0.36	2	CORE BARREL	6.75	48.40
3	X-OVER	6.5	0.41	4	BIT SUB	6.5	0.87
5	DRILL COLLAR STEEL	6.5	27.20	6	JAR	6.5	9.35
7	DRILL COLLAR STEEL	6.5	17.99	8	HWDP	5.0	139.89

Reason pulled: NEW CORE/FULL BARREL Sum: 244.47

BHA no. 11:	No. / Element / OD(in) / Length(m)	Depth In: 2448 m MD Out: 2478 m MD					
1	ATMGTP18D	8.5	0.23	2	BIT SUB	6.5	0.87
3	STEEL STAB	8.25	1.96	4	MWD	8.0	16.79
5	STEEL STAB	8.5	1.59	6	DRILL COLLAR STEEL	6.5	36.26
7	JAR	6.5	9.35	8	DRILL COLLAR STEEL	6.5	17.99
9	HWDP	5.0	139.89				

Reason pulled: TOTAL DEPTH/CASING DEPTI Sum: 224.93

BHA no. 12:	No. / Element / OD(in) / Length(m)	Depth In: 2473 m MD Out: 2478 m MD					
1	DIVERTER SUB	4.5	1.31	2	DRILL PIPE	3.5	230.49
3	X-OVER	6.5	0.92	4	DRILL PIPE	5.0	9.00

Reason pulled: Sum: 241.72

BHA no. 13:	No. / Element / OD(in) / Length(m)	Depth In: 1128 m MD Out: 1128 m MD					
1	BULL NOZE	8.0	0.36	2	INTERNAL CUTTER	9.625	1.10
3	STOP SUB	8.0	0.48	4	DRILL PIPE	6.625	883.33
5	PUP JOINT	6.625	6.04	6	X-OVER	6.625	1.07

Reason pulled: CHANGE BOTTOMHOLE ASSI Sum: 892.38

BOTTOM HOLE ASSEMBLIES USED ON WELL 34/7-30 SR PO: 1

BHA no. 14:		No. / Element / OD(in) / Length(m)		Depth In: 1027 m MD Out: 1027 m MD			
1	ERA3RD	12.25	0.72	2	BIT SUB	8.0	1.02
3	DRILL COLLAR STEEL	8.0	54.46	4	X-OVER	8.0	0.50
5	DRILL PIPE	5.0	9.00				

Reason pulled: Sum: 65.70

BHA no. 15:		No. / Element / OD(in) / Length(m)		Depth In: 244 m MD Out: 247 m MD			
1	JUNK MILL	17.5	0.95	2	BIT SUB	8.0	1.02
3	STRING MILL	14.75	1.45	4	X-OVER	7.813	1.20
5	JAR	8.0	4.73	6	DRILL COLLAR STEEL	8.0	54.46
7	X-OVER	8.0	0.50	8	DRILL PIPE	5.0	9.00

Reason pulled: Sum: 73.31

BHA no. 16:		No. / Element / OD(in) / Length(m)		Depth In: 297 m MD Out: 297 m MD			
1	TAPER MILL	8.5	1.15	2	BIT SUB	9.5	0.92
3	STEEL STAB	17.5	1.54	4	JAR	8.0	4.73
5	DRILL COLLAR STEEL	8.0	54.46	6	X-OVER	8.0	0.50

Reason pulled: Sum: 63.30

BHA no. 17:		No. / Element / OD(in) / Length(m)		Depth In: 297 m MD Out: 297 m MD			
1	TAPER MILL	8.5	1.15	2	BIT SUB	6.688	0.95
3	DRILL PIPE	5.0	28.51	4	X-OVER	6.688	0.85
5	X-OVER	6.688	1.00	6	EXTERNAL CUTTER	6.688	1.94
7	X-OVER	8.0	0.48	8	DRILL PIPE	5.0	56.99
9	STEEL STAB	8.0	2.77	10	DRILL COLLAR STEEL	8.0	54.46
11	X-OVER	8.0	0.50	12	DRILL PIPE	5.0	9.00

Reason pulled: Sum: 158.60

BHA no. 18:		No. / Element / OD(in) / Length(m)		Depth In: 248 m MD Out: 248 m MD			
1	PLUG MILL	6.0	1.15	2	BIT SUB	6.687	0.95
3	DRILL PIPE	6.675	9.47	4	SPEAR	13.375	1.39
5	STEEL STAB	17.5	1.54	6	BUMPER SUB	8.0	3.42
7	JAR	8.0	4.73	8	DRILL COLLAR STEEL	8.0	28.54
9	X-OVER	8.0	0.50				

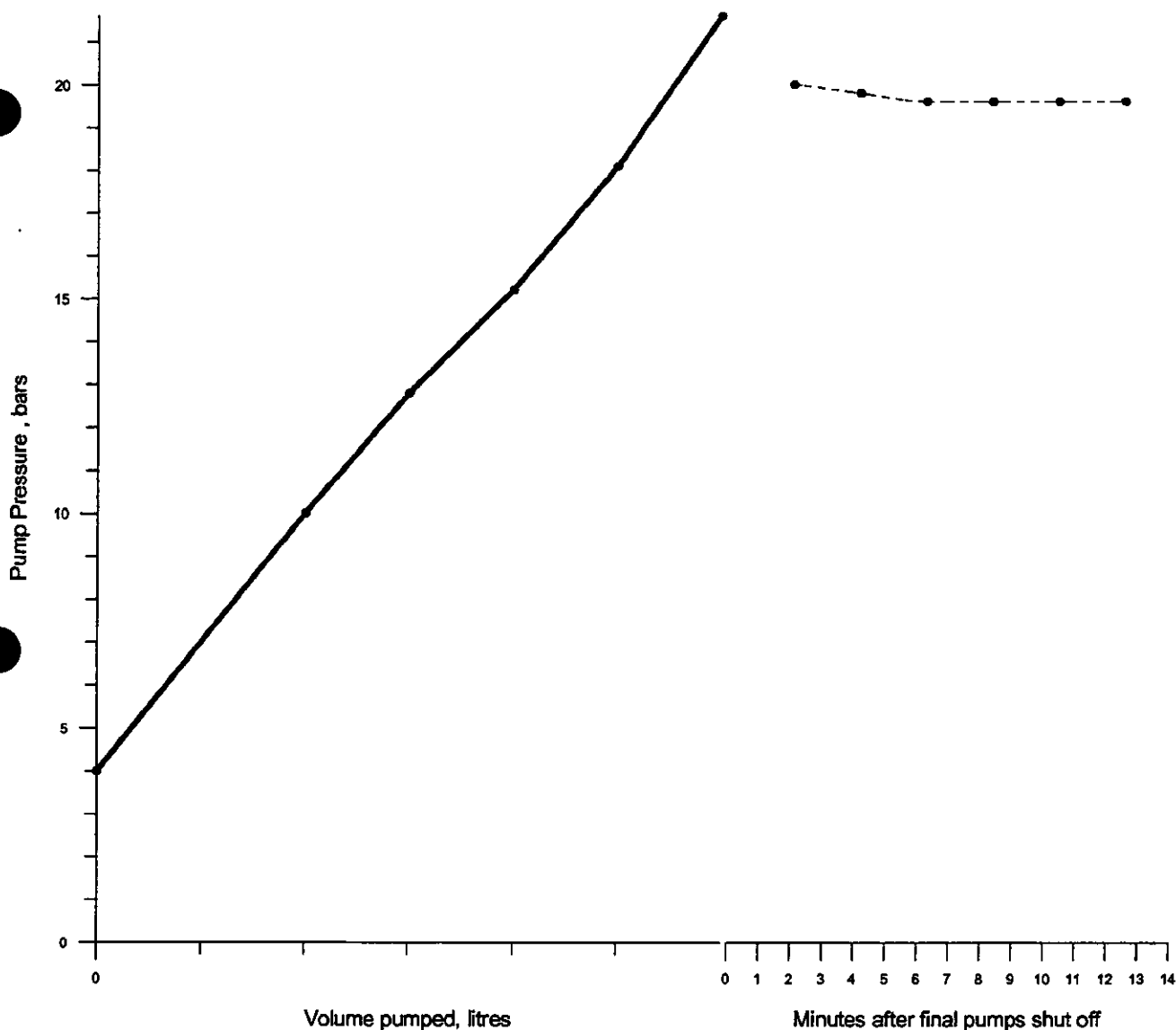
Reason pulled: Sum: 51.69

BHA no. 19:		No. / Element / OD(in) / Length(m)		Depth In: 220 m MD Out: 220 m MD			
1	BULL NOZE	8.0	0.39	2	INTERNAL CUTTER	8.0	1.94
3	OTHER	8.0	1.89	4	DOWN HOLE MOTOR WITH ST/	8.0	7.00
5	DRILL COLLAR STEEL	8.0	54.46	6	X-OVER	8.0	0.47
7	DRILL PIPE	5.0	10.00				

Reason pulled: Sum: 76.15

Well 34/7-30 SR		Test type: FIT		Test date: 1999-11-28	
Rig SCARABEO 5	Airgap (m) 25.00	Water depth (m) 213.00	CsgO _d 13.375	Hole angle (deg) 1	
Csg Shoe (mMD/mTVD) 1140.00 / 1139.96		OH depth (mMD/mTVD) 2365.00 / 2174.00		Lithology:	
Dens 1.60	API WL(m/30min)	PV (cp)	YP (Pa)	Gel0/Gel10 /	
Pump Rate (l/min) 2.00		Vol pumped (l.) 60.00	Vol bled back (l.) 60.00		
Leakoff Pressure (bar) 21.60		Max pressure (bar) 21.32	Propagation press (bar) 19.60		
Test result (sq EMD) 1.79		Shut-in pressure 21.60			

Comments



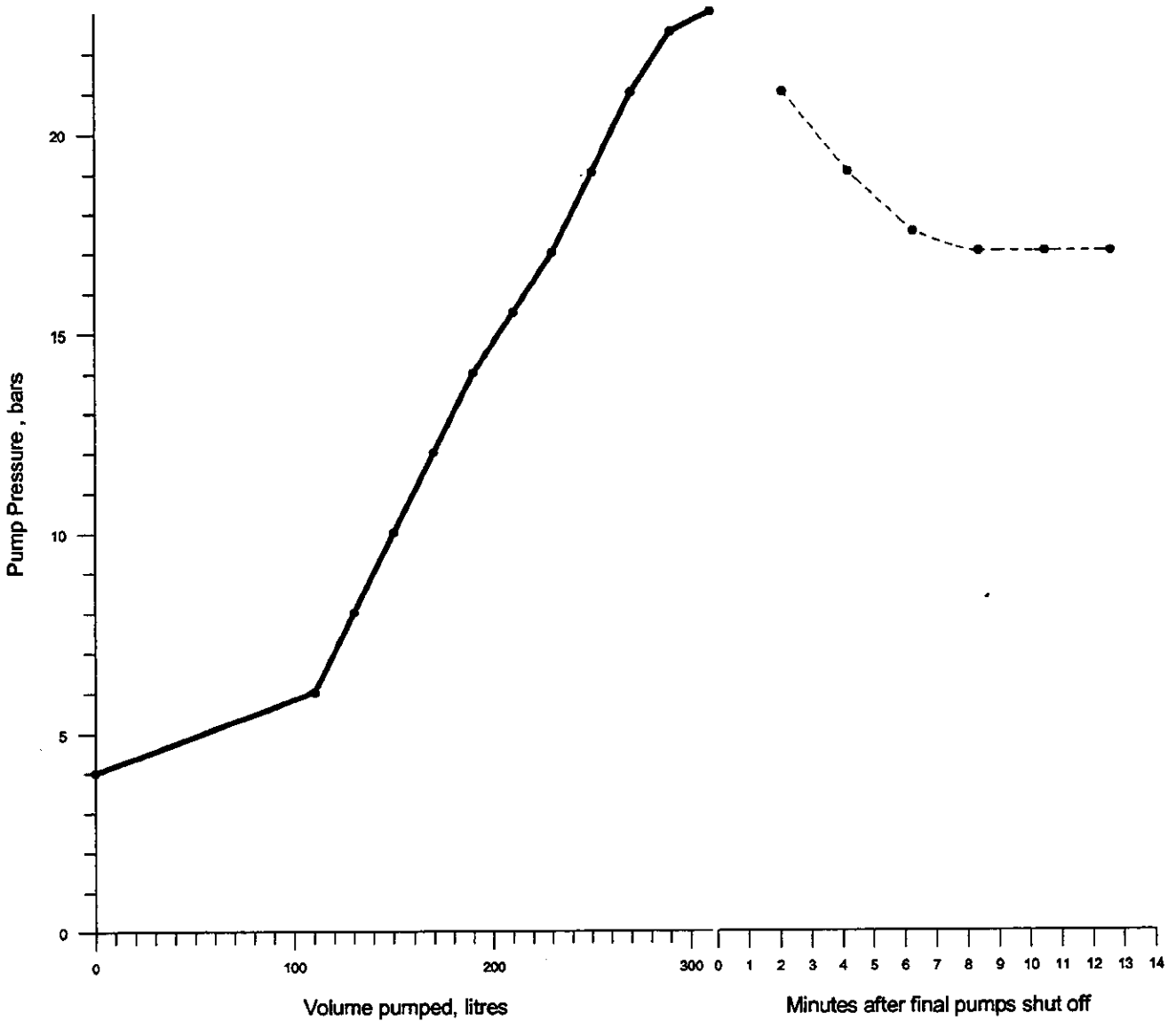
End of Well
Report
34/7-30 SR

Fig.:
1

HYDRO

Well 34/7-30 SR		Test type: FIT		Test date: 2001-06-11	
Rig SCARABEO 5	Airgap (m) 25.00	Water depth (m) 213.00	CsgOdr* 13.375	Hole angle (deg) 1	
Csg Shoe (mMD/mTVD) 1140.00 / 1139.96	OH depth (mMD/mTVD) 1148.00 / 1147.96		Lithology: Sh		
Dens 1.44	API WL (ml/30min)	PV (cp) 27.00	YP (Pa) 22.00	Gel0/Gel10 15.00 / 22.00	
Pump Rate (l/min) 60.00	Vol pumped (l.) 310.00		Vol bled back (L) 240.00		
Leakoff Pressure (bar) 22.50	Max pressure (bar) 23.00		Propegation press (bar) 17.50		
Test result (sg EMD) 1.64	Shut-in pressure 16.80				

Comments



End of Well Report 34/7-30 SR	Fig.: 1		HYDRO
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10

DRILLING CURVE



34/7-30 S
TD of well
1148 m MD
After 14.21 Days
Ref Point: RKB 31.00 m ABOVE MSL

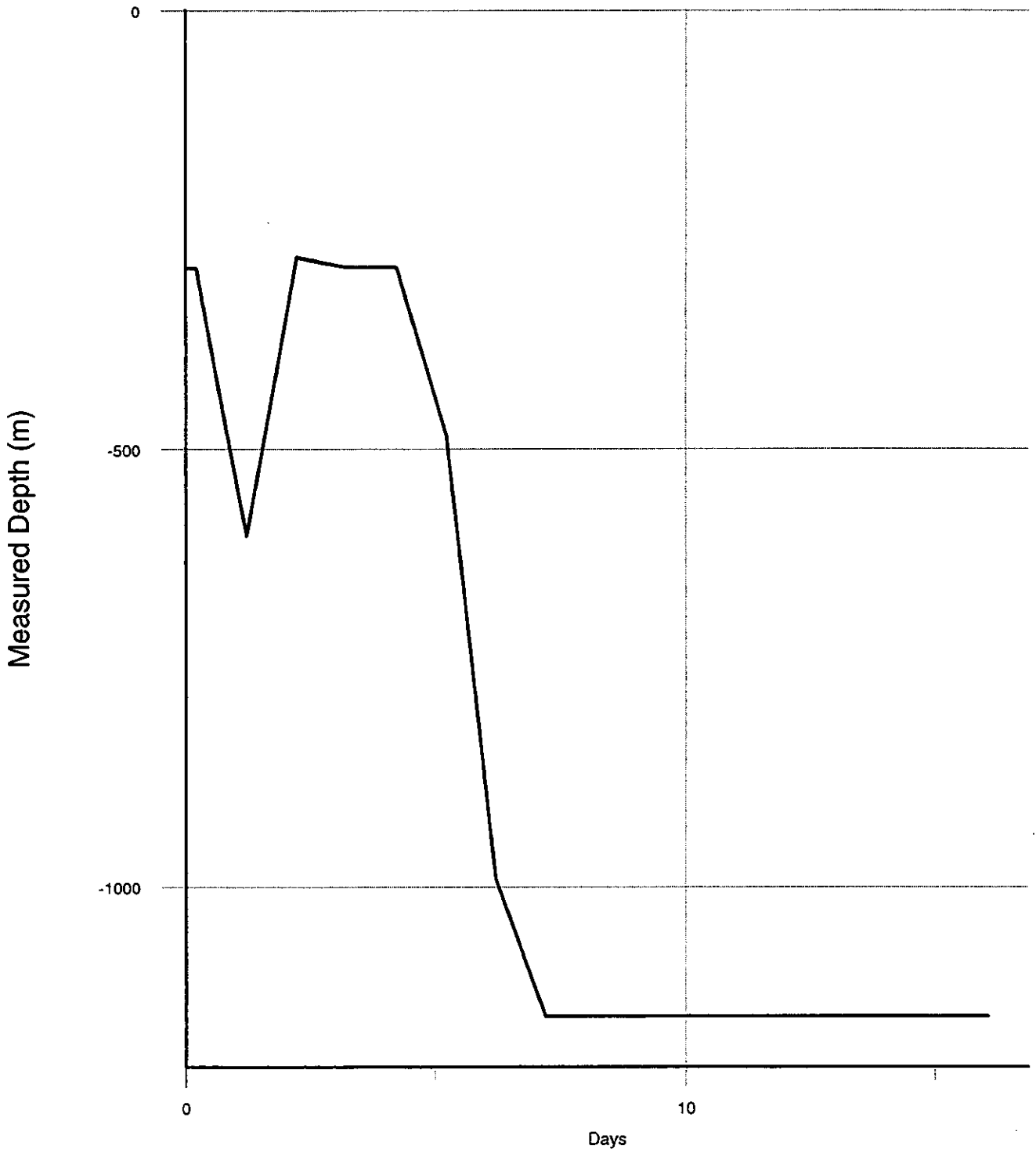


Figure 1

MD Drilling Curve

HYDRO

347-30 SR
TD of well
2478 m MD
After 18.48 Days
Ref Point: RKB 25.00 m ABOVE MSL

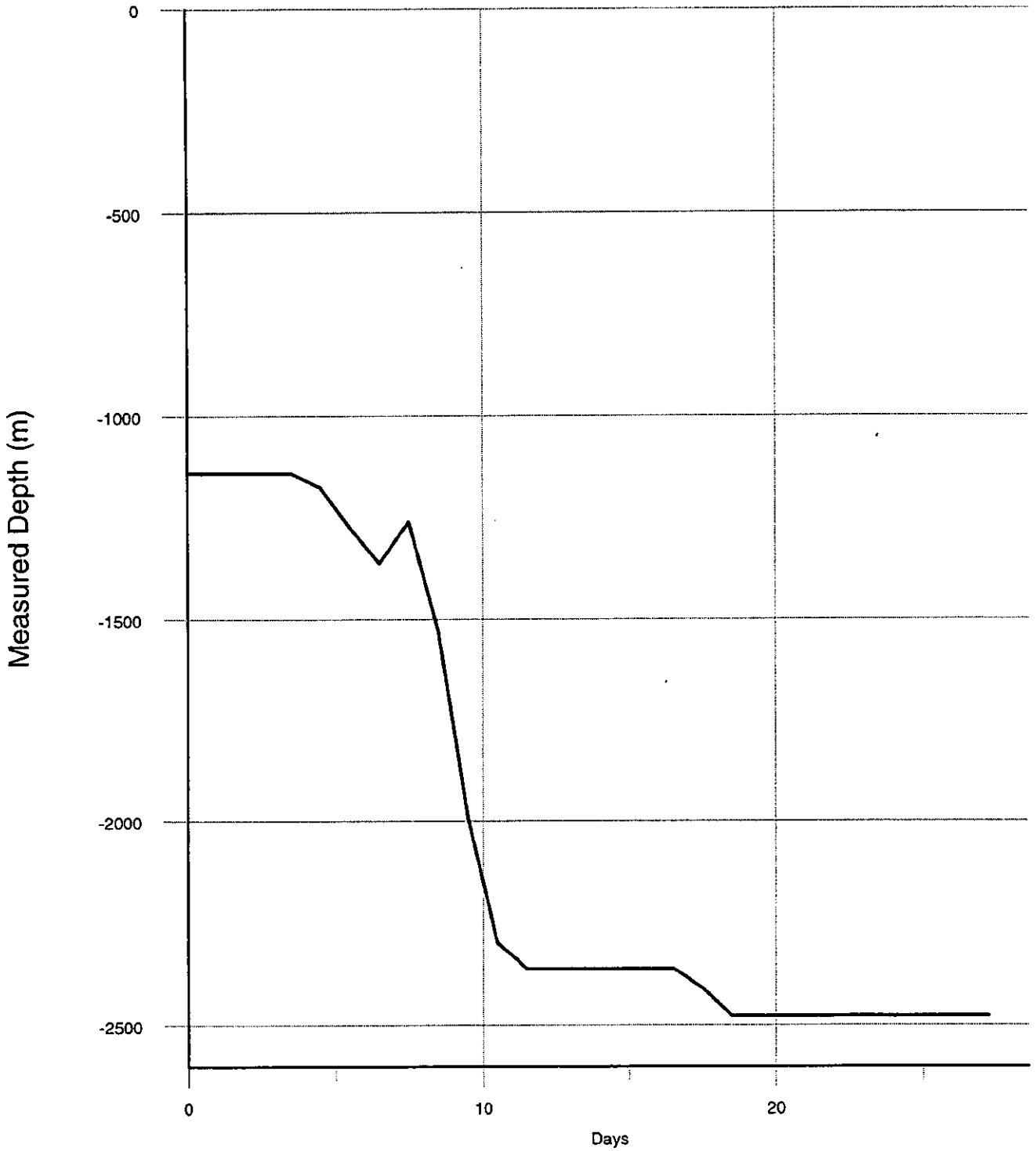


Figure 1

MD Drilling Curve

HYDRO

SECTION C

ENCLOSURES

TABLE OF CONTENTS

Enclosure 1: Composite Log 34/7-30 SR, 34/7-30 SRT2

Enclosure 2: Wellsite Core Description 34/7-30 SRT2

**THIS PAGE IS LARGER THAN A3,
SEE SEPARATE FILE.**

FILE NAME:

ENCLOSURE 01:

COMPOSITE LOG 34/7-30 SR, 34/7-30 SRT2

WELLSITE CORE DESCRIPTION



WELL: 34/7-30SR T2		DATE: 29/11-99		GEOL: SEi		SCALE 1: 50							
CORE NO: 1		FROM: 2403 m TO: 2448 m		CORED: 45 m		REC: 44.5 m. 98.8 %.		FORMATION: DRAUPNE					
DEPTH m RKB	CORING RATE 40 30 20 10	LITHOLOGY GRAIN SIZE						CORE	PORO- SITY 10 20 30	STAIN 25 50 75	FLUOR 25 50 75	CUT NO FLOW FAST INST	DESCRIPTION
		mu	si	ul	l	m	c						
2404													CLAYSTONE CLST: SLTY, DK ST - OLV BUX, FRM - HD, MICA, SL CALC, GRDS SLTST.
2405													SHOWS 2403 - 2447.5 : NONE
2406													
2407													
2408													
2409													
2410													CLST: TR FOS, ELSE A/A.
2411													CLST: GY BUX, FRM - HD, BUKY, BRIT, SL CALC - CALC, MICA, TR MICFOS, TR FOS.
2412													
2413													
2414													
2415													CLST: NON CALC, NO FOS, ELSE A/A.
2416													
2417													CLST: SL SLTY, SL CALC, MICA, ELSE A/A
2418													
2419													
2420													

WELLSITE CORE DESCRIPTION



WELL: 34/7-30 SET2		DATE: 29/11-99		GEOL: SEi		SCALE 1: 50							
CORE NO: 1		FROM: 2403 m TO: 2448 m		CORED: 45 m		REC: 44.5 m. 99.8 %.		FORMATION: DRAUPNE					
DEPTH m RKB	CORING RATE 40 30 20 10	LITHOLOGY GRAIN SIZE mu si ul l m c uc						CORE	PORO- SITY 10 20 30	STAIN 25 50 75	FLUOR 25 50 75	CUT NO SLOW FAST INST.	DESCRIPTION
2422													CLST: SL SLTY, DK QY - OLV BLK, FRM - HD, SBFIS, MICA, CALC.
2423													CLST: TR FOS, ELSE A/A.
2424													
2425													CLST: TR MIC FOS, SL CALC, ELSE A/A
2426													
2427													
2428													CLST: SLTY, DK QY - OLV BLK, FRM - HD, SBFIS, NON CALC, MICA.
2429													
2430													
2431													
2432													CLST: DK QY - OLV BLK, HD, SBFIS, SL CALC, TR CHLOR, TR FOS.
2433													
2434													CLST: MICMICA, ELSE A/A
2435													
2436													
2437													CLST: SL SLTY, NON CALC, ELSE A/A.
2438													



WELLSITE CORE DESCRIPTION

WELL: 34/7-30SR T2 DATE: 29/11-99 GEOL: SEI SCALE 1: 50

CORE NO: 1 FROM: 2403 m TO: 2448 m CORED: 45 m REC: 445 m 98.8 % FORMATION: DRAUPNE

DEPTH m RKB	CORING RATE 40 30 20 10	LITHOLOGY GRAIN SIZE mm si uf l m c uc	CORE	PORO-	STAIN	FLUOR	CUT LOW FAST MIST	DESCRIPTION
				SITY 10 20 30	25 50 75	25 50 75		
2440			0					CLST: SL SLTY, DK QY - OLW BLK, FRM - HD, SG FIS, NON CALC, MIC MICA.
2441								CLST: SL CALC, ELSE A/A
2442								
2443								
2444								
2445								CLST: SL SLTY, DK QY - OLW BLK, FRM - HD, SG FIS, SL CALC, MIC MICA
2446								CLST: SLTY, CALC, ELSE A/A.
2447								
2448			X					