

Run no. 3A, 3B, 3D

RFT - pressure tests

Measured depth, m RKB	Hydrostatic pressure bar g	Formation pressure bar g	Corrected formation pressure bar g
3390.5	463.9	448.9	449.0
3295.0	464.4	449.1	449.2
1) 3298.5	464.7	449.1	449.2
3306.5	465.8	449.3	449.4
3312.5	466.4	449.4	449.5
2) 3317.3	467.2	449.5	449.6
3319.5	467.3	449.5	449.6
3) 3325.0	468.0	449.8	449.9
3327.5	468.5	450.2	450.3
3333.3	469.1	-	-
3347.0	471.3	451.4	451.5
3354.5	472.2	452.1	452.2
3361.5	473.2	453.1	453.2
3436.5	483.9	460.1	460.2
3446.0	484.6	460.9	461.0
3501.5	493.6	467.3	467.4
3512.5	494.0	470.6	470.7

Sampling: 2) 3317.3 m RKB 2 3/8 gallon + 1 gallon chambre
 3) 3325.0 m RKB 2 3/8 gallon + 1 gallon chambre
 1) 3298.5 m RKB 2 3/8 gallon + 1 gallon chambre



SUMMARY OF TEST RESULTS FROM
UPPER BRENT MEMBER, TARBERT FORMATION
34/10-21

Test no.:	1	2
Flow period no.:	1	2
Interval (m RKB):	3905.2-3922.5	3290.7-3312.7
Flow period (hrs):	0	10.10
Last recorded flowing bottom hole pressure reading (bar):	434.9	427.1
Choke (mm):	14.29	25.40
Last rec.bottom hole temp. reading (°C):	119.3	120.0
Gas vate (sm ³ /D):	837.800	1132.000
Gas density (air=1)	0.65	0.65
Fluid vate (sm ³ /D):	130.4	193.8
Fluid density (g/cc):	0.80	0.80
Gas oil rate (sm ³ /sm ³)	6424.0	5840.0

III 10. DRILLING FLUID SUMMARY

SUMMARY OF EVENTS

OPERATOR: STATOIL

WELL NO. 34/10-21

36" HOLE/30" CASING INTERVAL Day no. 1 - 2

Made up 169 m³ of spud mud and started to spud in. Pumped high viscosity pills every connection. Then POOH to 178 m and ran back to bottom - no fill. Displaced with 50 m³ high viscosity mud. POOH. Ran and cemented 30" casing and then started to build mud for 26" section including 45 m³ of kill mud at 1.20 SG.

OPERATOR

STATOIL

WELL NO.

34/10-21

RECOMMENDATIONS

36" HOLE/ 30" CASING INTERVAL

This section was drilled without any problems.

SUMMARY OF EVENTS

OPERATOR: STATOIL

WELL NO. 34/10-21

26" HOLE/ 20" CASING INTERVAL Day no. 3 - 6

RIH with 26" bit. Tagged cement at 224 m and drilled to 228 m before POOH. Then ran pin connector and riser. RIH and displaced seawater in riser in with mud. Drilled 26" hole to 495 m. Added seawater and gel to control weight and YP, Caustic to control pH at around 10.0. All solids removal equipment were ran during operation except for the centrifuge which was out of order. Drilled 26" hole to 615 m. Displaced hole with 1.22 SG mud and displaced riser with seawater. Pulled riser and weighted all surface pits to 1.22 SG. Then RIH with 26" bit and displaced hole with 160 m³ 1.22 SG mud. POOH and ran 20" casing. Cemented casing.

OPERATOR STATOIL
WELL NO. 34/10-21

RECOMMENDATIONS

26" HOLE/ 20" CASING INTERVAL

Also this section was drilled according to program without any special problems encountered.

SUMMARY OF EVENTS

OPERATOR: STATOIL

WELL NO. 34/10-21

17 1/2" HOLE/ 13 3/8" CASING INTERVAL Day no 7 - 14

While waiting on cement mixed 290 m³ gyp mud. Drilled out cement with old gel mud. Displaced with 1.10 SG gyp mud. Added premixed gyp mud and through the sand sections on top also some gel mud for fluid loss control. From about 1700 m formation changed to claystone. Mud was weighted up to 1.17 SG and premixed gyp mud was added as dilution and to control MBT. Before casing point raised mud weight to 1.20 SG, but because of tight spots increased it further to 1.22 SG. When trying to circulate 13 3/8" casing, had no returns. Set casing at 1896 m and cemented. Cleaned out most of the pits.

OPERATOR

STATOIL

WELL NO.

34/10-21

RECOMMENDATIONS

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

This section was drilled without any problems. However, we chose to drill with Gyp/CMC-mud instead of GYP/CMC/LIGNO because our experience indicates that faster drilling rates and better hole conditions are obtained in this section by leaving out ligno till casing point.

SUMMARY OF EVENTS

OPERATOR: STATOIL

WELL NO. 34/10-21

~~12 1/4"~~ HOLE/ ~~9 5/8"~~ CASING INTERVAL Day no. 15 - 32

Drilled out cement from last section. Had problems getting proper leak-off test. Had to do a squeeze job. Mud weight at this stage was increased to 1.26 SG and later to 1.29 SG. Started drilling in claystone. Decreased mud weight to 1.26 SG. Diluted with whole fresh mud and dumped old mud to control MBT. Also ran centrifuge to control MBT. In the upper part of the section had problems with bits being full of clay. However, we had nice hard cuttings coming over the shaker. Liners were changed from 6 1/2" to 5 1/2" to clean bit better.

At +2945 m increased mud weight to 1.33 SG. Still diluted with fresh mud to control MBT and also ran centrifuge for barite salvage. At about 3050 m weighted up mud again to 1.39 SG. At +3180 m weighted up mud to 1.44 SG. Drilled to 3196 m. Made wiper trip. Pulled out of hole and started logging. Ran casing and cemented casing with full returns.

OPERATOR STATOIL

WELL NO. 34/10-21

RECOMMENDATIONS

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

In this section problems with balled up bits were encountered. It is recommended that in this area Drilling Detergent is added to the mud before starting this section.

When drilling out cement from the 13 3/8" casing, very often the high pH combined with the high Ca^{++} ion environment precipitates out the CMC. We therefore recommend to use ANCOMEL or ANCO BIOVIS instead of CMC.

Also this section demanded more seawater dilution and consequently a higher barite and chemical consumption than programmed. In this dispersed system we think it would be a good idea to run a tighter fluid loss. Then you probably would not need to dilute as much. Also it is important to run the centrifuge as much as possible.

SUMMARY OF EVENTS

OPERATOR: STATOIL

WELL NO. 34/10-21

8 1/2" ~~HOLE/~~ 7" LINER ~~CASING INTERVAL~~ Day no. 33 - 63. Testing
day no. 64 - 87

Drilled out cement from last section and drilled to 3289 m - adding CMC and Spercell C to reduce HTHP fluid loss. Cored from 3289 m to 3383 m. Drilled ahead using Spercell C and CMC to maintain properties. Added seawater to build volume and ran centrifuge on old reserve mud to save barite. From +3550 m started bleeding in some gel mud to keep MBT at a reasonable level. At 3612 m did intermediate logging. The rate of penetration in this section was low +3 1/2 m an hour and the mud did not need more than small additions of CMC and Spercell C to maintain properties. In addition bled in some gel mud. Met sand at about 3910 m and drilled to 3960 m (drillers depth). Pulled out of hole and started logging.

It was then decided to continue drilling and apart from a low drill rate, 1 - 3 m/hr and the string parting while pulling out of the hole at 3973 m, no significant problems were encountered. Cores were cut from 3974 m to 3985 m and the hole then was TD'd with a rock bit at 4005 m where it was logged and a 7" liner was set at 4000 m.

Testing and plugging were accomplished without any mud problems.

OPERATOR

STATIOL

WELL NO.

34/10-21

RECOMMENDATIONS

8 1/2" HOLE/ 7" LINER

This section was drilled without any mud problems at all. However, the rate of penetration in this section was low.

OPERATOR STATOIL

WELL NO. 34/10-21

MATERIAL CONSUMPTION & COST ANALYSIS

12 1/4" HOLE DRILLED TO 3196 ^{Meters}~~Feet~~ 9 5/8" CASING SET AT 3181 ^{Meters}~~Feet~~

ACTUAL AMOUNT OF HOLE DRILLED 1278 ^{Meters}~~Feet~~ DAYS ON INTERVAL 18

DRILLING FLUID SYSTEM GYP/ CMC/ LIGNO

MATERIAL	UNIT SIZE	UNIT PRICE	CONSUMPTION	US\$ COST
ANCOBAR	M/T	148.-	256	37,888.-
WYOMING BENTONITE	M/T	380.-	2	760.-
WYOMING BENTONITE	50 KG	18.-	53	954.-
CAUSTIC SODA	25 KG	20.-	264	5,280.-
SODA ASH	50 KG	21.-	6	126.-
SODIUM BICARBONATE	50 KG	24.-	51	1,224.-
SPERCELL C	25 KG	19.50	412	8,034.-
DESCO	25 LBS	38.-	33	1,254.-
CMC LOVIS	25 KG	65.-	239	15,535.-
GYPSUM	40 KG	10.56	448	4,730.88
ALUMINIUM STEARATE	25 KG	89.-	4	356.-
DRILLING DETERGENT	200 L	495.-	8	3,960.-
ANCONOL	25 L	118.-	23	2,714.-
NUT PLUG	25 KG	22.-	20	440.-
CMC HIVIS	25 KG	67.-	40	2,680.-

COST/DAY US\$ 4,774.22

COST FOR INTERVAL US\$ 85,935.88

COST/M US\$ 67.24

OPERATOR STATOIL

WELL NO. 34/10-21

TOTAL CONSUMPTION & COST ANALYSIS

TOTAL DEPTH Meters Feet
 TOTAL HOLE DRILLED Meters Feet
 TOTAL DAYS INCLUDING 24 DAYS TESTING

MATERIAL	UNIT SIZE	UNIT PRICE	CONSUMPTION	US\$ COST
ANCOBAR	M/T	148.-	824	121,952.-
WYOMING BENTONITE	M/T	380.-	135	51,300.-
WYOMING BENTONITE	50 KG	18.-	93	1,674.-
SPERCELL C	25 KG	19.50	892	17,394.-
DESCO	25 LBS	38.-	33	1,254.-
CMC LOVIS	25 KG	65.-	686	44,590.-
CMC HIVIS	25 KG	67.-	88	5,896.-
CAUSTIC SODA	25 KG	20.-	795	15,900.-
SODA ASH	50 KG	21.-	42	882.-
GYPSUM	40 KG	10,56	1242	13,115.52
SODIUM BICARBONATE	50 KG	24.-	104	2,496.-
ALUMINIUM STEARATE	25 KG	89.-	4	356.-
DRILLING DETERGENT	200 L	495.-	8	3,960.-
NUT PLUG	25 KG	22.-	20	440.-
ANCONOL	25 L	118.-	38	4,484.-

COST/DAY TOTAL CHEMICAL COSTS
 COST/ M TOTAL ENGINEERING CHARGES
 TOTAL DRILLING FLUID RELATED COSTS



ANCHOR DRILLING FLUIDS AS

OSLO - STAVANGER

WELL NAME 34/10-21

AREA NORTH SEA

Drilling Fluid & Material Consumption Report

OPERATOR STATOIL

RIG DYVI DELTA

MUD SYSTEM GYP/ LIGNO

ENGINEERS SUNDE/ LAURTIZEN/ VAAGA

Day No	DATE	ESTIMATED DAILY MUD VOLUMES M ³			BULK MATERIALS			SACK MATERIALS		MATERIALS ADDED TO CONTROL PROPERTIES																				
		LOSSES-SUB SURFACE	LOSSES SURFACE	VOLUME MUD BUILT	M/T BARITE	M/T BENTONITE	BENTONITE	SPERCELL C	DESCO	THINNERS				POLYMERS				OTHERS												
										CMC	LOVIS	CMC	HIVIS	CAUSTIC SODA	SODA ASH	GYPSUM	SODIUM BICARB.	ALUM.	STEARATE	DRUG.	DETERGENT	NUT	PLUG	ANCONOL	DEFORMER					
29	23.8	2	70	8	18			17	11					2				27	6	7								11		
30	24.8		43	5																										
31	25.8		1				53	3	2									6												
32	26.8	45	47		16																					5				
33	27.8		5	21	9			23					23													30			1	
34	28.8		3	14	3			57					14					12												
35	29.8		3	1				6					3					6												
36	30.8		3	16				16					16					8												
37	31.8		2	10	5			8					8					3												
38	1.9		12					8					8					3												
39	2.9		2	3				4					4																	
40	3.9		2	14		2		16					12					9	1											
41	4.9		25	13				13					7					4												
42	5.9		2	9	7			11					3					5												
FORWARD		943	1153.5	2898.5	576	115	40	490	20				521	86				594	29	1235	51	4	8	20			12			
ESTIMATED TOTALS		990	1373.5	3012.5	634	117	93	672	33				619	88				677	36	1242	86	4	8	20			24			
REMARKS																														

WELL NAME 34/10-21 AREA NORTH SEA
 OPERATOR STATOIL RIG DYVI DELTA
 ENGINEERS WIIK/ VAAGA/ SHEPHERD

Drilling Fluid & Material Consumption Report

GEL/ LIGNO

MUD SYSTEM _____

Day No.	DATE	ESTIMATED DAILY MUD VOLUMES M ³			BULK MATERIALS			SACK MATERIALS		MATERIALS ADDED TO CONTROL PROPERTIES																						
		LOSSES SUB SURFACE	LOSSES SURFACE	VOLUME MUD BUILT	M/T BARITE	M/T BENTONITE	BENTONITE	SPERCELL C	DESCO	THINNERS	CMC	LOVIS	CMC	HTVIS	POLYMERS	CAUSTIC SODA	SODA ASH	GYPSUM	SODIUM BICARB. ALUM.	OTHERS	STEARATE DRIG.	DETERGENT	NUT	PLUG	ANCONOL	DEFOAMER						
43	1984 6.9				N I L		U S A G E																									
44	7.9		2					10			5																					
45	8.9		6	3	4			10			3																					
46	9.9		8	4	18																											
47	10.9		1		7			11			8																					
48	11.9							6			8														1							
49	12.9		11			2					11																					
50	13.9					2		9			11																					
51	14.9		8		4			17			9														1							
52	15.9		14					45																	1							
53	16.9			1				7																								
54	17.9		3																													
55	18.9		18																													
56	19.9		12	39	11	5		3																	3							
FORWARD		990	1373.5	3012.5	634	117	93	672	33		619	88													677	36	1242	86	4	8	20	24
ESTIMATED TOTALS		990	1466.5	3059.5	678	126	93	790	33		674	88													769	37	1242	86	4	8	20	30
REMARKS																																



ANCHOR DRILLING FLUIDS AS

OSLO - STAVANGER

WELL NAME 34/10-21 AREA NORTH SEA
 OPERATOR STATOIL RIG. DYVI DELTA
 ENGINEERS SHEPHERD

Drilling Fluid & Material Consumption Report

MUD SYSTEM GEL/ LIGNO

Day No.	DATE	ESTIMATED DAILY MUD VOLUMES M ³			BULK MATERIALS			SACK MATERIALS		MATERIALS ADDED TO CONTROL PROPERTIES																						
		LOSSES SUB SURFACE	LOSSES SURFACE	VOLUME MUD BUILT	M/T BARITE	M/T BENTONITE	BENTONITE	SPECCELL C	DESCO	THINNERS	POLYMERS				OTHERS																	
	1984									CMC	LOVIS	CMC	HLVIS			CAUSTIC	SODA	SODA	ASH	GYP SUM	SODIUM	BICARB.	ALUM.	STEARATE	DRUG.	DETERGENT	NUT	PLUG	ANCONOL	DEFOAMER		
85	18.10		4																													
86	19.10	96	17																													
87	20.10	40	126																													
FORWARD		996	1591.5	3083.5	824	135	93		892	33						686	88															
ESTIMATED TOTALS		1134	1738.5	3083.5	824	135	93		892	33						686	88															
REMARKS:																																

WELL NAME 34/10-21 AREA NORTH SEA
 OPERATOR STATOIL RIG. DYVI DELTA
 ENGINEERS GEL/SEAWATER
Drilling Mud Properties Record

 MUD SYSTEM GEL/SEAWATER

Day No.	DATE	DEPTH	MUD PROPERTIES																			OPERATION REMARKS		
			DENSITY PPG □ SG □		VISCOSITY				GELS	FLUID LOSS 30 Min cc's	CAKE 32 nds	H.T.H.P. cc's	pH	Filtrate Analysis			RETORT		BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL		"N"	"K"
			FEET □ METERS □	Meter	sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.	0					10	X 1000	Cl ppm	Ca ++ ppm	Pl						
1	26/ 7	165	1.09	80																				
2	27/ 7	226	1.04	80																				
3	28/ 7	228	1.04	60	28.0	9	38	12/20			9.5	7	200	.10							.25	9.73		
4	29/ 7	525	1.08	48	27.0	7	40	10/13			10.0	14	200	.20			.25				.20	13.49		
5	30/ 7	525	1.22	48	26.0	7	38	13/19			9.5	13	400	.10			.25				.21	12.26		
6	31/ 7	525	1.22	48	28.0	8	40	14/19			9.5	14	400	.10			.25				.22	12.00		
7	1/ 8	525	1.10	35	15.0	11	8	4/4	22.0	3	10.0	13	2700	.10			.25	13.00			.66	.31		
8	2/ 8	787	1.10	43	13.5	5	17	7/19	29.0	3	9.5	12	1520	.15	0.0	7.00	.25	14.00			.30	3.49		
9	3/ 8	1291	1.10	42	12.5	6	13	10/28	20.0	2	9.4	12	1160	.10	0.0	7.00	.25	18.00			.40	1.61		
10	4/ 8	1769	1.17	42	14.0	6	16	11/23	23.0	2	9.4	13	1320	.10	0.0	8.00	.25	21.00			.35	2.52		
11	5/ 8	1915	1.17	40	13.0	8	10	8/28	21.0	2	9.4	16	1320	.10	0.0	9.00	.25	20.00			.53	.66		
12	6/ 8	1915	1.20	45	15.5	9	13	11/41	20.0	2	9.5	15	1200	.15	0.0	10.00	.25	23.00			.49	1.01		
13	7/ 8	1915	1.22	45	17.5	10	15	14/42	19.0	2	9.5	15	1200	.10	0.0	10.00	.25	24.00			.49	1.21		
14	8/ 8	1915	1.22	45	17.5	10	15	12/23	19.0	2	10.0	9	1240	.20	0.0	10.00	.25	18.00			.49	1.21		

REMARKS

Drilling Mud Properties Record

 MUD SYSTEM GYP/LIGNO

 WELL NAME 34/10-21

 AREA NORTH SEA

 OPERATOR STATOIL

 RIG DYVI DELTA

 ENGINEERS WIJK/VAAGA

Day No.	DATE	DEPTH	MUD PROPERTIES																			OPERATION REMARKS		
			FEET <input type="checkbox"/> METERS <input type="checkbox"/>		DENSITY PPG <input type="checkbox"/> SG <input type="checkbox"/>				VISCOSITY				GELS	FILTRATE ANALYSIS				RETORT			"N"		"K"	
			1984	Meter	SG	sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.	0	FLUID LOSS 30 Min cc's	CAKE 32 rds	H.T.H.P. cc's	pH	X 1000	CF ppm	Ca. ++ ppm	PI	% OIL	% SOLIDS				% SAND
15	9/ 8	1918	1.29	41	13.0	9	8	3 29	19.0	2	12.6	9	1420	.60	0.0	12.50	.25	16.00			.61	.37		
16	10/ 8	1996	1.29	44	19.0	13	12	9 36	22.0	2	12.6	9	1140	.65	0.0	13.00	.25	17.00			.60	.58		
17	11/ 8	2242	1.26	45	19.0	14	10	6 52	13.0	2	10.0	9	1720	.15	0.0	12.00	.25	25.00			.66	.39		
18	12/ 8	2362	1.26	47	18.5	13	11	9 64	10.0	1	26.0	9.6	11	1800	.10	0.0	13.50	.25	29.00			.62	.49	
19	13/ 8	2438	1.26	44	16.5	11	11	9 62	11.5	1	33.0	9.9	14	1800	.15	0.0	13.00	.25	26.00			.58	.57	
20	14/ 8	2510	1.26	58	19.5	13	13	9 62	11.5	1	32.0	10.0	15	2100	.20	0.0	13.00	.25	25.00			.58	.68	
21	15/ 8	2670	1.26	47	18.5	13	11	9 65	11.5	1	34.0	9.8	17	1920	.20	0.0	12.00	.25	26.00			.62	.49	
22	16/ 8	2829	1.26	47	19.5	13	13	7 58	11.0	1	32.0	10.2	17	2100	.20	0.0	12.00	.25	26.00			.58	.68	
23	17/ 8	2880	1.27	47	21.0	14	12	5 52	10.0	1	33.0	10.4	16	2160	.20	0.0	12.00	.25	26.00			.62	.54	
24	18/ 8	2949	1.33	44	23.5	17	13	4 42	9.5	1	27.0	10.4	17	1840	.15	0.0	12.00	.25	28.00			.65	.53	
25	19/ 8	3033	1.33	43	23.5	17	13	4 38	8.5	1	27.0	10.2	17	1680	.20	0.0	15.00	.25	28.00			.65	.53	
26	20/ 8	3054	1.39	47	25.0	16	15	5 48	8.8	1	25.0	10.3	18	1560	.20	0.0	16.00	.25	27.50			.60	.73	
27	21/ 8	3135	1.39	48	25.0	17	16	5 40	8.0	1	25.5	10.2	20	1440	.15	0.0	16.00	.25	27.50			.60	.79	
28	22/ 8	3186	1.44	50	28.0	19	18	8 62	8.5	1	25.0	10.1	20	1520	.10	0.0	18.00	.25	27.00			.60	.89	

REMARKS



ANCHOR DRILLING FLUIDS AS

OSLO - STAVANGER

WELL NAME 34/10-21 AREA NORTH SEA
 OPERATOR STATOIL RIG. DYVI DELTA
 ENGINEERS SUNDE/LAURITZEN/VAAGA

Drilling Mud Properties Record
 MUD SYSTEM GYP/LIGNO

Day No.	DATE	DEPTH FEET <input type="checkbox"/> METERS <input type="checkbox"/> 1984 Meter	MUD PROPERTIES																				OPERATION REMARKS	
			DENSITY PPG <input type="checkbox"/> SG <input type="checkbox"/>	VISCOSITY				GELS 0 10	FLUID LOSS 30 Min cc's	CAKE 32 rds	H.T.H.P. cc's	PH	Filtrate Analysis			RETORT		BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL	"N"	"K"		
				sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.						T.H.	Ca. ++ ppm	PI	% OIL	% SOLIDS							% SAND
29	23/ 8	3196	1.44	47	26.0	18	16	7 50	8.5	1	25.0	10.0	20	1480	.10		18.00	.25	26.00			.61	.75	
30	25/ 8	3196	1.44	52	23.5	17	13	6 54	8.5	1		10.0	20	1320	.10		18.00	.25	26.50			.65	.53	
31	26/ 8	3196	1.44	53	23.5	17	13	6 50	8.5	1		9.8	20	1520	.10		18.00	.25	26.50			.65	.53	
32	26/ 8	3196	1.44	46	20.0	13	14	5 44	9.2	1		9.0	19	880	.10		18.00	.25	26.00			.57	.79	
33	27/ 8	3220	1.44	48	25.0	17	16	5 40	9.0	2		9.3	20	1280	.05		18.00	.25	26.00			.60	.79	
34	28/ 8	3283	1.44	45	19.0	12	14	5 29	7.2	1	20.2	9.3	20	1240	.05		18.00	.25	24.00			.55	.86	
35	29/ 8	3307	1.44	46	20.5	14	14	4 26	7.0	1	21.0	9.7	20	1160	.05		18.00	.25	24.00			.58	.73	
36	30/ 8	3342	1.44	46	20.0	14	12	4 18	6.4	1	20.0	9.7	20	1320	.10	0.0	18.00	.25	26.00			.62	.54	
37	31/ 8	3382	1.44	47	20.0	14	12	3 17	6.1	1	20.0	9.8	20	1240	.10	0.0	18.00	.25	25.00			.62	.54	
38	1/ 9	3426	1.44	47	21.0	15	12	3 19	6.1	1	20.0	9.5	20	1320	.05	0.0	18.00	.25	25.00			.64	.51	
39	2/ 9	3467	1.44	49	21.0	15	12	3 20	5.9	1	20.0	9.5	20	1320	.05	0.0	18.00	.25	25.00			.64	.51	
40	3/ 9	3554	1.44	47	20.0	14	12	3 22	6.0	1	20.2	9.9	21	1400	.10	0.0	18.00	.25	22.00			.62	.54	
41	4/ 9	3583	1.44	51	23.0	16	14	4 23	5.9	1	20.0	9.3	20	1440	.05	0.0	18.00	.25	23.00			.62	.64	
42	5/ 9	3612	1.44	50	21.5	15	13	4 24	5.9	1	20.0	9.3	20	1440	.05	0.0	20.00	.25	25.00			.62	.59	
REMARKS																								



ANCHOR DRILLING FLUIDS AS

OSLO - STAVANGER

WELL NAME 34/10-21 AREA NORTH SEA
 OPERATOR STATOIL RIG DYVI DELTA
 ENGINEERS WIJK/VAAGA/SHEPHERD

Drilling Mud Properties Record
 MUD SYSTEM GEL/LIGNO

Day No.	DATE	DEPTH	MUD PROPERTIES																				OPERATION REMARKS			
			FEET <input type="checkbox"/> METERS <input type="checkbox"/>	SG	VISCOSITY				GELS	FLUID LOSS 30 Min cc's	CAKE 32 rds	H.T.H.P. cc's	pH	Filtrate Analysis			RETORT		BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL	"N"		"K"		
					sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.						0	10	Cl ⁻ ppm	Ca ⁺⁺ ppm	PI							% OIL	% SOLIDS
1984	Meter	SG	sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.	0	10	FLUID LOSS 30 Min cc's	CAKE 32 rds	H.T.H.P. cc's	pH	X 1000	T.H.	Cl ⁻ ppm	Ca ⁺⁺ ppm	PI	% OIL	% SOLIDS	% SAND	BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL	"N"	"K"	
43	6/ 9	3612	1.44	52	22.0	15	14	4	23	5.8	1	20.0	9.2	20	1420	.05	0.0	20.00	.25	25.00			.60	.68		
44	7/ 9	3634	1.44	50	23.0	16	14	3	26	5.2	1	20.0	9.4	20	1200	.05	0.0	20.00	.10	26.50			.62	.64		
45	8/ 9	3688	1.44	48	22.0	16	12	3	22	5.8	1	20.3	9.8	21	1020	.05	0.0	20.00	.10	24.00			.65	.48		
46	9/ 9	3689	1.44	49	22.5	16	13	3	24	5.8	1	20.2	.9	21	1000	.05	0.0	20.00	.10	24.00			.63	.56		
47	10/ 9	3700	1.44	51	22.0	16	12	3	22	5.8	1	20.2	9.6	21	1080	.05	0.0	20.00	.10	24.50			.65	.48		
48	11/ 9	3708	1.44	50	21.5	16	11	3	23	5.8	1	20.0	9.8	21	1160	.10	0.0	20.00	.10	24.00			.67	.41		
49	12/ 9	3760	1.44	49	22.5	17	11	3	22	5.9	1	20.0	9.7	20	1000	.05	0.0	20.00	.10	25.00			.68	.39		
50	13/ 9	3839	1.44	50	24.5	18	13	3	26	5.8	1	19.8	10.1	20	880	.05	0.0	20.00	.10	24.50			.66	.51		
51	14/ 9	3904	1.44	52	24.0	18	12	3	26	5.9	1	20.0	9.9	20	580	.05	0.0	20.00	.10	22.00			.68	.44		
52	15/ 9	3951	1.44	50	21.0	15	12	3	24	5.6	1	19.0	10.1	20	440	.10	0.0	20.00	.10	21.50			.64	.51		
53	16/ 9	3960	1.44	49	19.0	13	12	3	21	5.9	1	19.0	10.1	20	460	.05	0.0	20.00	.10	21.00			.60	.58		
54	17/ 9	3960	1.44	51	21.5	16	11	3	19	5.8	1	19.0	9.7	20	420	.05	0.0	20.00	.10	21.00			.67	.41		
55	18/ 9	3960	1.44	54	22.0	16	12	3	21	5.8	1	19.0	9.9	19	400	.05	0.0	20.00	.10	20.00			.65	.48		
56	19/ 9	3973	1.44	52	22.0	16	12	3	23	5.9	1	20.0	10.0	18	200	.05	0.0	20.00	.10	21.00			.65	.48		
REMARKS																										

Drilling Mud Properties Record
 MUD SYSTEM GEL/LIGNO

 WELL NAME 34/10-21
 OPERATOR STATOIL
 ENGINEERS SHEPHERD/PARSONS

 AREA NORTH SEA
 RIG. DYVI DELTA

Day No.	DATE	DEPTH	MUD PROPERTIES																				OPERATION REMARKS			
			FEET METERS	SG	VISCOSITY				GELS 0	FLUID LOSS 30 Min cc's	CAKE 32 rds	H.T.H.P. cc's	PH	Filtrate Analysis			RETORT		BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL	"N"		"K"		
					sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.						CI ppm	Ca. ++ ppm	PI	% OIL	% SOLIDS							% SAND	CORR.
1984	Meter	SG	sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.	10	0	FLUID LOSS 30 Min cc's	CAKE 32 rds	H.T.H.P. cc's	PH	CI ppm	Ca. ++ ppm	PI	% OIL	% SOLIDS	% SAND	BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL	"N"	"K"			
57	20/ 9	3973	1.44	66	22.0	16	12	3/24	5.8	1	20.0	9.9	18	200	.05	0.0	20.00	.10	21.00			.65	.48			
58	21/ 9	3975	1.44	53	23.0	17	12	3/23	5.9	1	20.0	10.1	17	200	.10	0.0	20.00	.10	22.00			.67	.46			
59	22/ 9	3985	1.44	52	22.0	16	12	3/24	6.4	1	20.0	10.1	15	160	.12	0.0	20.00	.10	22.00			.65	.48			
60	23/ 9	4002	1.44	53	24.0	18	12	3/25	6.0	1	19.0	10.0	16	120	.15	0.0	20.00	.10	22.00			.68	.44			
61	24/ 9	4005	1.44	66	24.0	18	12	3/24	5.9	1	19.0	9.5	16	120	.10	0.0	20.00	.10	22.50			.68	.44			
62	25/ 9	4005	1.44	53	22.5	17	10	3/24	6.0	1	19.0	9.5	16	100	.10	0.0	20.00	.10	22.50			.70	.33			
63	26/ 9	4005	1.45	56	31.0	24	14	3/23	7.5	1		9.6	16	340	.90	0.0	21.00	.50	22.50			.71	.47			
64	27/ 9	4005	1.45	68	32.0	25	14	5/35	7.6	1		12.5	16	360	1.20	0.0	21.00	.10	22.00			.71	.45			
65	28/ 9	4005	1.44	58	26.5	21	11	4/19	7.6	1		12.2	16	360	1.10	0.0	21.00	.10	22.50			.73	.34			
66	29/ 9	4005	1.44	61	25.5	21	9	3/20	7.8	1		12.2	16	400	1.10	0.0	21.00	.10	22.00			.77	.25			
67	30/ 9	4005	1.44	68	26.5	20	13	4/23	7.6	1		12.3	16	400	1.10	0.0	21.00	.08	22.00			.68	.47			
68	1/10	4005	1.44	59	26.0	21	10	4/22	7.8	1		12.3	16	400	1.20	0.0	21.00	.08	22.00			.75	.30			
69	2/10	4005	1.44	59	25.5	20	11	4/21	7.8	1		12.3	16	400	1.20	0.0	21.00	.08	22.00			.72	.35			
70	3/10	4005	1.44	57	24.0	19	10	3/19	7.8	1		12.4	16	400	1.30	0.0	21.00	.08	22.00			.73	.31			
REMARKS																										

Drilling Mud Properties Record

 MUD SYSTEM GEL/LIGNO

 WELL NAME 34/10-21

 AREA NORTH SEA

 OPERATOR STATOIL

 RIG DYVI DELTA

 ENGINEERS PARSONS/SHEPHERD

Day No.	DATE	DEPTH	MUD PROPERTIES																				OPERATION REMARKS			
			FEET <input type="checkbox"/> METERS <input type="checkbox"/>	VISCOSITY							GELS	FLUID LOSS 30 Min cc's	CAKE 32 rds	H.T.H.P. cc's	PH	Filtrate Analysis			RETORT		BENTONITE #/BBL	POTASH #/BBL		POLYMER #/BBL	"N"	"K"
				1984	Meter	SG DENSITY PPG <input type="checkbox"/> SG <input type="checkbox"/>	sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq.ft.						0	10	1000	T.H.	Ca. +- ppm						
71	4/10	4005	1.44	59	26.0	21	10	3/23	7.6	1	12.2	16	400	1.10	0.0	21.00	.08	22.00			.75	.30				
72	5/10	4005	1.44	47	22.0	18	8	3/12	8.2	1	11.8	17	320	.90	0.0	20.00	.08	20.00			.76	.23				
73	6/10	4005	1.44	46	23.0	19	8	2/12	8.2	1	11.8	17	280	.80	0.0	20.00	.08	20.00			.77	.22				
74	7/10	4005	1.44	47	24.0	20	8	3/12	8.2	1	11.8	17	300	.70	0.0	20.00	.08	20.00			.78	.22				
75	8/10	4005	1.44	46	22.0	18	8	3/10	8.2	1	11.8	17	320	.70	0.0	20.00	.08	20.00			.76	.23				
76	9/10	4005	1.44	48	22.5	18	9	3/12	8.2	1	12.3	17	360	1.20	0.0	18.00	.08	20.00			.74	.27				
78	11/10	4005	1.44	45	16.5	13	7	2/12	11.0	1	12.4	17	600	1.00		18.00		20.00			.72	.22				
79	12/10	4005	1.44	44	15.5	12	7	2/13	11.0	1	12.3	17	360	.95		18.00		18.00			.71	.23				
80	13/10	4005	1.44	43	15.5	12	7	2/12	11.0	1	12.3	17	360	.95		18.00		18.00			.71	.23				
81	14/10	4005	1.44	43	15.5	12	7	2/12	11.0	1	12.4	17	380	1.00		18.00		18.00			.71	.23				
82	15/10	4002	1.44	43	15.5	12	7	2/13	11.0	1	12.4	17	380	1.00		18.00		18.00			.71	.23				
83	16/10	4002	1.44	44	15.5	12	7	2/13	11.0	1	12.4	17	380	1.00		18.00		18.00			.71	.23				
84	17/10	4002	1.44	43	15.5	12	7	2/15	12.0	1	11.4	16	480	.70		18.00		15.00			.71	.23				
85	18/10	4002	1.44	42	15.5	12	7	2/14	12.0	1	11.2	16	480	.70		18.00		15.00			.71	.23				
REMARKS																										

