OPERATOR A/S NORSKE SHELL

WELL NO. 31/2-10

MATERIAL CONSUMPTION & COST ANALYSIS

36" HOLE DRILLED TO 472 Meters ~~Feet~~ 30" CASING SET AT 454 Meters ~~Feet~~

ACTUAL AMOUNT OF HOLE DRILLED 113 Meters ~~Feet~~ DAYS ON INTERVAL 1

DRILLING FLUID SYSTEM SPUD MUD

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST US $
BENTONITE	MT	20	20	-	6.560,-
CAUSTIC SODA	25 kg	20	14	- 6	266,-
SODA ASH	50 kg	3	14	+11	259,-
$CaCl_2$	50 kg	0	58	-	1.334,-

COST/DAY US$ 8.419,- TOTAL COST FOR INTERVAL US$ 8.419,-

COST/Mt. or ~~Ft~~ US$ 74,50 PROG. COST FOR INTERVAL US$ 7.025,-

ENGR. COST COST VARIANCE FOR INTERVAL US$+1.394,-

OPERATOR A/S NORSKE SHELL

WELL NO. 31/2-10

MATERIAL CONSUMPTION & COST ANALYSIS

14 3/4" Pilot

26" HOLE DRILLED TO 810 ~~Feet~~ Meters 20" CASING SET AT 793 ~~Feet~~ Meters

ACTUAL AMOUNT OF HOLE DRILLED 340 ~~Feet~~ Meters DAYS ON INTERVAL 4

DRILLING FLUID SYSTEM GEL/SEAWATER

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST ~~US $~~
BARITE	MT	0	74	+ 74	9.916,-
BENTONITE	MT	45	30	- 15	9.840,-
CAUSTIC SODA	25 kg	50	29	- 21	551,-
$CaCl_2$	50 kg	0	26	+ 26	598,-
SODA ASH	50 kg	8	19	+ 11	351.50
LF-5	25 kg	44	0	- 44	-

COST/DAY US$ 5.314,13 TOTAL COST FOR INTERVAL US$ 21.256,50

COST/Mt. ~~Ft~~ US$ 62,52 PROG. COST FOR INTERVAL US$ 17.970,-

ENGR. COST COST VARIANCE FOR INTERVAL US$+ 3.286,50

OPERATOR A/S NORSKE SHELL

WELL NO. 31/2-10

MATERIAL CONSUMPTION & COST ANALYSIS

17 ½" HOLE DRILLED TO 1530 Meters ~~Feet~~ 13 3/8" CASING SET AT 1514 Meters ~~Feet~~

ACTUAL AMOUNT OF HOLE DRILLED 720 Meters ~~Feet~~ DAYS ON INTERVAL 6

DRILLING FLUID SYSTEM KCl/POLYMER

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST US $
BARITE	MT	205	168	- 137	22.512,-
DRISPAC REGULAR	50 lbs	90	82	- 8	13.882,60
CAUSTIC SODA	25 kg	115	61	- 54	1.159,-
SODA ASH	50 kg	30	45	+ 15	832,50
CMC LOVIS	25 kg	81	58	- 23	3.422,-
LF-5	25 kg	180	117	- 63	5.616,-
ANCOPOL	55 lbs	85	68	- 17	10.064,-
KCl sacks	50 kg	954	73	- 881	1.306,70
KCl brine	bbls	0	1408	+1408	30.835,20
DRILLING DETERGENT	200 ltr.	15	0	- 15	-

COST/DAY US$ 14.938,33 TOTAL COST FOR INTERVAL US$ 89.630,-

COST/Mt. ~~of Ft.~~ US$ 124,49 PROG. COST FOR INTERVAL US$ 92.412,60

ENGR. COST COST VARIANCE FOR INTERVAL US$ 2.782,60

OPERATOR A/S NORSKE SHELL

WELL NO. 31/2-10

MATERIAL CONSUMPTION & COST ANALYSIS

12 1/4" HOLE DRILLED TO 1833 Meters / Feet – CASING SET AT – Meters / Feet

8½" ACTUAL AMOUNT OF HOLE DRILLED 303 Meters / ~~Feet~~ DAYS ON INTERVAL 14

DRILLING FLUID SYSTEM SEAWATER/DRISPAC

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST
BARITE	MT	100	36	- 64	4.824,-
BENTONITE	MT	0	0	0	-
BENTONITE	50 kg	220	0	- 220	-
CAUSTIC SODA	25 kg	70	36	- 34	684,-
SODA ASH	50 kg	4	18	+ 14	333,-
LF-5	25 kg	50	74	+ 24	3.552,-
CMC LOVIS	25 kg	25	55	+ 30	3.245,-
DRISPAC REGULAR	50 lbs	60	51	- 9	8.634,30
LIGNO	25 kg	175	0	- 175	-
XC-POLYMER	50 lbs	15	0	- 15	-
DRILLING DETERGENT	200 l.	10	0	- 10	-

COST/DAY US$ 1.519,45 TOTAL COST FOR INTERVAL US$ 21.272,30

COST/Mt. ~~or Ft~~ US$ 70.21 PROG. COST FOR INTERVAL US$ 44.221,-

ENGR. COST COST VARIANCE FOR INTERVAL US$-22.948,70

OPERATOR A/S NORSKE SHELL

WELL NO. 31/2-10

TOTAL CONSUMPTION & COST ANALYSIS

TOTAL DEPTH 1833 Meters

TOTAL HOLE DRILLED 1477 Meters

TOTAL DAYS 27

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST
BARITE	MT	305	278	- 27	US$ 37.252,-
BENTONITE	MT	65	50	- 15	16.400,-
BENTONITE	50 kg	220	0	- 220	-
CAUSTIC SODA	25 kg	255	140	- 115	2.660,-
SODA ASH	50 kg	45	96	+ 51	1.776,-
LIME	25 kg	6	0	- 6	-
KCl brine	bbls	0	1408	+ 1408	30.835,20
KCl sxs	50 kg	954	73	- 881	1.306,70
ANCOPOL	25 kg	85	68	- 17	10.064,-
DRILLING DETERGENT	200 l.	25	0	- 25	-
LF-5	25 kg	274	191	- 83	9.168,-
CMC LOVIS	25 kg	106	113	+ 7	6.667,-
LIGNO	25 kg	175	0	- 175	-
DRISPAC REGULAR	50 lbs	150	133	- 17	22.516,90
XC-POLYMER	50 lbs	15	0	- 15	-
CALCIUM CHLORIDE	50 kg	0	84	+ 84	1.932,-

COST/DAY US$ 5.206,58

TOTAL COST FOR WELL US$ 140.577,80

COST/Mt US$ 95,18

PROG. COST FOR WELL US$ 161.629,10

ENGR. COST

COST VARIANCE FOR WELL US$ -21.051,30

ANCHOR DRILLING FLUIDS AS

OSLO — STAVANGER

Drilling Fluid & Material Consumption Report

MUD SYSTEM SPUD MUD - GEL/SEAWATER - KCl/POLYMER

WELL NAME 31/2-10 AREA NORTH SEA NORWAY

OPERATOR A/S NORSKE SHELL RIG. BORGNY DOLPHIN

ENGINEERS BLANCHARD/ATKINSON

Day	DATE 1982	ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE	LOSSES SURFACE	VOLUME MUD BUILT	BULK MATERIALS: BARITE MT	BENTONITE MT	SACK MATERIALS	THINNERS					POLYMERS: DRISPAC REG.	CMC LOVIS	CMC HIVIS	ANCO-POL		OTHERS: KCl SXS	KCl bbls	CAUSTIC SODA	SODA ASH	$CaCl_2$	LF-5				
1	1.10																										
2	2.10	1850		1950		19														14	14						
3	3.10		100	1500		18														9	8	58					
4	4.10		196	500	16															5	2						
5	5.10	794		350	16															8	2						
6	6.10	1050		1050	32	10														7	7						
7	7.10	1360			10	3																26					
8	8.10			1500	70								36	28		20		45	650	23	20		57				
9	9.10				NONE USED																						
10	10.10	211	200	1050	48								27	18		35			758	20	20		36				
11	11.10		41	350	37								18	12		13				16	5		24				
12	12.10			300	5													28		2							
13	13.10	85	141		8								1														
14	14.10		754	600									32	53						24	17		42				
FORWARD																											
ESTIMATED TOTALS		5350	1432	9150	242	50							114	111		68		73	1408	128	95	84	159				

REMARKS

ANCHOR DRILLING FLUIDS A/S

OSLO — STAVANGER

WELL NAME 31/2-10 AREA NORTH SEA NORWAY

OPERATOR A/S NORSKE SHELL RIG. BORGNY DOLPHIN

ENGINEERS BLANCHARD/ATKINSON

Drilling Fluid & Material Consumption Report

MUD SYSTEM SEAWATER/DRISPAC

Day	DATE 1982	ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE	LOSSES SURFACE bbls	VOLUME MUD BUILT	BULK MATERIALS: BARITE MT	BENTONITE MT	SACK MATERIALS	MATERIALS ADDED TO CONTROL PROPERTIES: THINNERS				POLYMERS: DRISPAC REG.	CMC LOVIS	CMC HIVIS	ANCO-POL		OTHERS: KCl sxs	KCl bbls	CAUSTIC SODA	SODA ASH	CaCl2	LF-5				
15	15.10		20	63	4														3			8				
16	16.10		19	10								5														
17	17.10			11	10							4														
18	18.10				4														4							
19	19.10				3																	12				
20	20.10				3																	8				
21	21.10				3							2														
22	22.10		170	60	4							2	2						1	1		4				
23	23.10				3							2							4							
24	24.10		21		2							4														
25	25.10				NONE USED																					
26	26.10																									
27	27.10																									
28	28.10																									
FORWARD		5350	1432	9150	242	50						114	111		68		73	1408	128	95	84	159				
ESTIMATED TOTALS		5350	1673	9294	278	50						133	113		68		73	1408	140	96	84	191				

REMARKS

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Drilling Mud Properties Record

WELL NAME 31/2-10 AREA NORTH SEA NORWAY
OPERATOR A/S NORSKE SHELL RIG. BORGNY DOLPHIN
MUD SYSTEM GEL/SEAWATER (SPUD MUD) - KCl/POLYMER
ENGINEERS C. BLANCHARD

Day No.	DATE 1982	DEPTH FEET □ METERS ☒	MUD PROPERTIES: DENSITY PPG □ SG ☒	VISCOSITY: sec/qt	A V cps	P.V. cps	Y.P #/100 sq.ft	GELS 0 / 10	FLUID LOSS 30 Min cc's	CAKE 32 nds	H T H P cc's	pH	X .Cl⁻ ppm 1000	Filtrate Analysis: Ca ++ ppm	Pf	RETORT: % OIL	% SOLIDS	% SAND	BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL	"N"	"K"	OPERATION REMARKS
1	1.10																							
2	2.10	470	1.06	100+																				
3	3.10	474	1.06	70+																				
4	4.10	704	1.06	55	40	10	60																	
5	5.10	812	1.08	70																				
6	6.10	787	1.06	100+																				
7	7.10				P R E P A R E D				N E W		K C l		M U D											
8	8.10	810	1.26	50	32.5	22	21	2/2	5.0	1		11.5	74	200	3/4.5		11			42		0.59	1.0	
9	9.10	810	1.26	52	32.5	22	21	2/3	5.0	1		11.5	74	200	2.8/4.5		11			42		0.59	1.0	
10	10.10	1250	1.29	48	36	26	20	2/3	4.7	1		10.0	68	240	2.5/0.5		13		10	39		0.62	0.98	
11	11.10	1530	1.35	58	45	35	20	6/16	6.0	1		10.4	62	320	0.25/0.45		14		21	35		0.7	0.69	
12	12.10	1530	1.36	47	37	30	14	4/10	6.0	1		10.2	64	320	0.2/0.45		15		23	35		0.74	0.43	
13	13.10	1530	+ 1.35	51	37	30	14	3/10	6.0	1		10.1	64	340	0.2/0.4		15		24	35		0.7	0.4	
14	14.10	1575	1.17	47	31.5	21	21	3/4	4.2	1		11.0	38	120	0.5/1.0		10		12			0.59	1.2	

REMARKS

ANCHOR DRILLING FLUIDS AS

OSLO – STAVANGER

Drilling Mud Properties Record

WELL NAME 31/2-10 AREA NORTH SEA NORWAY

OPERATOR A/S NORSKE SHELL RIG. BORGNY DOLPHIN

MUD SYSTEM SEAWATER/DRISPAC ENGINEERS CHRIS ATKINSON

Day No	DATE	DEPTH FEET □ METERS ☒	MUD PROPERTIES: DENSITY PPG □ SG ☒	VISCOSITY: sec/qt	A.V. cps	P.V. cps	Y.P. #/100 sq ft	GELS 0/10	FLUID LOSS 30 Min cc's	CAKE 32nds	H.T.H.P. cc's	pH	Filtrate Analysis: X Cl⁻ ppm	Ca⁺⁺ ppm	PI	RETORT: % OIL	% SOLIDS	% SAND	BENTONITE #/BBL	POTASH #/BBL	POLYMER #/BBL	"N"	"K"	OPERATION REMARKS
	1982												1000											
15	15.10	1588	+ 1.17	49	29	20	18	2/3	3.9	1		11.5	38	100	0.6 1.2		10	TR	12.5			0.64	0.95	
16	16.10	1610	+ 1.17	50	29	20	18	2/3	3.9	1		11.5	38	100	0.5 1.05		10	TR	12.5			0.64	0.95	
17	17.10	1637	1.18	50	30.5	21	19	2/3	3.8	1		11.5	38	100	0.4 0.9		10	TR	13			0.63	1.02	
18	18.10	1655	1.18	49	30.5	21	19	2/3	3.9	1		11.5	38	80	0.55 1.15		10	TR	12.5			0.63	1.02	
19	19.10	1663	1.18	49	30	21	18	2/2	3.7	1		11.5	38	80	0.5 1.10		10	TR	12.5			0.62	0.97	
20	20.10	1686	1.18	50	30.5	21	19	2/3	3.6	1		11.5	37.5	80	0.45 1.0		10	1/4	12			0.63	1.02	
21	21.10	1704.5	1.18	50	30	21	18	2/2	3.6	1		11.4	37	80	0.425 0.95		10	1/4	12.5			0.62	0.97	
22	22.10	1706.5	1.18	50	30	21	18	2/2	3.6	1		11.4	37	80	0.425 0.975		10	1/4	12.5			0.62	0.97	
23	23.10	1741.5	1.18	51	30	21	18	2/3	3.6	1		11.4	37	80	0.55 1.15		10	TR	12.5			0.62	0.97	
24	24.10	1833	1.18	50	30	21	18	2/3	3.6	1		11.3	37	80	0.4 0.85		10	TR	12.5			0.65	0.92	
25	25.10	1833	1.18	50	30	21	18	2/3	3.6	1		11.3	37	80	0.4 0.85		10	TR	12.5			0.65	0.92	
26	26.10	1833																						

REMARKS