



TOTAL MUD MATERIALS USED FOR WELL

COMPANY STATOIL A/S WELL NO. 6407/6-1 PAGE 1 of 1

Quantity	Material	Unit/Weight	Unit Cost	Total Cost
111.5	Bentonite	MT	403.60	45,001.40
231	Caustic Soda	25 kg	22.47	5,190.57
15	Soda Ash	50 kg	22.79	341.85
509.5	Barite	MT	151.20	77,036.40
498	Unical	25 kg	22.60	11,254.80
473	Gypsum	40 kg	10.82	5,117.86
85	Drispac Regular	50 lb	199.00	16,915.00
133	Drispac Superlo	50 lb	208.00	27,664.00
4	Lime	40 kg	10.82	43.28
3	Bicarbonate	50 kg	26.57	79.71
1	LD-8	5 gal	179.60	179.60
3	Nutplug Fine	25 kg	21.53	64.59

TOTAL COST FOR WELL \$ 188,889.06

DEPTH AT T.D. 2895 m

AVERAGE COST per METER for WELL \$ 65.25



COMPLETION INTERVAL

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Casing Size Meters (Bit Size) Meters
30 " from 250 m to 313 m 36 " hole from 250 m to 316 m

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Bentonite	23	MT	403.60	9,282.80
Caustic Soda	6	25 kg	22.47	134.82
Soda Ash	3	50 kg	22.79	68.37

Material Cost for Interval \$ 9,485.99 Average Cost per meter \$ 143.73

Number of Days 2 Average Cost per Day \$ 4,743.00

Comments

36" hole was drilled with seawater and high viscous slugs. No problems was encountered during drilling. Hole was displaced to gel mud before and after wipertrip.

On first attempt to run 30" casing the shoe was not able to pass 285 m. The casing was pulled and a wipertrip was made with 2 hole openers, washing tight spots. The hole was displaced with gel mud and 30" casing was run and cemented successfully.



COMPLETION INTERVAL

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Casing Size Meters (Bit Size) Meters
20 " from 313 m to 456 m 26 " hole from 313 m to 460 m

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Barite	108	MT	151.20	16,329.60
Bentonite	21	MT	403.60	8,475.60
Caustic Soda	16	25 kg	22.47	359.52
Lime	4	40 kg	10.82	43.28
Soda Ash	2	50 kg	22.79	45.58

Material Cost for Interval \$ 25,253.58 Average Cost per meter \$ 171.79

Number of Days 5 Average Cost per Day \$ 5,050.72

Comments

Drilled 12 1/4" pilot hole to 460 m and reamed out to 26". Displaced hole to 1.30 s.g. mud and attempted to run 20" casing. Got stuck 20 m below shoe. Pulled free. Cleaned out hole to bottom with 26" bit allowing return mud go to the seabed. Made wiper trip and circulated high viscosity slug before displacing hole with 1.30 s.g. mud. Ran and cemented 20" casing.

20" casing depth was reduced due to possible shallow gas.



COMPLETION INTERVAL

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Casing Size 12 1/4 " from 456 m to 1334 m (Bit Size) 17 1/2 " hole from 456 m to 1349 m Meters Meters

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Unical	198	25 kg	22.60	4,474.80
Barite	157	MT	151.20	23,738.40
Gypsum	157	40 kg	10.82	1,698.74
Caustic Soda	58	25 kg	22.47	1,303.26
Drispac Superlo	37	50 lb	208.00	7,696.00
Bentonite	29.5	MT	403.60	11,906.20
Drispac Regular	26	50 lb	199.00	5,174.00
Soda Ash	3	50 kg	22.79	68.37

Material Cost for Interval \$ 56,059.77 Average Cost per meter \$ 62.78

Number of Days 7 Average Cost per Day \$ 8,008.54

Comments

Drilled 17 1/2" hole to 1347 m with gyp-lignosulfonate mud using solids control equipment to maximum.

Penetration rate was controlled to \pm 30 m/hr. No special problems was experienced during drilling other than some tight hole below 1100 m on wiper trip. Continues on next page.

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Mud weight was increased from 1.10 to 1.28 s.g. due to increase in pore pressure. The gyp-ligno mud seemed to give satisfactory inhibition although some bad sticky clay was seen over the shaker for some time.

Logs were run and hole was circulated clean before casing were successfully run and cemented. However, some 8.5 m³ mud were lost when displacing cement and 30 m³ severely cement contaminated mud were dumped due to cement in return.



COMPLETION INTERVAL

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Casing Size Meters (Bit Size) Meters
9 5/8 " from 1334 m to 1873 m 12 1/4 " hole from 1334 m to 1888 m

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Unical	274	25 kg	22.60	6,192.40
Gypsum	222	40 kg	10.82	2,402.04
Barite	204	MT	151.20	30,844.80
Caustic Soda	102	25 kg	22.47	2,291.94
Drispac Superlo	61	50 lb	208.00	12,688.00

Material Cost for Interval \$ 54,419.18 Average Cost per meter \$ 98.23

Number of Days 11 Average Cost per Day \$ 4,947.20

Comments

12 1/4" hole was drilled from 1334 m to 1888 m with same system as the previous interval using the finest possible screens on shakers and mudcleaners.

Continues on next page.

Cont.

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No special problems were experienced during drilling until 1591 m when hole suddenly packed off. However, the pipe was worked free and problems were eliminated by raising mud weight and circulate hole clean. Cores were cut from 1870 m to 1888 m. Logs were run and 9 5/8" casing run and cemented successfully.



COMPLETION INTERVAL

COMPANY STATOIL A/S Well No. 6407/6-1 Page 7 of 7

Casing Size _____ Meters _____ (Bit Size) _____ Meters _____
 " from _____ to _____ 8 1/2 " hole from 1873 m to 2895 m

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Gypsum	94	40 kg	10.82	1,017.08
Drispac Regular	59	50 lb	199.00	11,741.00
Caustic Soda	49	25 kg	22.47	1,101.03
Barite	40.5	MT	151.20	6,123.60
Bentonite	38	MT	403.60	15,336.80
Drispac Superlo	35	50 lb	208.00	7,280.00
Unical	26	25 kg	22.60	587.60
Soda Ash	7	50 kg	22.79	159.53
Bicarbonate	3	50 kg	26.57	79.71
Nutplug Fine	3	25 kg	21.53	64.59
LD-8	1	5 gal	179.60	179.60

Material Cost for Interval \$ 43,670.54 Average Cost per meter \$ 42.73

Number of Days 10 Average Cost per Day \$ 4,367.05

Comments

For this section new gyp-ligno mud was mixed at 1.10 s.g.
 The hole was drilled to 2895 m with this system keeping API fluid loss below 10 cc. Problems were limited to intermitant blinding of screens when drilling in sand.
 Logs were run prior to plug and abandon program.

D R I L L I N G M U D R E C A P

OPERATOR: STATOIL BERGEN	WELL NO.: 6407/6-1	RIG NAME: ZAPATA UGLAND
SPUD DATE: 17-Sep-1984	No.drlg days to TD: 37	TOTAL DEPTH: 2895 m
CONTRACTOR: ZAPATA UGLAND DRLG	WAREHOUSE: KRISTIANSUND N	TOTAL COST: \$ 188,899.06

Date	Depth	Time	W.T.	FV API @	PV cp @	YP API @	GELS O/10	pH	API FL	Cake	ALKALINITY Pm Pf/Mf		Cl- mg/l	Ca- mg/l	Sand %	Solids %	Dil %	Water %	MBT	EX.GYP
17-Sep	257	0030	1.04	100																
18-Sep	316	0030	1.04	100																
19-Sep	316	0030	1.04	65																
20-Sep	316	0030	1.04	65																
21-Sep	337	0030	1.08	49																
22-Sep	460	0030	1.09	48																
23-Sep	460	0030	1.30	82																
24-Sep	456	0030	1.07																	
25-Sep	456	0030	1.09	42																
26-Sep	565	2400	1.12	60	21	14	3/19	10.8	13.0	1	0.8 0.1/0.4	6200	1080	1/2	6	0	94		2.3	
27-Sep	955	2400	1.14	55	13	17	11/34	9.5	17.6	1	0.2 0.1/0.2	3900	1420	1/4	6	0	94	18.0	3.6	
28-Sep	1238	2400	1.20	49	13	17	11/36	9.5	16.5	1	0.3 0.1/1.3	4900	1100	1/4	6	0	94	19.0	2.0	
29-Sep	1347	2400	1.28	64	17	19	12/40	9.5	18.0	1	0.2 0.1/0.2	4600	1000	1/4	8	0	92	16.0	2.6	
30-Sep	1349	2400	1.28	65	19	20	11/39	10.1	17.5	1	0.3 0.1/0.3	4800	1100	1/4	8	0	92	18.0	3.2	
01-Oct	1349	2200	1.28	80	28	29	25/49	10.7	24.0	2	1.4 0.2/0.3	4800	1200	1/4	10	0	90	20.0	3.1	
02-Oct	1349	2200	1.28	53	18	21	16/39	10.1	18.0	1	0.7 0.1/0.4	4600	1050	1/4	8	0	92	17.0	3.1	
03-Oct	1352	2400	1.28	50	23	21	16/34	11.0	24.0	2	1.8 0.15/0.4	4800	1420	1/4	12	0	88	18.0	3.0	
04-Oct	1600	2400	1.43	65	28	16	12/40	10.3	11.5	1	1.0 0.1/0.55	7200	1200	1/4	15	0	85	16.0	2.1	
05-Oct	1800	2400	1.43	65	25	24	9/43	9.8	12.5	1	1.2 0.4/1.0	11000	2000	1/4	14	0	86	28.0	3.9	
06-Oct	1870	2400	1.43	50	27	13	5/38	10.3	11.4	1	0.9 0.17/0.9	12000	1840	1/4	14	0	86	30.0	2.6	
07-Oct	1877	2400	1.43	63	27	18	9/40	10.1	8.2	1	0.8 0.15/0.9	12500	1840	1/2	15	0	85	30.0		
08-Oct	1887	2400	1.43	60	20	17	8/39	9.5	8.0	1	0.8 0.15/0.9	20000	2400	1/4	15	0	85	30.0	4	
09-Oct	1888	2400	1.43	60	22	15	5/35	10.5	7.4	1	1.1 0.1/1.0	14000	2200		15	0	85	25.0	2.8	
10-Oct	1888	2400	1.43	58	21	14	5/35	10.5	7.4	1	1.1 0.1/1.0	14000	2200		15	0	85	25.0	2.8	
11-Oct	1888	2400	1.43	50	19	10	4/29	10.3	7.8	1	1.0 .13/1.3	15000	2240		14	0	86	22.5	3.1	

DRILLING MUD RECAP

OPERATOR: STATOIL BERGEN WELL NO.: 6407/6-1 RIG NAME: ZAPATA UGLAND
 SPUD DATE: 17-Sep-1984 No.drlg days to TD: 37 TOTAL DEPTH: 2895 m
 CONTRACTOR: ZAPATA UGLAND DRLG WAREHOUSE: KRISTIANSUND N TOTAL COST: \$ 188,889.06

Date	Depth	Time	W.T.	FV API @	FV cp @	YP API @	GELS O/10	pH	API FL	Cake	ALKALINITY Pm	Cl- mg/l	Ca- mg/l	Sand %	Solids %	Dil %	Water %	MBT	EX.GYP
12-Oct	1888	2400	1.43	50	19	10	4/29	10.3	7.8	1	1.0 0.13/1.3	15000	2240		14	0	86	22.5	3.1
13-Oct	1873	2400	1.10	47	11	10	2/12	10.2	15.0	1	0.7 0.1/0.9	1300	1900		8	0	92	14.5	2.4
14-Oct	2005	2400	1.10	51	19	45	3/16	10.7	8.4	1	0.3/0.6	4000	1540		8	0	92	14.0	4.2
15-Oct	2273	2400	1.10	43	19	9	2/8	9.3	6.7	1	0.2 0.7/0.3	10000	1560		5	0	95	15.0	3.2
16-Oct	2464	2400	1.10	45	21	12	3/9	9.3	7.5	1	0.3 0.1/0.4	11000	1280		5	0	95	12.5	1.8
17-Oct	2700	2400	1.10	42	17	10	2/8	9.0	7.3	1	0.1 0/0.2	14000	1320		6	0	94	10.0	1.9
18-Oct	2868	2400	1.10	43	18	13	3/10	10.8	8.1	1	0.1 0.1/0.2	14000	1320		5	0	95	10.0	1.9
19-Oct	2895	2400	1.11	42	18	12	2/9	9.9	7.6	1	0.2 0.05/0.2	14000	1300		5	0	95	10.0	1.3
20-Oct	2895	2400	1.11	41	18	10	2/9	9.8	7.5	1	0.2 0.05/0.2	14000	1300		5	0	95	10.0	1.3
21-Oct	2895	2400	1.11	41	18	10	2/9	9.8	7.5	1	0.2 0.05/0.2	14000	1300		5	0	95	10.0	1.3
22-Oct	2895	2400	1.12	41	16	10	2/10	9.6	8.6	1	0.6 0.1/0.4	1490	1820		5	0	95	8.0	
23-Oct	2895	2400	1.12	43	17	12	2/10	9.7	9.2	1	0.5 0.1/0.5	1490	1600		5	0	95	8.0	
24-Oct	550	2400	1.12	45	17	12	2/12	9.7	9.2	1	0.5 0.1/0.5	1490	1600		5	0	95	8.0	