SECTION 3.2.1.

MATERIAL CONSUMPTION AND COST ANALYSIS

WELL NO. 7/12 - 5

MATERIAL CONSUMPTION & COST ANALYSIS

36" HOLE DRILLED TO 188 Meters 30" CASING SET AT 182 Meters

ACTUAL AMOUNT OF HOLE DRILLED 89.4 Meters DAYS ON INTERVAL 5

DRILLING FLUID SYSTEM Spud Mud - Prehydrated Bentonite + Seawater

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST
Bentonite Bulk	MT	13.5	39	+25.5	10728.12
sx	50 kg		75	+75	952.50
Caustic Soda	25 kg	18	25	+ 7	286.25
Lime	25 kg		7	+ 7	28.00
Soda Ash	50 kg	3	3	-	48.30
Barite sx	50 kg		8	+ 8	902.72
Mica (F)	25 kg		2	+ 2	26.00

COST/DAY $2594.38 TOTAL COST FOR INTERVAL $12971.89

COST/Mt. $145.10 PROG. COST FOR INTERVAL $3651.60

ENGR. COST COST VARIANCE FOR INTERVAL +$9320.29

OPERATOR B.P. Norway

Table 2

WELL NO. 7/12 - 5

MATERIAL CONSUMPTION & COST ANALYSIS

26" HOLE DRILLED TO 467 Meters 20" CASING SET AT 457 Meters

ACTUAL AMOUNT OF HOLE DRILLED 285 Meters DAYS ON INTERVAL 6

DRILLING FLUID SYSTEM Prehydrated Bentonite/Seawater

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST
Bentonite Bulk	MT	24	42	+ 18	11553.36
sx	50 kg	-	15	+ 15	190.50
Caustic Soda	25 kg	32	19	- 13	217.55
LF 5	25 kg	57	70	+ 13	2801.40
Soda Ash	50 kg	5	7	+ 2	112.70
Barite *	MT	-	72	+ 72	8124.48
Mica (F)	25 kg	-	2	+ 2	26.00
* Programme did not make provision for weighted mud.					

COST/DAY $3837.66 TOTAL COST FOR INTERVAL $23025.99

COST/Mt. $ 80.79 PROG. COST FOR INTERVAL $ 8965.40

ENGR. COST COST VARIANCE FOR INTERVAL +$14060.59

WELL NO. 7/12 - 5

MATERIAL CONSUMPTION & COST ANALYSIS

17½" HOLE DRILLED TO 1607 Meters 13⅜" CASING SET AT 1658 Meters

ACTUAL AMOUNT OF HOLE DRILLED 1213 Meters DAYS ON INTERVAL 9

DRILLING FLUID SYSTEM Gyp/Ligno

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST
Barite	MT	248	301	+ 53	33964.84
Bentonite	MT	12	26	+ 14	7152.08
Caustic Soda	25 kg	92	157	+ 53	1797.65
Soda Ash	50 kg	-	3	+ 3	48.30
Lignosulphonate	25 kg	400	292	-108	4216.48
Gypsum	50 kg	202	23	+ 29	2104.41
CMC LV	25 kg	184	147	- 38	7167.72
Staflo	25 kg	-	33	+ 33	4290.00
AL. Stearate	25 kg	-	1	+ 1	35.00
Drilling Detergent	200 litre	-	4	+ 4	1085.60

COST/DAY $6873.56 TOTAL COST FOR INTERVAL $61862.08

COST/Mt. $ 51.00 PROG. COST FOR INTERVAL $54309.20

ENGR. COST COST VARIANCE FOR INTERVAL +$ 7552.88

OPERATOR B.P. Norway

WELL NO. 7/12 - 5

Table 2

MATERIAL CONSUMPTION & COST ANALYSIS

12¼" HOLE DRILLED TO 3741 Meters | 9⅝" CASING SET AT 3732 Meters

ACTUAL AMOUNT OF HOLE DRILLED 2083 Meters | DAYS ON INTERVAL 44

DRILLING FLUID SYSTEM Gyp Ligno

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST
Barite Bulk	MT	250	930	+ 680	104941.20
Barite sx	50 kg	0	192	+ 192	988.80
Bentonite sx	50 kg	240	125	- 115	1587.50
Caustic Soda	25 kg	65	519	+ 454	5942.55
Ligno	25 kg	260	853	+ 593	12317.32
CMC LV	25 kg	130	278	+ 148	13555.28
Gypsum	50 kg	130	254	+ 124	2313.94
Staflo	25 kg	107	34	- 73	4420.00
AL. Stearate	25 kg	-	7	+ 7	245.00
Drilling Detergent	200 litre	25	12	- 13	3256.80
Soda Ash	50 kg	-	1	+ 1	16.10

COST/DAY $3399.64

TOTAL COST FOR INTERVAL $149584.49

COST/Mt. $ 71.81

PROG. COST FOR INTERVAL $ 69846.25

ENGR. COST

COST VARIANCE FOR INTERVAL +$79738.24

OPERATOR B.P. Norway

Table 2

WELL NO. 7/12 - 5

MATERIAL CONSUMPTION & COST ANALYSIS

8½" HOLE DRILLED TO 4440 Meters | 7" Liner CASING SET AT 3970 Meters

ACTUAL AMOUNT OF HOLE DRILLED 699 Meters | DAYS ON INTERVAL 55

DRILLING FLUID SYSTEM Gel/Ligno

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST
Barite (Bulk)	MT	50	305	+ 255	34,416.20
Bentonite sx	50 kg	50	21	- 29	266.70
Caustic Soda	25 kg	15	157	+ 142	1797.65
Soda Ash	50 kg		60	+ 60	966.00
CMC Lo Vis.	25 kg		91	+ 91	4437.16
Staflo	25 kg		58	+ 58	7540.00
Ligno	25 kg	250	313	+ 63	4519.72
Lignite	25 kg	85	149	+ 64	3126.02

COST/DAY $1037.63 | TOTAL COST FOR INTERVAL $57,069.45

COST/Mt. $ 81.64 | PROG. COST FOR INTERVAL $14,324.75

ENGR. COST | COST VARIANCE FOR INTERVAL +$42,744.70

OPERATOR B.P. Norway

WELL NO. 7/12 - 5

Table 2

TOTAL CONSUMPTION & COST ANALYSIS

TOTAL DEPTH 4440 Meters

TOTAL HOLE DRILLED 4370 Meters

TOTAL DAYS 119

MATERIAL	UNIT SIZE	PROG.	USED	VARIANCE ±	COST $
Barite (Bulk)	M.T.	548	1608	+ 1060	181,446.72
Barite (sx)	50 kg	0	202	+ 202	1,040.30
Bentonite (Bulk)	M.T.	49.5	107	+ 57.5	29,433.56
Bentonite (sx)	50 kg	290	146	- 144	1,854.20
Caustic Soda	25 kg	222	877	+ 655	10,041.65
Soda Ash	50 kg	8	74	+ 66	1,191.40
Lime	25 kg	0	7	+ 7	28.00
Gypsum	50 kg	332	485	+ 153	4,418.35
LF - 5	25 kg	57	70	+ 13	2,801.40
CMC (Lo vis)	25 kg	314	425	+ 111	20,723.00
Staflo	25 kg	107	125	+ 18	16,250.00
Ligno	25 kg	910	1458	+ 548	21,053.52
Lignite	25 kg	85	149	+ 64	3,126.02
Drilling Detergent	200 litre	25	16	- 9	4,342.40
Al Stearate	25 kg	0	8	+ 8	280.00
Mica	25 kg	0	4	+ 4	52.00

COST/DAY $ 2558.94

TOTAL COST FOR INTERVAL $ 304,513.90

COST/Mt. $ 69,68

PROG. COST FOR INTERVAL $ 151,097.20

ENGR. COST

COST VARIANCE FOR INTERVAL $ + 153,416.70

Table 2

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Offshore

Drilling Fluid & Material Consumption Report

Seawater-Gel/Gyp-Ligno

WELL NAME 7/12 - 5 AREA Norway

OPERATOR B.P. Norway RIG. Borgsten Dolphin

MUD SYSTEM Spud Mud ENGINEERS M. Alison/D. Geddes

Day No	DATE 1981	ESTIMATED DAILY MUD VOLUMES			BULK MATERIALS			SACK MATERIALS	MATERIALS ADDED TO CONTROL PROPERTIES																		
									THINNERS			POLYMERS					OTHERS										
		m³ LOSSES SUB SURFACE	m³ LOSSES SURFACE	m³ VOLUME MUD BUILT	MT BARITE	MT BENTONITE	WYOMING BENTONITE	LIGNO				STAFIO					CAUSTIC	LIME	SODA ASH	MICA	LF-5 STARCH	CMC LV	GYP	D.D.			
1	5/2			54			75										2										
2	6/2		111	95		24											15	5	1								
3	7/2		8	68		7											3	2									
4	8/2				NONE USED																						
5	9/2					8		8									5		2	2							
6	10/2					8											6		2		46						
7	11/2		8	88		3											6		2		24						
8	12/2	151	206	222	58	13	15										5		2								
9	13/2	48		98	14	18											2		1	2							
0	14/2	151	191	159	25							7					14										
1	15/2					5						11															
2	16/2			193	20				100			2											100				
3	17/2					6						13					13		1			58	34				
4	18/2		40	60	16	3			20								22		↓				14	4			
FORWARD		-	-	-	-	-	-		-			-					-	-	-	-	-	-	-	-			
ESTIMATED TOTALS		350	564	1037	133	95	90	8	120			33					93	7	12	4	70	58	148	4			

REMARKS

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Offshore

Drilling Fluid & Material Consumption Report

WELL NAME 7/12 - 5 AREA Norway
OPERATOR B.P. Norway RIG. Borgsten Dolphin
MUD SYSTEM Gyp/Ligno ENGINEERS D. Geddes/C. Meyjes

Day No.	DATE 1981	ESTIMATED DAILY MUD VOLUMES			BULK MATERIALS			SACK MATERIALS	MATERIALS ADDED TO CONTROL PROPERTIES																		
									THINNERS			POLYMERS					OTHERS										
		M³ LOSSES SUB SURFACE	M³ LOSSES SURFACE	M³ VOLUME MUD BUILT	M.T. BARITE	M.T. BENTONITE	BENTONITE	BARITE	LIGNO				STAFIO					CAUSTIC	LIME	SODA ASH	MICA	LF-5	CMC LV	GYP	D.D	AL STEARATE	
15	19/2		47	68	12	3			30									20					14	23			
16	20/2		26	34	25	9			42									16		1			6	21			
17	21/2		60	100	61				56									33					58	28		1	
18	22/2		47	5	116				40									37					11	11			
19	23/2		-	-	26				4									2									
20	24/2		-		---------- NONE USED ----------																						
21	25/2		48																								
22	26/2		13	61	76 *				130				6					24					30	100		1	
23	27/2			14	29 *		5		43									6					7				
24	28/2		13	12					10														3				
25	1/3		32		---------- NONE USED ----------																						
26	2/3		10	25	27				60														14		3		
27	3/3		17	28														26						40	2		
28	4/3		30	37	76				13									20		•			7				
FORWARD		350	564	1037	133	95	90	8	120	-	-	-	33	-	-	-	-	93	7	12	4	70	58	148	4	-	
ESTIMATED TOTALS		350	907	1421	581	107	95	8	548				39					277	7	13	4	70	208	371	9	2	

REMARKS: * Barite Consumption From Bulk Tank Measurements Actual Consumption ± 40 MT For 26/2 & 27/2 Combined.

ANCHOR DRILLING FLUIDS AS

OSLO — STAVANGER

Offshore

Drilling Fluid & Material Consumption Report

WELL NAME 7/12 - 5 AREA Norway

OPERATOR B.P. Norway RIG. Borgsten Dolphin

MUD SYSTEM Gyp/Ligno ENGINEERS C. Meyjes/D. Geddes

Day No	DATE 1981	ESTIMATED DAILY MUD VOLUMES			BULK MATERIALS			SACK MATERIALS	MATERIALS ADDED TO CONTROL PROPERTIES																		
									THINNERS			POLYMERS					OTHERS										
		m³ LOSSES SUB SURFACE	m³ LOSSES SURFACE	m³ VOLUME MUD BUILT	BARITE	BENTONITE	Bentonite	Barite	Lignosulfonate			Starch	Cmc LV	LF-S			Caustic	Lime	Soda Ash	Sipcum		Mica	Drg. Lgt	Al Stearate		
29	5/3		21	87	56				22					12				15			3						
30	6/3				32				38									13			19						
31	7/3						5							2				2			3						
32	8/3		7	1	14				8									4			8						
33	9/3		24	16					20									15									
34	10/3		29	44	26				32					22				17									
35	11/3		35	29	67				33				12	6				22			22						
36	12/3		9	95	96				32				12	25				26			27						
37	13/3		20	17	9				19					13				23			10						
38	14/3		19	40	15				25				4	6				16			3						
39	15/3		6				6		5									2									
40	16/3		7	30	13				13					6				12					4				
41	17/3			6	13				4									2									
42	18/3		-	-	-				17									6		•							
FORWARD		350	907	1421	581	107	95	8	548				39	208	70			227	7	13	371		4	9	2		
ESTIMATED TOTALS		350	1084	1786	922	112	101	8	816				67	300	70			452	7	13	466		4	13	2		

REMARKS

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Drilling Fluid & Material Consumption Report

WELL NAME 7/12 - 5 AREA Offshore Norway
OPERATOR B.P. Norway RIG. Borgsten Dolphin
MUD SYSTEM Gyp/Ligno ENGINEERS C. Meyjes/D. Geddes

Day No.	DATE 1981	ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE m³	LOSSES SURFACE m³	VOLUME MUD BUILT m³	BULK MATERIALS: BARITE MT	BENTONITE MT	SACK MATERIALS: BENTONITE	BARITE	MATERIALS ADDED TO CONTROL PROPERTIES — THINNERS: LIGNO			POLYMERS: STARCH	CMC LV	CMC LF-S			OTHERS: CAUSTIC		SODA ASH							
43	19/3																10									
44	20/3		14	20	6				8								21									
45	21/3				12								6													
46	22/3		10	30	34				3				9										2			
47	23/3		23	34	25				20				23				28									
48	24/3		25	-	29												2									
49	25/3		13	16	6				6				2				15									
50	26/3		3		3				24				8				15									
51	27/3		3	11													10									
52	28/3		22	21	25				30				15				20						1			
53	29/3		16	22	25				25				10				15									
54	30/3	NONE USED																								
55	31/3		57	28	14				30								20									
56	1/4		17	9	10				40				14				20									
FORWARD		350	1084	1786	922	112	101	8	816				67	300	70		452	7	13	466		4	13	2		
ESTIMATED TOTALS		350	1287	1977	1111	112	101	8	1002				67	387	70		528	7	13	466		4	16	2		

REMARKS.

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Drilling Fluid & Material Consumption Report

WELL NAME 7/12 -5 AREA Offshore Norway

OPERATOR B.P. Norway RIG. Borgsten Dolphin

MUD SYSTEM Gel (Lignosulphonate) ENGINEERS C. Meyjes/D. Geddes

Day No.	DATE 1981	ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE m³	LOSSES SURFACE m³	VOLUME MUD BUILT m³	BULK MATERIALS: BARITE MT	BENTONITE MT	SACK MATERIALS: BENTONITE	BARITE	MATERIALS ADDED TO CONTROL PROPERTIES — THINNERS: LIGNO			POLYMERS: STARCH	CMC LV	CMC HV	XC		OTHERS: CAUSTIC	LIME	SODA ASH	LIGNITE		MICA	BARACARB 150	BARACARB 5
57	2/4			6	20												5							
58	3/4			31	30				30				11				25							2
59	4/4		64	49	8		50	15									18		1					2
60	5/4		28	50	27		25	177	60				10				20			19*				2
61	6/4		18	5	29		30		18				10											
62	7/4		16	20	61				35				7				20						3	
63	8/4	NONE USED																						
64	9/4				17				7															
65	10/4	NONE USED																						
66	11/4	NONE USED																						
67	12/4	NONE USED																						
68	13/4											2												
69	14/4						14					2					2							
70	15/4	NONE USED																						
FORWARD		350	1287	1977	1111	112	101	8	1002			67	387	70			528	7	13	466		4	16	2
ESTIMATED TOTALS			1413	2138	1303	112	220	200	1152			71	425	70			618	7	14	485	•	4	19	8

REMARKS * USED PREVIOUSLY BUT NOT CHARGED

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Drilling Fluid & Material Consumption Report

WELL NAME 7/12 - 5 AREA Offshore Norway

OPERATOR B.P. Norway RIG. Borgsten Dolphin

MUD SYSTEM Gel/Lignosulphonate ENGINEERS C. Meyjes/D. Geddes

Day No.	DATE 1981	ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE m³	LOSSES SURFACE m³	VOLUME MUD BUILT m³	BULK MATERIALS: BARITE m.t.	BENTONITE m.t.	SACK MATERIALS: BENTONITE	BARITE	THINNERS: LIGNO	CHROME LIGNITE		POLYMERS: CMC	CMC LV	IPS			OTHERS: CAUSTIC	LIME	SODA ASH	SAPP		MICA	BAR DET.	AL. STEARATE		
71	16/4										NONE USED														
72	17/4						7										1								
73	18/4										NONE USED														
74	19/4				50							4													
75	20/4										NONE USED														
76	21/4										NONE USED														
77	22/4										NONE USED														
78	23/4										NONE USED														
79	24/4			40	15		80		25			4	15				25		1						
80	25/4			13	35		45		11	5		3					2								
81	26/4		5	3	9				13	7			7				8								
82	27/4			3	6				17	8		5	3				2								
83	28/4			4	8																				
84	29/4				6				6				4				4								
FORWARD		350	1413	2138	1303	112	220	200	1152			71	425	70			618	7	14	485		4	19	8		
ESTIMATED TOTALS		350	1418	2201	1432	112	352	200	1224	20		87	454	70			660	7	15	485		4	19	8		

REMARKS

ANCHOR DRILLING FLUIDS A/S
OSLO — STAVANGER

WELL NAME 7/12 - 5 AREA Offshore Norway
OPERATOR B.P. Norway RIG. Borgsten Dolphin
ENGINEERS Jim Hepburn - Chris Atkinson

Drilling Fluid & Material Consumption Report

MUD SYSTEM Gel/Lignosulphonate

Day	DATE 1981	ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE	LOSSES SURFACE	VOLUME MUD BUILT	BULK MATERIALS: BARITE	BENTONITE	SACK MATERIALS		MATERIALS ADDED TO CONTROL PROPERTIES — THINNERS			POLYMERS				OTHERS									
35	30/4		17		3			22					6			11									
36	1/5															4									
37	2/5							8					12			4									
38	3/5				14			2				2	4			1									
39	4/5		5		8			7					17			14									
40	5/5		6		2			7				1	7			5									
41	6/5	NONE USED																							
42	7/5		1		3			14	10				10			12									
43	8/5	NONE USED																							
44	9/5		4		3			6					6			3									
45	10/5		7		2																				
46	11/5	NONE USED																							
47	12/5	NONE USED																							
48	13/5						9									8									
FORWARD		350	1418	2201	1432	112	352	200	1224	20			87	454	70			660	7	15	485		4	19	8		
ESTIMATED TOTALS		350	1458	2201	1467	121	352	200	1290	30			90	516	70			714	7	15	485		4	19	8		

REMARKS:

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Drilling Fluid & Material Consumption Report

MUD SYSTEM Gel/Ligno

WELL NAME 7/12 - 5 AREA Offshore Norway
OPERATOR B.P. Norway RIG. Borgsten Dolphin
ENGINEERS Jim Hepburn - Chris Atkinson

Day No	DATE 1981	ESTIMATED DAILY MUD VOLUMES: LOSSES SUB SURFACE (m³)	LOSSES SURFACE (m³)	VOLUME MUD BUILT (m³)	BULK MATERIALS: BARITE (MT)	BENTONITE (MT)	[illegible] (MT)	SACK MATERIALS [illegible] (SACKS)	THINNERS: [illegible]	[illegible]	[illegible]	POLYMERS: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	OTHERS: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
99	14/5								5	5							6									
100	15/5				5				6	5							5		5							
101	16/5				9				10	20							4									
102	17/5				2																					
103	18/5			14	61				154	89			7				16		5							
104	19/5											NONE USED														
105	20/5			30	10														28							
106	21/5											NONE USED														
107	22/5			8																						
108	23/5											NONE USED														
109	24/5											NONE USED														
110	25/5				16								9				19		20							
11	26/5		28																							
12	27/5		7		10																					
FORWARD		350	1458	2201	1467	121	352	200	1290	30			90	516	70			714	7	15	485		4	19	8		
ESTIMATED TOTALS		350	1493	2253	1580	121	352	200	1465	149			106	516	70			764	7	73	485		4	19	8		

REMARKS

ANCHOR DRILLING FLUIDS AS
OSLO — STAVANGER

Drilling Fluid & Material Consumption Report

WELL NAME 7/12 - 5 AREA Offshore Norway
OPERATOR B.P. Norway RIG. Borgsten Dolphin
MUD SYSTEM Gel/Ligno ENGINEERS Chris Atknison

Day No.	DATE 1981	ESTIMATED DAILY MUD VOLUMES			BULK MATERIALS		SACK MATERIALS		MATERIALS ADDED TO CONTROL PROPERTIES																					
									THINNERS				POLYMERS					OTHERS												
		m³ LOSSES SUB SURFACE	m³ LOSSES SURFACE	m³ VOLUME MUD BUILT	MT BARITE	MT BENTONITE	BENTONITE	BARITE	LIGNO	CHROME LIGNITE			STAFLO	CMC LV	LF-5			CAUSTIC	LIME	SODA ASH	GYPSUM		MICA	DRILLING DET.	AL STEARATE					
13	28/5		6		4								5																	
14	29/5		16		12								2																	
15	30/5				8																									
16	31/5		5		4		12						5					1												
17	1/6		6		5								2																	
18	2/6				8								5																	
19	3/6				2																									
20	4/6	Cmt. 91																												
FORWARD		350	1493	2253	1580	121	352	200	1465	149			106	516	70			764	7	73	485		4	19	8					
ESTIMATED TOTALS		441	1526	2253	1623	121	364	200	1465	149			125	516	70			765	7	73	485		4	19	8					

REMARKS: