DAILY MUD PROPERTIES : RHEOLOGY PARAMETERS FOR WELL 34/8-7

Hole section: WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
20-mar-1992	0	0	SPUD MUD	60.0	1.08		48	35	27	16			10	5		13.0	11.0	7.0	11.0
21-mar-1992	445	445	SPUD MUD	100.0	1.20	10.0	55	44	32	24			19	12		11.0	17.0	10.0	16.0

Hole section: 36" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
22-mar-1992	506	506	SPUD MUD	100.0	1.08		117	90							50.0	27.0	31.0		

Hole section: 24" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
23-mar-1992	1065	1065	SPUD MUD	100.0	1.08		117	92								25.0	33.0		
24-mar-1992	1441	1440	SPUD MUD	100.0	1.08		115	89								26.0	31.0		
25-mar-1992	1441	1440	SPUD MUD	100.0	1.20		69	54	48	44			38	38		11.0	21.0		
26-mar-1992	1441	1440	SPUD MUD	100.0	1.20		66	55	48	44			38	30		11.0	21.0		
27-mar-1992	1441	1440	SPUD MUD	100.0	1.20		75	59	54	47			37	36		16.0	21.0	21.0	42.0
28-mar-1992	1441	1440	SPUD MUD	100.0	1.20		75	59	54	47			37	36		16.0	21.0	21.0	42.0

Hole section: 17 1/2" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
30-mar-1992	1750	1749	KCL BRINE	90.0	1.40	8.0	69	46	34	21			2	1	50.0	23.0	11.0	2.0	2.0
31-mar-1992	2151	2149	KCL BRINE	68.0	1.40	28.0	84	57	42	28			4	2	50.0	27.0	15.0	2.0	3.0
01-apr-1992	2349	2347	KCL BRINE	62.0	1.40	30.0	78	52	39	24			3	2	50.0	26.0	13.0	2.0	3.0
02-apr-1992	2483	2480	KCL BRINE	66.0	1.40	29.0	76	51	38	24			3	2	50.0	25.0	13.0	2.0	3.0
03-apr-1992	2553	2550	KCL BRINE	64.0	1.40	26.0	76	50	37	23			3	2	50.0	26.0	12.0	2.0	3.0
04-apr-1992	2556	2553	KCL BRINE	58.0	1.40	31.0	74	49	36	23			3	2	50.0	25.0	12.0	2.0	3.0
05-apr-1992	2664	2661	KCL BRINE	61.0	1.40	36.0	79	53	40	26			4	2	50.0	26.0	14.0	2.0	4.0
06-apr-1992	2766	2763	KCL BRINE	60.0	1.40	36.0	80	53	39	25			3	2	50.0	27.0	13.0	2.0	4.0
07-apr-1992	2792	2789	KCL BRINE	63.0	1.40		79	52	38	24			3	2	50.0	27.0	13.0	2.0	4.0

See also the report 'DAILY MUD PROPERTIES : OTHER PARAMETERS'

Norsk Hydro

17-dec-1992

DAILY MUD PROPERTIES : RHEOLOGY PARAMETERS FOR WELL 34/8-7

Hole section: 17 1/2" — WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
08-apr-1992	2800	2797	KCL BRINE	60.0	1.40	34.0	78	51	36	23			3	2	50.0	27.0	12.0	2.0	4.0
09-apr-1992	2888	2885	KCL BRINE	63.0	1.40	34.0	80	53	37	24			3	2	50.0	27.0	13.0	2.0	4.0
10-apr-1992	2955	2952	KCL BRINE	59.0	1.40	34.0	77	50	35	22			3	2	50.0	27.0	12.0	2.0	4.0
11-apr-1992	3009	3006	KCL BRINE	63.0	1.41		74	48	33	20			3	2	50.0	26.0	11.0	2.0	4.0
12-apr-1992	3060	3057	KCL BRINE	60.0	1.40	36.0	76	49	34	22			3	2	50.0	27.0	11.0	2.0	3.0
13-apr-1992	3133	3130	KCL BRINE	61.0	1.40	30.0	76	49	33	22			3	2	50.0	27.0	11.0	2.0	3.0
14-apr-1992	3152	3149	KCL BRINE	64.0	1.40	28.0	74	47	36	20			4	2	50.0	27.0	10.0	2.0	3.0
15-apr-1992	3261	3258	KCL BRINE	61.0	1.40	31.0	72	47	36	28			5	2	50.0	25.0	11.0	2.0	3.0
16-apr-1992	3288	3285	KCL BRINE	63.0	1.40	31.0	76	48	37	25			5	3	50.0	28.0	10.0	2.0	5.0
17-apr-1992	3288	3285	KCL BRINE	66.0	1.40	12.0	80	51	40	28			6	4	50.0	29.0	11.0	2.0	4.0
18-apr-1992	3288	3285	KCL BRINE	64.0	1.40	10.0	76	48	36	25			5	3	50.0	28.0	10.0	2.0	4.0
19-apr-1992	3288	3285	KCL BRINE	62.0	1.40	10.0	76	48	35	26			6	4	50.0	28.0	10.0	2.0	4.0

Hole section: 12 1/4" — WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
20-apr-1992	3332	3329	KCL BRINE	64.0	1.40	31.0	73	48	37	23			5	3	50.0	25.0	12.0	2.0	7.0
21-apr-1992	3376	3373	KCL BRINE	68.0	1.40	25.0	75	50	39	26			5	3	50.0	25.0	12.0	2.0	9.0
22-apr-1992	3453	3450	KCL BRINE	67.0	1.40	33.0	52	35	23	15			5	3	50.0	17.0	9.0	2.0	9.0
23-apr-1992	3533	3530	KCL BRINE	61.0	1.40	44.0	57	38	27	18			5	3	50.0	19.0	9.0	2.0	12.0
24-apr-1992	3562	3559	KCL BRINE	61.0	1.40	31.0	61	39	29	18			5	3	50.0	22.0	9.0	2.0	10.0
25-apr-1992	3636	3633	KCL BRINE	64.0	1.40	34.0	57	38	30	20			5	3	50.0	19.0	10.0	2.0	10.0
26-apr-1992	3712	3709	KCL BRINE	61.0	1.40	30.0	54	36	26	17			5	3	50.0	18.0	9.0	2.0	11.0
27-apr-1992	3724	3721	KCL BRINE	60.0	1.40	34.0	53	35	27	18			5	3	50.0	18.0	9.0	2.0	11.0
28-apr-1992	3763	3760	KCL BRINE	60.0	1.40	35.0	54	36	25	16			4	3	50.0	18.0	9.0	2.0	10.0
29-apr-1992	3839	3836	KCL BRINE	62.0	1.40	38.0	60	39	30	20			5	3	5.0	21.0	9.0	2.0	12.0
30-apr-1992	3923	3920	KCL BRINE	58.0	1.40	36.0	60	40	31	20			5	3	50.0	20.0	10.0	3.0	14.0
01-may-1992	3961	3958	KCL BRINE	63.0	1.40	34.0	59	48	30	20			6	4	50.0	21.0	14.0	4.0	13.0
02-may-1992	3961	3958	KCL BRINE	58.0	1.40	25.0	51	35	24	15			5	3	50.0	16.0	9.0	2.0	8.0
03-may-1992	3961	3958	KCL BRINE	68.0	1.40	34.0	67	44	33	22			6	4	50.0	23.0	11.0	4.0	14.0
04-may-1992	3961	3958	KCL BRINE	55.0	1.40	25.0	57	36	26	16			4	3	50.0	21.0	8.0	2.0	9.0
05-may-1992	3961	3958	KCL BRINE	60.0	1.40		64	42	30	19			5	4	50.0	22.0	10.0	3.0	11.0
06-may-1992	3961	3958	KCL BRINE	61.0	1.40		64	42	30	19			5	4	50.0	22.0	10.0	3.0	11.0

See also the report 'DAILY MUD PROPERTIES : OTHER PARAMETERS'

Norsk Hydro

17-dec-1992

DAILY MUD PROPERTIES : RHEOLOGY PARAMETERS FOR WELL 34/8-7

Hole section: 12 1/4" — WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
07-may-1992	3961	3958	KCL BRINE	61.0	1.40		64	42	30	19			5	4	50.0	22.0	10.0	3.0	11.0
08-may-1992	3961	3958	KCL BRINE	61.0	1.40		64	42	30	19			5	4	50.0	22.0	10.0	3.0	11.0
09-may-1992	3961	3958	KCL BRINE	59.0	1.40	23.0	61	40	29	18			5	4	50.0	21.0	10.0	3.0	12.0
10-may-1992	4006	4003	POLYMER MU	60.0	1.40		52	39	29	15			5	4	50.0	18.0	8.0	5.0	23.0
11-may-1992	4180	4177	POLYMER MU	55.0	1.40	29.0	58	37	27	17			4	3	50.0	21.0	8.0	3.0	12.0
12-may-1992	4337	4333	POLYMER MU	56.0	1.50	29.0	67	42	33	22			6	5	50.0	25.0	9.0	3.0	14.0
13-may-1992	4446	4442	POLYMER MU	52.0	1.50	37.0	62	40	32	21			6	5	50.0	22.0	9.0	3.0	16.0
14-may-1992	4446	4442	HIGH TEMPE	53.0	1.50		67	40	32	21			6	5	50.0	22.0	9.0	3.0	16.0
15-may-1992	4471	4467	POLYMER MU	56.0	1.63		68	43	35	24			9	8	50.0	25.0	9.0	5.0	19.0
16-may-1992	4474	4470	POLYMER MU	57.0	1.63	25.0	70	44	34	23			7	6	50.0	26.0	9.0	4.0	18.0
17-may-1992	4492	4488	POLYMER MU	50.0	1.63		69	43	33	23			7	6	50.0	26.0	9.0	4.0	14.0
18-may-1992	4518	4514	POLYMER MU	49.0	1.66	40.0	64	40	33	23			9	7	50.0	24.0	8.0	4.0	16.0
19-may-1992	4568	4563	POLYMER MU	50.0	1.70	51.0	72	50	41	33			19	18	60.0	22.0	14.0	11.0	22.0
20-may-1992	4580	4575	POLYMER MU	49.0	1.76	48.0	72	44	33	22			6	5	60.0	28.0	8.0	3.0	14.0
21-may-1992	4589	4584	POLYMER MU	48.0	1.76	53.0	67	41	31	20			8	7	60.0	26.0	8.0	3.0	14.0
22-may-1992	4589	4584	POLYMER MU	48.0	1.76	27.0	64	39	29	19			6	5	60.0	25.0	7.0	3.0	13.0
23-may-1992	4605	4600	POLYMER MU	47.0	1.82	53.0	61	39	30	21			11	9	60.0	22.0	9.0	5.0	16.0
24-may-1992	4648	4643	POLYMER MU	47.0	1.82	53.0	62	40	32	21			11	9	60.0	22.0	9.0	5.0	16.0
25-may-1992	4648	4643	POLYMER MU	50.0	1.82	30.0	64	41	33	22			12	10	60.0	23.0	9.0	5.0	16.0
26-may-1992	4657	4652	POLYMER MU	50.0	1.82	30.0	64	41	33	22			12	10	60.0	23.0	9.0	5.0	16.0
27-may-1992	4657	4652	POLYMER MU	50.0	1.82	30.0	64	41	33	22			12	10	60.0	23.0	9.0	5.0	16.0
28-may-1992	4725	4720	LIGNO	57.0	1.82	45.0	53	35	30	21			9	6	50.0	18.0	9.0	5.0	11.0
29-may-1992	4766	4761	LIGNO	58.0	1.82	67.0		40	34	24			11	8	50.0	25.0	10.0	6.0	20.0
30-may-1992	4769	4763	LIGNO	58.0	1.82	16.0	68	44	35	23			12	9	50.0	24.0	10.0	4.0	19.0
31-may-1992	4823	4817	LIGNO	50.0	1.82	43.0	57	39	33	23			9	6	50.0	18.0	11.0	5.0	13.0
01-jun-1992	4895	4888	LIGNO	47.0	1.82	47.0	48	32	26	18			5	3	50.0	16.0	8.0	4.0	12.0
02-jun-1992	4900	4893	LIGNO	49.0	1.82	38.0	57	39	31	26			9	6	50.0	18.0	11.0	6.0	14.0
03-jun-1992	4900	4893	LIGNO	54.0	1.82	22.0	60	41	36	28			11	7	50.0	19.0	11.0	6.0	15.0
04-jun-1992	4900	4893	LIGNO	55.0	1.82	18.0	50	35	29	22			11	8	50.0	15.0	10.0	6.0	14.0
05-jun-1992	4900	4893	LIGNO	53.0	1.82	18.0	50	36	29	22			14	7	50.0	14.0	11.0	7.0	15.0
06-jun-1992	4900	4893	LIGNO	46.0	1.82	33.0	44	23	18	12			4	2	50.0	16.0	6.0	2.0	6.0
07-jun-1992	4947	4940	LIGNO	48.0	1.82	61.0	52	36	30	23			9	6	50.0	16.0	10.0	6.0	17.0
08-jun-1992	4961	4953	LIGNO	52.0	1.82	35.0	49	32	23	18			8	5	50.0	17.0	8.0	4.0	15.0
09-jun-1992	5005	4997	HIGH TEMPE	62.0	1.82	61.0	58	39	26	21			9	7	60.0	19.0	10.0	5.0	20.0
10-jun-1992	5005	4997	HIGH TEMPE	57.0	1.82		53	37	24	18			8	7	60.0	16.0	11.0	5.0	19.0
11-jun-1992	5041	5032	HIGH TEMPE	45.0	1.82	51.0	64	40	31	21			8	6	50.0	24.0	8.0	5.0	11.0
12-jun-1992	5092	5082	HIGH TEMPE	62.0	1.82	57.0	76	50	37	28			10	8	50.0	26.0	12.0	9.0	19.0

See also the report 'DAILY MUD PROPERTIES : OTHER PARAMETERS'

Norsk Hydro

17-dec-1992

DAILY MUD PROPERTIES : RHEOLOGY PARAMETERS FOR WELL 34/8-7

Hole section: 8 1/2" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings 600	300	200	100	60	30	6	3	Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
13-jun-1992	5112	5101	HIGH TEMPE	68.0	1.82		62	42	35	24			9	7	50.0	20.0	11.0	9.0	29.0
14-jun-1992	5127	5116	HIGH TEMPE	58.0	1.82	43.0	67	45	36	26			13	13	50.0	22.0	12.0	7.0	12.0
15-jun-1992	5133	5122	HIGH TEMPE	67.0	1.82	36.0	87	59	52	40			25	25	50.0	28.0	16.0	17.0	29.0
16-jun-1992	5169	5157	HIGH TEMPE	62.0	1.82	48.0	84	57	49	36			18	17	50.0	27.0	15.0	9.0	19.0
17-jun-1992	5227	5214	HIGH TEMPE	61.0	1.82	40.0	77	52	44	34			19	17	50.0	25.0	14.0	9.0	19.0
18-jun-1992	5231	5217	HIGH TEMPE	85.0	1.82		81	53	41	30			19	17	50.0	28.0	13.0	10.0	21.0
19-jun-1992	5231	5217	HIGH TEMPE	75.0	1.82		81	53	41	30			19	17	50.0	28.0	13.0	10.0	21.0
20-jun-1992	5231	5217	HIGH TEMPE	75.0	1.82		82	54	42	31			20	18	50.0	28.0	13.0	9.0	20.0
21-jun-1992	5231	5217	HIGH TEMPE	75.0	1.82		78	51	42	30			15	14	50.0	27.0	13.0	9.0	20.0
22-jun-1992	5231	5217	HIGH TEMPE	76.0	1.82		78	51	42	30			16	14	50.0	27.0	13.0	9.0	20.0
23-jun-1992	5231	5217	HIGH TEMPE	76.0	1.82		75	43	40	28			14	12	50.0	27.0	12.0	8.0	13.0
24-jun-1992	5231	5217	HIGH TEMPE	63.0	1.82		70	46	37	26			12	11	50.0	24.0	11.0	7.0	14.0
25-jun-1992	5250	5236	HIGH TEMPE	49.0	1.82	45.0	75	47	37	26			9	8	50.0	28.0	10.0	5.0	11.0
26-jun-1992	5302	5287	HIGH TEMPE	51.0	1.82	54.0	87	57	46	31			13	12	50.0	30.0	13.0	5.0	17.0
27-jun-1992	5319	5303	HIGH TEMPE	59.0	1.82		81	53	43	30			14	13	50.0	28.0	13.0	6.0	20.0
28-jun-1992	5370	5353	HIGH TEMPE	50.0	1.82	42.0	73	47	35	23			9	7	50.0	26.0	10.0	3.0	11.0
29-jun-1992	5403	5386	HIGH TEMPE	51.0	1.82	46.0	76	49	40	28			11	10	50.0	27.0	11.0	3.0	13.0
30-jun-1992	5422	5404	HIGH TEMPE	51.0	1.82	52.0	71	45	35	24			8	7	160.0	26.0	10.0	3.0	12.0
01-jul-1992	5431	5413	HIGH TEMPE	56.0	1.82	31.0	62	40	32	21			6	5	160.0	22.0	10.0	3.0	9.0
02-jul-1992	5456	5438	HIGH TEMPE	49.0	1.82	48.0	64	41	32	21			6	5	160.0	23.0	9.0	3.0	10.0
03-jul-1992	5460	5442	HIGH TEMPE	58.0	1.82		69	45	35	25			7	6	160.0	24.0	10.0	3.0	12.0
04-jul-1992	5460	5442	HIGH TEMPE	64.0	1.82		68	44	37	26			8	7	160.0	24.0	10.0	4.0	14.0
05-jul-1992	5460	5442	HIGH TEMPE	54.0	1.82		70	45	37	26			8	7	160.0	25.0	10.0	3.0	13.0
06-jul-1992	5460	5442	POLYMER MU	56.0	1.82		70	45	37	26			8	7	160.0	3.0	1.0	3.0	13.0
07-jul-1992	5460	5442	POLYMER MU	56.0	1.82		63	40	33	23			8	7	160.0	23.0	9.0	3.0	13.0
08-jul-1992	5460	5442	HIGH TEMPE	75.0	1.82	47.0	60	40	3	2			8	7	160.0	20.0	10.0	3.0	12.0
09-jul-1992	5441	5423	HIGH TEMPE	52.0	1.85		57	36	29	20			10	9	160.0	20.0	8.0	5.0	13.0
10-jul-1992	5441	5423	HIGH TEMPE	62.0	1.85		54	36	29	20			8	7	160.0	18.0	9.0	4.0	13.0
11-jul-1992	5460	5442	HIGH TEMPE	85.0	1.85		54	36	29	20			8	7	160.0	18.0	9.0	4.0	13.0
12-jul-1992	5460	5442	BRINE		1.50											18.0	9.0		
13-jul-1992	5460	5442	BRINE		1.50											18.0	9.0		

See also the report 'DAILY MUD PROPERTIES : OTHER PARAMETERS'

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 34/8-7

Hole section: WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt.cake API [mm]	Filt.cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalinity Pm [ml]	Alcalinity Pf [ml]	Alcalinity Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
20-mar-1992	0	0	SPUD MUD	1.08				0	0/0						0	0	0			5.0		0.0	80	0.0	0
21-mar-1992	445	445	SPUD MUD	1.20				0	0/0	10.0					0	0	0			8.0		0.0	80	0.0	0

Hole section: 36" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt.cake API [mm]	Filt.cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalinity Pm [ml]	Alcalinity Pf [ml]	Alcalinity Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
22-mar-1992	506	506	SPUD MUD	1.08				0	0/0	9.1					0	0	0					0.0		0.0	0

Hole section: 24" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt.cake API [mm]	Filt.cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalinity Pm [ml]	Alcalinity Pf [ml]	Alcalinity Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
23-mar-1992	1065	1065	SPUD MUD	1.08				0	0/0	9.1					0	0	0					0.0		0.0	0
24-mar-1992	1441	1440	SPUD MUD	1.08				0	0/0	9.0					0	0	0					0.0		0.0	0
25-mar-1992	1441	1440	SPUD MUD	1.20				0	0/0	10.1					0	0	0					0.0		0.0	0
26-mar-1992	1441	1440	SPUD MUD	1.20				0	0/0	10.1					0	0	0					0.0		0.0	0
27-mar-1992	1441	1440	SPUD MUD	1.20				0	0/0	10.1					0	0	0					0.0		0.0	0
28-mar-1992	1441	1440	SPUD MUD	1.20				0	0/0	10.1					0	0	0					0.0		0.0	0

Hole section: 17 1/2" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt.cake API [mm]	Filt.cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalinity Pm [ml]	Alcalinity Pf [ml]	Alcalinity Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
30-mar-1992	1750	1749	KCL BRINE	1.40	3.7		2	0	0/0	8.4			0.4	108	57024	51000	0		800	12.0		0.0	2	0.0	0
31-mar-1992	2151	2149	KCL BRINE	1.40	3.9		1	0	0/0	8.0		0.1	0.6	100	52800	59000	620	134	840	12.0		0.0	32	0.0	0
01-apr-1992	2349	2347	KCL BRINE	1.40	3.7		1	0	0/0	8.0			0.5	111	58200	52000	640	146	880	12.0		0.0	43	0.0	0
02-apr-1992	2483	2480	KCL BRINE	1.40	3.5		1	0	0/0	8.0			0.6	112	58700	65000	600	121	800	12.0		0.0	44	0.0	0
03-apr-1992	2553	2550	KCL BRINE	1.40	3.0		1	0	0/0	8.0				111	58200	68000	640	109	820	12.0		0.0	46	0.0	0
04-apr-1992	2556	2553	KCL BRINE	1.40	3.0		1	0	0/0	8.0			0.7	115	60300	69000	640	122	840	12.0		0.0	46	0.0	0
05-apr-1992	2664	2661	KCL BRINE	1.40	3.0		1	0	0/0	8.0			0.7	116	60800	70000	600	134	820	13.0		0.0	50	0.0	0
06-apr-1992	2766	2763	KCL BRINE	1.40	3.4		1	0	0/0	8.0			0.6	115	60300	70000	600	122	800	13.0		0.0	50	0.0	0
07-apr-1992	2792	2789	KCL BRINE	1.40	3.4		1	0	0/0	8.0			0.7	114	59700	70000	600	134	820	13.0		0.0	51	0.0	0
08-apr-1992	2800	2797	KCL BRINE	1.40	3.3		1	0	0/0	8.0			0.5	114	59700	70000	620	122	820	13.0		0.0	50	0.0	0
09-apr-1992	2888	2885	KCL BRINE	1.40	3.2		1	0	0/0	8.0			0.6	115	60300	70000	600	122	800	13.0		0.0	50	0.0	0
10-apr-1992	2955	2952	KCL BRINE	1.40	3.3		1	0	0/0	7.9			0.6	113	59200	69000	640	134	860	13.0		0.0	49	0.0	0
11-apr-1992	3009	3006	KCL BRINE	1.41	3.3		1	0	0/0	8.0			0.6	116	60800	69000	620	109	800	13.0		0.0	52	0.0	0
12-apr-1992	3060	3057	KCL BRINE	1.40	2.9		1	0	0/0	8.0			0.5	117	61300	67000	600	134	820	13.0		0.0	49	0.0	0
13-apr-1992	3133	3130	KCL BRINE	1.40	2.9		1	0	0/0	8.0			0.5	118	61800	70000	600	134	820	13.0		0.0	49	0.0	0
14-apr-1992	3152	3149	KCL BRINE	1.40	2.6		1	0	0/0	8.0		0.1	0.8	121	6500	72000	520		720	13.0		0.0	50	0.0	0
15-apr-1992	3261	3258	KCL BRINE	1.40	3.0		1	0	0/0	8.0		0.2	0.9	122	6350	75000	480		800	13.0		0.0	52	0.0	0
16-apr-1992	3288	3285	KCL BRINE	1.40	3.0		1	0	0/0	8.0		0.0	0.8	121	6300	75000	420		780	13.0		0.0	50	0.0	0
17-apr-1992	3288	3285	KCL BRINE	1.40	3.2		1	0	0/0	8.0		0.1	0.8	120	6300	73000	420		800	13.0		0.0	50	0.0	0
18-apr-1992	3288	3285	KCL BRINE	1.40	3.2		1	0	0/0	8.0		0.1	0.8	120	6300	74000	420		780	13.0		0.0	50	0.0	0
19-apr-1992	3288	3285	KCL BRINE	1.40	3.0		1	0	0/0	8.0		0.1	0.8	120	6300	73000	410		760	13.0		0.0	50	0.0	0

Hole section: 12 1/4" WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt.cake API [mm]	Filt.cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalinity Pm [ml]	Alcalinity Pf [ml]	Alcalinity Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
20-apr-1992	3332	3329	KCL BRINE	1.40	4.0	14.0	1	0	500/100	10.0			1.1	120	6150	70000	640		700	13.0		0.0	48	0.0	0
21-apr-1992	3376	3373	KCL BRINE	1.40	3.5	15.0	1	0	2/2	8.8		0.1	1.0	118	6100	70000	600		680	13.0		0.0	46	0.0	0
22-apr-1992	3453	3450	KCL BRINE	1.40	3.0	13.0	1	0	500/105	8.4			1.0	110	5750	65000	340		400	15.0		0.0	40	0.0	0
23-apr-1992	3533	3530	KCL BRINE	1.40	3.0	13.0	1	0	500/105	8.5		0.2	1.0	105	5300	63000	380		500	15.0		0.0	38	0.0	0
24-apr-1992	3562	3559	KCL BRINE	1.40	3.2	14.5	1	0	500/105	8.3		0.2	0.8	100	5100	62000	340		520	14.0		0.0	38	0.0	0

See also the report 'DAILY MUD PROPERTIES : RHEOLOGY PARAMETERS'

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 34/8-7

Hole section: 12 1/4" — WATER BASED SYSTEM

Date	Depth (m) MD	Depth (m) TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt.cake API [mm]	Filt.cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalinity Pm [ml]	Alcalinity Pf [ml]	Alcalinity Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
25-apr-1992	3636	3633	KCL BRINE	1.40	3.4	14.6	1	0	500/110	8.6		0.2	0.5	95	5000	57000	240		440	14.0		0.0	38	0.0	0
26-apr-1992	3715	3709	KCL BRINE	1.40	2.6	14.0	1	0	500/110	8.7		0.2	0.8	90	49000	52000	400		440	14.0		0.0	36	0.0	0
27-apr-1992	3724	3721	KCL BRINE	1.40	2.8	14.0	1	0	500/110	8.5		0.1	0.8	90	49000	52000	380		460	14.0		0.0	36	0.0	0
28-apr-1992	3763	3760	KCL BRINE	1.40	2.8	14.0	1	0	500/110	8.4		0.1	0.9	90	49000	52000	360		440	14.0		0.0	36	0.0	0
29-apr-1992	3839	3836	KCL BRINE	1.40	3.0	16.0	1	0	500/110	8.3		0.2	1.0	80	37000	48000	280		360	16.0		0.0	36	0.0	0
30-apr-1992	3923	3920	KCL BRINE	1.40	2.6	15.6	1	0	500/110	8.4		0.2	1.2	72	33000	47000	300		320	16.0		0.0	40	0.0	0
01-may-1992	3961	3958	KCL BRINE	1.40	2.8	15.6	1	0	500/110	8.6		0.2	1.5	68	33000	47000	320		360	16.0		0.0	50	0.0	0
02-may-1992	3961	3958	KCL BRINE	1.40	2.0	14.0	1	0	500/110	8.6		0.2	1.4	65	30000	42000	240		320	16.0		0.0	48	0.0	0
03-may-1992	3961	3958	KCL BRINE	1.40	2.8	15.0	1	0	2/2	8.0		0.1	1.6	62	30000	42000	260		340	16.0		0.0	48	0.0	0
04-may-1992	3961	3958	KCL BRINE	1.40	2.4	15.0	1	0	500/110	8.0		0.1	1.6	62	30000	43000	280		320	16.0		0.0	48	0.0	0
05-may-1992	3961	3958	KCL BRINE	1.40	2.6	15.0	1	0	500/120	8.0		0.1	1.6	62	30000	43000	280		320	16.0		0.0	48	0.0	0
06-may-1992	3961	3958	KCL BRINE	1.40	2.7	15.0	1	0	500/120	8.1		0.1	1.6	62	30000	43000	280		320	15.0		0.0	50	0.0	0

Hole section: 8 1/2" — WATER BASED SYSTEM

Date	Depth (m) MD	Depth (m) TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt.cake API [mm]	Filt.cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalinity Pm [ml]	Alcalinity Pf [ml]	Alcalinity Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
07-may-1992	3961	3958	KCL BRINE	1.40	2.7	15.0	1	0	500/120	8.2		0.1	1.6	62	30000	43000	280		320	16.0		0.0	50	0.0	0
08-may-1992	3961	3958	KCL BRINE	1.40	2.7	15.0	1	0	500/120	8.2		0.1	1.6	62	30000	43000	280		320	16.0		0.0	50	0.0	0
09-may-1992	3961	3958	KCL BRINE	1.40	2.8	15.0	1	0	500/120	9.9		0.6	2.4	60	29000	42000	480		640	15.0		0.0	48	0.0	0
10-may-1992	4006	4003	POLYMER MU	1.40	2.5	14.0	1	0	500/120	9.8		0.5	2.3	44	24000	35000	360		420	16.0		0.0	34	0.0	0
11-may-1992	4180	4177	POLYMER MU	1.40	2.5	14.4	1	0	500/120	9.2		0.4	2.1	38	21000	32000	200		240	16.0		0.0	36	0.0	0
12-may-1992	4337	4333	POLYMER MU	1.50	2.2	12.6	1	0	500/120	10.3		0.8	2.6		0	27000	160		200	18.0		0.0	30	0.0	0
13-may-1992	4446	4442	POLYMER MU	1.50	2.2	10.8	1	0	500/120	10.0		0.8	2.6		0	25000	180		220	18.0		0.0	32	0.0	0
14-may-1992	4446	4442	HIGH TEMPE	1.50	2.2	10.8	1	0	500/120	10.0		0.8	2.6		0	25000	180		220	18.0		0.0	32	0.0	0
15-may-1992	4471	4467	POLYMER MU	1.63	2.5	11.0	1	0	500/120	9.7		0.7	2.8		0	24000	180		200	22.0		0.0	34	0.0	0
16-may-1992	4474	4470	POLYMER MU	1.63	2.5	11.0	1	0	500/120	9.6		0.7	2.8		0	23000	180		200	22.0		0.0	34	0.0	0
17-may-1992	4492	4488	POLYMER MU	1.63	2.4	11.0	1	0	500/120	9.8		0.8	2.8		0	23000	180		220	22.0		0.0	31	0.0	0
18-may-1992	4518	4514	POLYMER MU	1.66	2.4	11.2	1	0	500/120	10.1		0.8	2.9		0	23000	160		200	23.0		0.0	31	0.0	0
19-may-1992	4568	4563	POLYMER MU	1.70	2.8	12.0	1	0	500/140	10.1		1.0	3.0		0	22000	160		200	25.0		0.0	30	0.0	0
20-may-1992	4580	4575	POLYMER MU	1.76	2.4	11.6	1	0	500/140	10.0		1.0	3.0		0	22000	180		240	27.0		0.0	24	0.0	0
21-may-1992	4589	4584	POLYMER MU	1.76	3.0	12.2	1	0	500/140	9.9		0.9	3.0		0	20000	180		240	27.0		0.0	26	0.0	0
22-may-1992	4589	4584	POLYMER MU	1.76	3.0	12.0	1	0	500/140	9.9		0.9	3.0		0	20000	180		240	27.0		0.0	26	0.0	0
23-may-1992	4605	4600	POLYMER MU	1.82	2.8	11.6	1	0	500/140	10.0		1.1	3.1		0	18000	140		220	29.0		0.0	23	0.0	0
24-may-1992	4648	4643	POLYMER MU	1.82	2.8	11.6	1	0	500/140	10.0		1.1	3.1		0	16000	140		220	28.0		0.0	22	0.0	0
25-may-1992	4648	4643	POLYMER MU	1.82	2.8	11.6	1	0	500/140	9.9		1.0	3.1		0	16000	140		220	28.0		0.0	21	0.0	0
26-may-1992	4657	4652	POLYMER MU	1.82	2.8	11.6	1	0	500/140	9.9		1.0	3.1		0	16000	140		220	28.0		0.0	21	0.0	0
27-may-1992	4657	4652	POLYMER MU	1.82	2.8	11.6	1	0	500/140	9.9		1.0	3.1		0	16000	140		220	28.0		0.0	21	0.0	0
28-may-1992	4725	4720	LIGNO	1.82	3.4	14.0	1	0	500/170	9.9		1.2	3.8		0	11000	80		160	29.0		0.0	17	0.0	0
29-may-1992	4766	4761	LIGNO	1.82	3.4	14.6	1	0	500/170	10.4		1.5	4.5		0	11000	120		240	29.0		0.0	21	0.0	0
30-may-1992	4769	4763	LIGNO	1.82	3.4		1	0	0/0	10.5		1.5	4.4		0	11000	100		240	29.0		0.0	22	0.0	0
31-may-1992	4823	4817	LIGNO	1.82	3.0	15.4	1	0	500/170	10.1		1.0	3.7		0	10000	140		220	29.0		0.0	22	0.0	0
01-jun-1992	4895	4838	LIGNO	1.82	3.4	14.0	1	0	500/170	10.6		1.3	3.8		0	10000	260		300	30.0		0.0	22	0.0	0
02-jun-1992	4900	4893	LIGNO	1.82	3.0	15.0	1	0	500/170	9.9		0.8	3.0		0	1000	240		280	30.0		0.0	22	0.0	0
03-jun-1992	4900	4893	LIGNO	1.82	3.2	14.8	1	0	500/170	9.8		0.8	3.4		0	7000	220		260	29.0		0.0	25	0.0	0
04-jun-1992	4900	4893	LIGNO	1.82	3.0		1	0	0/0	10.0		0.9	3.3		0	7000	200		240	29.0		0.0	25	0.0	0
05-jun-1992	4900	4893	LIGNO	1.82	3.0		1	0	0/0	10.0		0.9	3.5		0	7000	150		220	29.0		0.0	25	0.0	0
06-jun-1992	4900	4893	LIGNO	1.82	3.0	14.8	1	0	500/170	10.1		0.9	3.9		0	6000	280		320	28.0		0.0	22	0.0	0
07-jun-1992	4947	4940	LIGNO	1.82	3.0	15.0	1	0	500/170	10.1		1.0	3.8		0	8000	160		200	28.0		0.0	25	0.0	0
08-jun-1992	4961	4953	LIGNO	1.82	2.0	14.5	1	0	500/170	10.3		1.3	4.0		0	7000	160		240	29.0		0.0	25	0.0	0
09-jun-1992	5005	4997	HIGH TEMPE	1.82	3.8	15.0	1	0	500/170	10.1		1.1	3.5		0	5700	240		360	29.0		0.0	25	0.0	0
10-jun-1992	5005	4997	HIGH TEMPE	1.82	3.5	15.0	1	0	500/170	9.8		1.1			0	5500	240		340	29.0		0.0	25	0.0	0
11-jun-1992	5041	5032	HIGH TEMPE	1.82	2.8	15.0	1	0	500/170	9.9		1.3	3.8		0	5600	80		180	29.0		0.0	26	0.0	0
12-jun-1992	5092	5082	HIGH TEMPE	1.82	3.6	15.0	1	0	500/170	10.1		1.3	4.8		0	53000	0		320	29.0		0.0	26	0.0	0
13-jun-1992	5112	5101	HIGH TEMPE	1.82	2.4	15.0	1	0	500/170	10.1		1.2	4.4		0	51000	0		270	29.0		0.0	24	0.0	0
14-jun-1992	5127	5116	HIGH TEMPE	1.82	8.0	18.0	2	0	500/170	10.8		1.7	4.4		0	4700	200		200	29.0		0.0	23	0.0	0
15-jun-1992	5133	5122	HIGH TEMPE	1.82	8.0	22.0	2	0	500/170	9.7		1.6	6.4		0	5800	0		180	29.0		0.0	19	0.0	0
16-jun-1992	5169	5157	HIGH TEMPE	1.82	7.0	19.0	1	0	500/170	10.4		1.4	2.1		0	4800	0		200	29.0		0.0	20	0.0	0

See also the report 'DAILY MUD PROPERTIES : RHEOLOGY PARAMETERS'

Norsk Hydro

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 34/8-7

17-dec-1992

Hole section: 8 1/2"

WATER BASED SYSTEM

Date	Depth [m] MD	Depth [m] TVD	Mud Type	Dens [sg]	Filtrate API [ml]	Filtrate HPHT [ml]	Filt cake API [mm]	Filt cake HPHT [mm]	HPHT Press/Temp [psi/DegC]	pH	Alcalin ty Pm [ml]	Alcalin ty Pf [ml]	Alcalin ty Mf [ml]	Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg]	Percentage Solid [%]	Percentage Oil [%]	Percentage Sand [%]	CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
17-jun-1992	5227	5214	HIGH TEMPE	1.82	7.4	18.0	2	0	500/170	10.8		2.4	6.4		0	3500	60		110	28.0		0.0	19	0.0	0
18-jun-1992	5231	5217	HIGH TEMPE	1.82	6.0	19.0	1	0	500/170	10.4		1.9	6.6		0	3800	60		180	29.0		0.0	18	0.0	0
19-jun-1992	5231	5217	HIGH TEMPE	1.82	6.0	19.0	1	0	500/170	10.3		1.8	6.3		0	3600	100		180	29.0		0.0	18	0.0	0
20-jun-1992	5231	5217	HIGH TEMPE	1.82	6.0	19.0	1	0	600/170	10.4		1.9	6.3		0	3700	140		200	29.0		0.0	18	0.0	0
21-jun-1992	5231	5217	HIGH TEMPE	1.82	6.0	18.5	1	0	500/170	10.5		1.9	6.3		0	3800	120		180	29.0		0.0	18	0.0	0
22-jun-1992	5231	5217	HIGH TEMPE	1.82	6.1	18.5	1	0	500/170	10.4		1.9	6.3		0	3700	120		180	29.0		0.0	18	0.0	0
23-jun-1992	5231	5217	HIGH TEMPE	1.82	4.8	17.0	1	0	500/170	10.0		1.5	6.0		0	3700	140		200	29.0		0.0	18	0.0	0
24-jun-1992	5231	5217	HIGH TEMPE	1.82	6.7	17.0	1	0	500/170	9.9		1.5	6.0		0	0	140		200	29.0		0.0	18	0.0	0
25-jun-1992	5250	5236	HIGH TEMPE	1.82	5.9	19.5	1	0	500/170	10.1		1.5	5.9		0	3400	200		280	29.0		0.0	22	0.0	0
26-jun-1992	5302	5287	HIGH TEMPE	1.82	6.3	16.0	1	0	500/170	10.5		1.5	4.7		0	3400	240		320	29.0		0.0	22	0.0	0
27-jun-1992	5319	5303	HIGH TEMPE	1.82	6.7	16.0	1	0	500/170	10.1		0.9	2.6		0	3400	240		320	29.0		0.0	23	0.0	0
28-jun-1992	5370	5353	HIGH TEMPE	1.82	4.0	15.0	1	0	500/167	10.1		0.8	3.6		0	3000	240		360	29.0		0.0	21	0.0	0
29-jun-1992	5403	5386	HIGH TEMPE	1.82	4.6	17.0	1	0	500/167	10.4		1.0	4.0		0	3100	220		320	29.0		0.0	23	0.0	0
30-jun-1992	5422	5404	HIGH TEMPE	1.82	6.0	15.5	1	0	500/170	10.0		3.5			0	3100	260		400	29.0		0.0	23	0.0	0
01-jul-1992	5431	5413	HIGH TEMPE	1.82	3.8	15.0	1	0	500/170	10.1		0.4	3.6		0	3200	240		3	29.0		0.0	23	0.0	0
02-jul-1992	5456	5438	HIGH TEMPE	1.82	4.0	15.0	1	0	500/170	10.0		0.9	3.6		0	3200	260		400	29.0		0.0	23	0.0	0
03-jul-1992	5460	5442	HIGH TEMPE	1.82	4.0	15.0	1	0	500/170	10.0		0.9	3.6		0	3200	260		400	28.0		0.0	23	0.0	0
04-jul-1992	5460	5442	HIGH TEMPE	1.82	4.0	15.0	1	0	500/170	9.4		0.9	3.6		0	3200	260		400	28.0		0.0	23	0.0	0
05-jul-1992	5460	5442	HIGH TEMPE	1.82	4.0	15.0	1	0	500/167	10.0		0.9	3.5		0	3200	260		400	29.0		0.0	23	0.0	0
06-jul-1992	5460	5442	POLYMER MU	1.82	3.8	15.0	1	0	500/167	10.0		0.9	3.5		0	3200	260		400	29.0		0.0	23	0.0	0
07-jul-1992	5460	5442	POLYMER MU	1.82	4.4	16.0	1	0	500/167	10.2		0.9	3.3		0	3200	280		400	29.0		0.0	25	0.0	0
08-jul-1992	5460	5442	HIGH TEMPE	1.82	4.0	18.0	1	0	500/167	3.3		1.0	0.9		0	3200	180		420	29.0		0.0	25	0.0	0
09-jul-1992	5441	5423	HIGH TEMPE	1.85	3.9	17.0	1	0	500/167	9.8		0.6	3.1		0	2700	180		400	30.0		0.0	25	0.0	0
10-jul-1992	5441	5423	HIGH TEMPE	1.85	4.2	17.0	2	0	500/167	9.8		0.5	3.0		0	2700	200		480	30.0		0.0	25	0.0	0
11-jul-1992	5460	5442	HIGH TEMPE	1.85	4.2		2	0	0/0	9.8		0.5	3.0		0	2700	200		480	30.0		0.0	25	0.0	0
12-jul-1992	5460	5442	BRINE	1.50				0	0/0						0	0	0					0.0		0.0	0
13-jul-1992	5460	5442	BRINE	1.50				0	0/0						0	0	0					0.0		0.0	0

See also the report 'DAILY MUD PROPERTIES : RHEOLOGY PARAMETERS'

MUD CONSUMPTION WELL 34/8-7

MUD COMPANY: ANCHOR

Section Size	Product/Additive	Total Amount Used	Unit
36"	BENTONITE	34000.0	kg
	LIME	200.0	kg
	SODA ASH	150.0	kg
	XC-POLYMER	175.0	kg
24"	BARITE	187000.0	kg
	BENTONITE	144000.0	kg
	PAC-R	672.0	kg
	SODA ASH	75.0	kg
	XC-POLYMER	300.0	kg
17 1/2"	BARITE	503000.0	kg
	BENTONITE	6000.0	kg
	CAUSTIC SODA	88.0	l
	CLAYCAP	14595.0	kg
	KCL POWDER	8238.0	kg
	DEFOAMER	540.0	l
	KCL BRINE	898000.0	l
	LIME	100.0	kg
	PAC-L	15422.0	kg
	PAC-R	10534.0	kg
	PROPAC	5004.0	l
	SODA ASH	2150.0	kg
	XC-POLYMER	635.0	kg
12 1/4"	BARITE	21600.0	kg
	BENTONITE	2000.0	kg
	CAUSTIC SODA	917.0	l
	CITRIC ACID	1883.0	kg
	CLAYCAP	44.0	kg
	DEFOAMER	40.0	kg
	LIGSEAL/PROSEAL	5720.0	kg
	PAC-R	122.0	kg
	SODA ASH	725.0	kg
	SODIUM BICARBONATE	754.0	kg
	TEMPTROL/PROTEMP/ANCOTEMP	5413.0	kg
	THERMOPOL	4249.0	kg
	XC-POLYMER	401.0	kg

8 1/2"	BARITE	1898000.0	kg
	BENTONITE	7000.0	kg
	PACSEAL REG	637.0	kg
	XC POLYMER	1233.0	kg
	CITRIC ACID	1324.0	kg
	CAUSTIC SODA	13850.0	l
	LIGHTIN	14802.0	kg
	TEMPTROL	22430.0	kg
	THERMOPOL	15459.0	kg
	LIGSEAL	25941.0	kg
	SOD.BICARB.	1110.0	kg
	DEFOAMER	1500.0	l
	PACSEAL LV	2728.0	kg
	LIME	4851.0	kg
	ANCOCIDE	1525.0	l
	ZINC CARB.	125.0	kg
	KCL BRINE	9000.0	l

U4-725

3

HYDRO

Norsk Hydro a.s Bergen
E&P Research Centre

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Exploration and Production

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BA-93-40 - PETROLEUM GEOCHEMISTRY

WELL: 34/8-7.

Summary/Conclusion/Recommendation

Keywords
Petroleum Geochemistry, Maturity, Source rock evaluation, Migrated hydrocarbons.

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1. INTRODUCTION.

Vitrinite reflectance was measured by Geolab UK, Cramligton, UK, and spore colour was determined by The Robertson Group, Llandudno, UK.
Stable carbon isotope measurements of the hydrocarbon fractions was undertaken by Geolab Nor, Trondheim, Norway. All other analytical work, together with the interpretation of data and the compilation of this report were done at Norsk Hydro Research Centre, Bergen , Norway.

All depths in this report are in mRKB MD.

TABLE: 1.2

Petroleum Geochemistry Group
Research Centre Bergen
HYDRO

ANALYSIS PROGRAMME, WELL NOR:34/8-7

Depth (m)	Lithology	Type	R-Ev	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr	VisK
1500.00	SH	DC										1
1600.00	SH	DC										1
1700.00	SH	DC										1
1800.00	SH	DC										1
1900.00	SH	DC										1
2000.00	SH	DC										1
2100.00	SH	DC										1
2200.00	SH	DC										1
2300.00	SH	DC										1
2400.00	SH	DC										1
2500.00	SH	DC										1
2600.00	SH	DC										1
2700.00	SH	DC										1
2800.00	SH	DC										1
2910.00	SH	DC										1
3000.00	SH	DC										1
3100.00	SH	DC										1
3200.00	SH	DC										1
3300.00	SH	DC										1
3400.00	SH	DC										1
3500.00	SH	DC										1
3600.00	SH	DC										1
3700.00	SH	DC										1
3800.00	SH	DC										1
3900.00	CALC.CLYST	DC										1
4000.00	SH	DC										1
4100.00	MRL	DC										1
4200.00	SH	DC										1
4300.00	SH	DC										1
4400.00	ROCK FLOUR	DC										1
4471.75		COCH	1									
4474.30		COCH	1									
4476.25		COCH	1	1	1	1	1		1			

ANALYSIS PROGRAMME, WELL NOR:34/8-7 (cont'd)

Depth (m)	Lithology	Type	R-Ev	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr	VisK
4478.00		COCH	1									
4478.25		COCH	1	1	1	1	1					
4478.25	SLTY.SH	COCH									1	
4478.75		COCH	1									
4484.25		COCH	1									
4486.90		COCH									1	
4489.30		COCH	1									
4490.75		COCH	1									
4500.00	SH	DC									1	
4522.50		SWC	1									
4574.00		SWC	1									
4592.00	CLYST	SWC	1	1	1	1	1		1			
4597.00		DC	1									
4600.00	CLYST	DC	1								1	
4602.00		DC	1									
4605.00		DC	1									
4607.00		DC	1									
4610.00		DC	1									
4610.00	CLYST	SWC	1	1	1	1	1					
4612.00		DC	1									
4615.00		DC	1									
4617.00		DC	1									
4618.50	CLYST	SWC	1									
4620.00		DC	1									
4622.00		DC	1									
4625.00		DC	1									
4627.00		DC	1	1	1	1	1					
4630.00		DC	1									
4632.00		DC	1									
4635.00		DC	1									
4648.75		COCH	1									
4651.50		COCH	1	1	1	1	1					
4652.60		COCH									1	

ANALYSIS PROGRAMME, WELL NOR:34/8-7 (cont'd)

Depth (m)	Lithology	Type	R-Ev	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr	VisK
4654.50		COCH	1									
4656.50		COCH									1	
4700.00	CLYST	DC									1	
4762.50	CLYST	SWC	1	1	1	1	1					
4800.00	CLYST	DC									1	
4900.00	SH	DC									1	
5000.00	SH	DC									1	
5100.00	SH	DC									1	
5127.75		COCH	1									
5129.25		COCH	1	1		1						
5129.50		COCH									1	
5130.50		COCH	1									
5131.75		COCH	1									
5131.80		COCH									1	
5200.00	SH	DC									1	
5300.00	SH	DC									1	
5400.00	SH	DC									1	
5422.50		COCH	1									
5424.50		COCH	1									
5426.25		COCH	1									
5427.50		COCH	1									
5460.00	SH	DC									1	

TABLE: 2.1

VITRINITE REFLECTANCE Ro (average values), WELL NOR:34/8-7

Depth (m)	Lithology	Type	Population I %Ro n	Population II %Ro n	Analysing Company
1500.00	SH	DC	0.33 (7)		GEO-OPTICS
1600.00	SH	DC	0.46 (2)		GEO-OPTICS
1700.00	SH	DC			GEO-OPTICS
1800.00	SH	DC	0.48 (3)		GEO-OPTICS
1900.00	SH	DC	0.48 (1)		GEO-OPTICS
2000.00	SH	DC	0.47 (2)		GEO-OPTICS
2100.00	SH	DC	0.48 (3)		GEO-OPTICS
2200.00	SH	DC	0.41 (3)		GEO-OPTICS
2300.00	SH	DC	0.40 (6)		GEO-OPTICS
2400.00	SH	DC	0.43 (3)		GEO-OPTICS
2500.00	SH	DC			GEO-OPTICS
2600.00	SH	DC	0.40 (1)		GEO-OPTICS
2700.00	SH	DC	0.47 (6)		GEO-OPTICS
2800.00	SH	DC	0.45 (4)		GEO-OPTICS
2910.00	SH	DC	0.55 (1)		GEO-OPTICS
3000.00	SH	DC			GEO-OPTICS
3100.00	SH	DC			GEO-OPTICS
3200.00	SH	DC			GEO-OPTICS
3300.00	SH	DC	0.39 (1)		GEO-OPTICS
3400.00	SH	DC			GEO-OPTICS
3500.00	SH	DC	0.62 (1)		GEO-OPTICS
3600.00	SH	DC	0.55 (3)		GEO-OPTICS
3700.00	SH	DC	0.55 (4)		GEO-OPTICS
3800.00	SH	DC	0.53 (3)		GEO-OPTICS
3900.00	CALC.CLYST	DC			GEO-OPTICS
4000.00	SH	DC	0.63 (3)		GEO-OPTICS
4100.00	MRL	DC			GEO-OPTICS
4200.00	SH	DC			GEO-OPTICS
4300.00	SH	DC			GEO-OPTICS
4400.00	ROCK FLOUR	DC	0.62 (2)		GEO-OPTICS
4478.25	SLTY.SH	COCH	0.98 (8)		GEO-OPTICS
4486.90		COCH	0.92 (4)		GEO-OPTICS
4500.00	SH	DC			GEO-OPTICS

TABLE: 2.1

VITRINITE REFLECTANCE Ro (average values), WELL NOR:34/8-7 (cont'd)

Depth (m)	Lithology	Type	Population I %Ro	n	Population II %Ro	n	Analysing Company
4600.00	CLYST	DC	1.22	(8)			GEO-OPTICS
4652.60		COCH	1.27	(22)			GEO-OPTICS
4656.50		COCH	1.29	(8)			GEO-OPTICS
4700.00	CLYST	DC	1.31	(20)			GEO-OPTICS
4800.00	CLYST	DC	1.24	(8)			GEO-OPTICS
4900.00	SH	DC	1.26	(5)			GEO-OPTICS
5000.00	SH	DC	1.26	(22)			GEO-OPTICS
5100.00	SH	DC	1.41	(12)			GEO-OPTICS
5129.50		COCH	1.37	(21)			GEO-OPTICS
5131.80		COCH	1.27	(3)			GEO-OPTICS
5200.00	SH	DC	1.24	(10)			GEO-OPTICS
5300.00	SH	DC	1.57	(7)			GEO-OPTICS
5400.00	SH	DC	1.21	(8)			GEO-OPTICS
5460.00	SH	DC	1.25	(3)			GEO-OPTICS

Depth	Indigenous spores	Bleached spores	Reworked spores
1500	3		
1600	3		
1700	3		6,5
1800	3		
1900	3		
2000	3		
2100	3,5	1,5	
2200	3,5		
2300	3,5		6
2400	3,5		5,5
2500	3,5		
2600	3,5		
2700	3,5		6,5
2800	3,5		
2910	3,5	1,5	6,5
3006	3,5		6
3100	3,5		6
3200	3,5		8
3300	4,5		7,5
3400	4,5		
3500	4,5		
3600	5,5		8
3700	5	3	8,5
3800	4		7,5
3900	6		
4000			7,5
4100	5,5		
4200	8		
4300	7,5		
4400	8		
4478,3	7,5		
4487	8		
4500	8		
4600	8		
4652,6	7,5		
4656,5	7,5		
4700	8		
4800	8		
4900	8,5	4	
5000	8,5		
5100	8,5		
5129,5	7,5		
4131,8	8,5		
5200	8,5	3,5	
5300	8,5	7	
5400	8,5		
5460	9		

Table 2.2 Spore colour data.

TABLE: 3.1

Petroleum Geochemistry Group
Research Centre Bergen
HYDRO

ROCK EVAL SCREENING DATA, WELL NOR:34/8-7

Depth (m)	Lithology	Type	Tmax DegC	S1 kg/t	S2 kg/t	TOC %	HI	PI	Analysing Company
4471.75		COCH		0.10	0.06	0.1	10	0.6	F-BERGEN
4474.30		COCH		0.14	0.42	1.5	2	0.2	F-BERGEN
4476.25		COCH	466	0.44	2.42	3.1	7	0.1	F-BERGEN
4478.00		COCH	468	0.10	0.52	1.0	5	0.1	F-BERGEN
4478.25		COCH	468	0.49	1.90	2.3	8	0.2	F-BERGEN
4478.75		COCH	471	0.15	0.49	1.0	4	0.2	F-BERGEN
4484.25		COCH		0.18	0.16	0.4	4	0.5	F-BERGEN
4489.30		COCH	466	0.16	0.30	0.7	4	0.3	F-BERGEN
4490.75		COCH	463	0.21	0.35	0.8	4	0.3	F-BERGEN
4522.50		SWC	467	0.31	0.69	1.6	4	0.3	F-BERGEN
4574.00		SWC	472	0.00	0.01	0.1	1		F-BERGEN
4592.00	CLYST	SWC	464	1.68	2.65	6.5	4	0.3	F-BERGEN
4597.00		DC	464	0.14	0.18	0.8	2	0.4	F-BERGEN
4600.00	CLYST	DC	470	0.15	0.23	1.1	2	0.3	F-BERGEN
4602.00		DC	465	0.12	0.20	1.1	1	0.3	F-BERGEN
4605.00		DC		0.16	0.20	1.2	1	0.4	F-BERGEN
4607.00		DC	463	0.11	0.15	0.9	1	0.4	F-BERGEN
4610.00		DC	467	0.13	0.23	1.0	2	0.3	F-BERGEN
4610.00	CLYST	SWC	467	0.63	0.89	2.0	4	0.4	F-BERGEN
4612.00		DC	468	0.11	0.25	1.0	2	0.3	F-BERGEN
4615.00		DC	472	0.13	0.25	1.2	2	0.3	F-BERGEN
4617.00		DC	467	0.20	0.40	1.5	2	0.3	F-BERGEN
4618.50	CLYST	SWC	477	0.47	0.90	1.5	5	0.3	F-BERGEN
4620.00		DC	472	0.22	0.42	1.8	2	0.3	F-BERGEN
4622.00		DC	482	0.11	0.31	1.3	2	0.2	F-BERGEN
4625.00		DC	471	0.23	0.74	2.6	2	0.2	F-BERGEN
4627.00		DC	472	0.45	1.73	1.3	13	0.2	F-BERGEN
4630.00		DC	481	0.08	0.24	1.1	2	0.2	F-BERGEN
4632.00		DC	473	0.23	0.47	1.6	3	0.3	F-BERGEN
4635.00		DC	481	0.15	0.21	0.8	2	0.4	F-BERGEN
4648.75		COCH		0.12	0.10	0.1	10	0.5	F-BERGEN
4651.50		COCH		0.14	0.04	0.1	2		F-BERGEN
4654.50		COCH		0.03	0.13	0.4	2	0.1	F-BERGEN

ROCK EVAL SCREENING DATA, WELL NOR:34/8-7 (cont'd)

Depth (m)	Lithology	Type	Tmax DegC	S1 kg/t	S2 kg/t	TOC %	HI	PI	Analysing Company
4762.50	CLYST	SWC	475	1.10	1.44	2.2	6	0.4	F-BERGEN
5127.75		COCH	492	0.07	0.91	2.4	3	0.0	F-BERGEN
5129.25		COCH		0.95	0.17	0.2	8	0.8	F-BERGEN
5130.50		COCH		0.06	0.10	0.1	9	0.3	F-BERGEN
5131.75		COCH		0.01	0.09	0.4	2	0.1	F-BERGEN
5422.50		COCH	403	0.00	0.06	0.0		0.0	F-BERGEN
5424.50		COCH		0.00	0.00	0.1			F-BERGEN
5426.25		COCH		0.02	0.00	0.0			F-BERGEN
5427.50		COCH		0.00	0.00	0.0			F-BERGEN

TABLE: 3.2

SEDIMENT EXTRACTION PERCENTAGES (GRAVIMETRIC), WELL NOR:34/8-7

Depth (m)	Lithology	Type	EOM (mg)	EOM (%)	Hydrocarbons(%) SAT	ARO	TOTAL	Non Hydrocarbons(%) POL	ASP	TOTAL	Analysing Company
4476.25		COCH	27.8	0	48.6	14.0	62.6	7.6	8.5	16.1	F-BERGEN
4478.25		COCH	20.7	0	78.6	10.2	88.8	6.8	2.5	9.3	F-BERGEN
4592.00	CLYST	SWC	9.9	0	29.3	32.7	62.0	13.8	3.5	17.3	F-BERGEN
4610.00	CLYST	SWC	3.1	0	64.5	21.5	86.0	10.8	7.5	18.3	F-BERGEN
4627.00		DC	9.2	0	15.6	35.0	50.6	23.3	11.0	34.3	F-BERGEN

TABLE: 3.3

SEDIMENT EXTRACTION PERCENTAGES (IATROSCAN), WELL NOR:34/8-7

Depth (m)	Lithology	Type	Hydrocarbons (%) SAT	ARO	TOTAL	Non Hydrocarbons (%) POL	ASP	TOTAL	Analysing Company
4476.25		COCH	21.5	33.5	55.0	36.5	8.5	45.0	F-BERGEN
4478.25		COCH	59.0	24.5	83.5	14.0	2.5	16.5	F-BERGEN
4592.00	CLYST	SWC	33.5	45.5	79.0	17.5	3.5	21.0	F-BERGEN
4610.00	CLYST	SWC	52.0	26.0	78.0	14.5	7.5	22.0	F-BERGEN
4627.00		DC	4.0	49.0	53.0	36.0	11.0	47.0	F-BERGEN

TABLE: 3.3

SEDIMENT EXTRACTION RATIOS (IATROSCAN), WELL NOR:34/8-7

Depth (m)	Lithology	Type	TOC (%)	EOM/TOC (%)	SAT/TOC (%)	SAT/ARO (%)	HC/Non HC (%)	Analysing Company
4476.25		COCH	3.1		7.0	0.6	1.2	F-BERGEN
4478.25		COCH	2.3		25.9	2.4	5.1	F-BERGEN
4592.00	CLYST	SWC	6.5		5.2	0.7	3.8	F-BERGEN
4610.00	CLYST	SWC	2.0		25.5	2.0	3.5	F-BERGEN
4627.00		DC	1.3		3.0	0.1	1.1	F-BERGEN

Table 3.4 **SATURATED FRACTION MOLECULAR RATIOS WELL 34/8-7**

Petroleum Geochemistry Group
Research Centre Bergen
HYDRO

Depth	%	Lithology	Type	Pristane / nC17	Pristane / Phytane	CPI-I	CPI-II	nC15+ / Total	nC20 / nC25
4476.25			COCH	0.49	3.07	1.14	1.10		
4478.25			COCH	0.25	2.41	1.06	1.04		
4592.00		CLYST	SWC	0.57	1.64	1.06	1.02		
4610.00		CLYST	SWC	0.33	1.76	1.08	1.01		
4627.00			DC	0.58	2.03	1.10	1.02		

Depth	32R/32S	%20S	%abb	Ts/Tm	BNH/H	DIA/H
4476,25		0,55	0,59	0,50		4,20
4610,00	0,75	0,52	0,49	1,00	0,17	0,17
4627,00	0,71	0,53	0,52	1,03	0,17	0,14

Table 3.5 Biomarker ratios.

TABLE: 4.1

SEDIMENT EXTRACTION PERCENTAGES (GRAVIMETRIC), WELL NOR:34/8-7

Depth (m)	Lithology	Type	EOM (mg)	EOM (%)	Hydrocarbons(%) SAT	ARO	TOTAL	Non Hydrocarbons(%) POL	ASP	TOTAL	Analysing Company
4651.50		COCH	4.8	0	61.1	24.4	85.6	6.1	4.0	10.1	F-BERGEN
4762.50	CLYST	SWC	4.1	0	55.6	18.5	74.1	18.5	7.0	25.5	F-BERGEN
5129.25		COCH	0.4	0					28.0	28.0	F-BERGEN

TABLE: 4.2

SEDIMENT EXTRACTION PERCENTAGES (IATROSCAN), WELL NOR:34/8-7

Depth (m)	Lithology	Type	Hydrocarbons (%) SAT	ARO	TOTAL	Non Hydrocarbons (%) POL	ASP	TOTAL	Analysing Company
4651.50		COCH	58.0	24.5	82.5	13.5	4.0	17.5	F-BERGEN
4762.50	CLYST	SWC	67.0	14.5	81.5	11.5	7.0	18.5	F-BERGEN
5129.25		COCH	12.0	24.0	36.0	36.0	28.0	64.0	F-BERGEN

TABLE: 4.2

SEDIMENT EXTRACTION RATIOS (IATROSCAN), WELL NOR:34/8-7

Depth (m)	Lithology	Type	TOC (%)	EOM/TOC (%)	SAT/TOC (%)	SAT/ARO (%)	HC/Non HC (%)	Analysing Company
4651.50		COCH	0.1		414.3	2.4	4.7	F-BERGEN
4762.50	CLYST	SWC	2.2		30.9	4.6	4.4	F-BERGEN
5129.25		COCH	0.2		63.2	0.5	0.6	F-BERGEN

TABLE: 4.3

Petroleum Geochemistry Group
Research Centre Bergen
HYDRO

SATURATED FRACTION MOLECULAR RATIOS, SEDIMENT SAMPLES, WELL NOR:34/8-7

Depth (m)	Lithology	Type	Pristane/ nC17	Pristane/ Phytane	CPI-I	CPI-II	nC17/ nC17+nC27	Analysing Company
4651.50		COCH	0.57	1.47	1.04	0.99		F-BERGEN
4762.50	CLYST	SWC	0.17	1.66	1.08	1.00		F-BERGEN

Depth	32R/32S	%20S	%abb	Ts/Tm	BNH/H	DIA/H
4651,00	0,33	0,51	0,52	1,00	0,31	0,13
4762,00	0,50	0,54	0,51	1,00	0,83	

Table 4.4 Biomarker ratios.

SIMON-ROBERTSON LIMITED

REPORT NO. 7199/Ic

SPORE COLOUR AND KEROGEN TYPING STUDY OF THE NORSK HYDRO 34/8-7 WELL, INTERVAL 1500m TO 5460m NORWEGIAN SECTOR, NORTH SEA

by

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OCTOBER 1992

2 INTRODUCTION

This report presents the results of spore colour and visual kerogen typing studies carried out on 42 cuttings and 5 cores samples from the interval 1500m to 5460m in the 34/8-7 well, Norwegian North Sea.

Clean and dried cuttings and core samples from Norsk Hydro arrived at Simon-Robertson's North Wales laboratories on 16 July 1992. Preliminary results were sent by facsimile message to Elin Rein, our contact at Norsk Hydro for this project, on 9 September, 1992. The work programme followed for this study was detailed in Simon-Robertson's proposal number IC/91/058 of 18 November 1991, and the study was carried out under the authority of Norsk Hydro's purchase order number NHO 579931 of 14 July 1992.

Simon-Robertson personnel involved in this study were:

C Darlington, A G Collins	-	Project advice
R Harding	-	Microscopy, interpretation and report preparation
K Oakley	-	Supervision of kerogen preparation

The numbers of analyses performed were as follows:

Kerogen isolation and slide preparation	:	47
Spore colouration	:	47
Kerogen typing	:	47

General Well Data

Operator	:	Norsk Hydro
Water depth	:	334m
KB elevation	:	23m
Co-ordinates	:	61°19'09.100"N 02°33'32.700"E
TD	:	5460m
Casing details	:	444m(30"), 1435m(20") 3264m($13^3/_8$"), 3946m($9^5/_8$), 5460m(7")
Spud date	:	21 March 1992
Completion date	:	16 July 1992
Analytical interval	:	1500m to 5460m

COMPANY: NORSK HYDRO WELL: 34/8-7 LOCATION: NORTH SEA (NOR)

GENERAL DATA			MATURITY DATA		KEROGEN COMPOSITION DATA						
SAMPLE DEPTH (Metres)	SAMPLE TYPE	ANALYSED LITHOLOGY	SPORE COLOUR INDEX	VITR. REFL. R oil av %	% (Visual, from microscopy)			% (Calculated)			
					INERTINITE	VITRINITE	SAPROPEL	INERT	VIT	ALG SAP	WXY SAP
1500	Ctgs	No liths available	3.0		*	10	90				
1600	Ctgs	No liths available	3.0		*	15	85				
1700	Ctgs	No liths available	3.0 6.5 R		5	35	60				
1800	Ctgs	No liths available	3.0		Prt	15	85				
1900	Ctgs	No liths available	3.0		10	5	85				
2000	Ctgs	No liths available	3.0		10	20	70				
2100	Ctgs	No liths available	3.5 1.5 C		5	15	80				
2200	Ctgs	No liths available	3.5		5	15	80				
2300	Ctgs	No liths available	3.5 6.0 R		15	65	20				
2400	Ctgs	No liths available	3.5 5.5 R		10	75	15				
2500	Ctgs	No liths available	3.5		10	85	5				
2600	Ctgs	No liths available	3.5		10	80	10				
2700	Ctgs	No liths available	3.5 6.5 R		15	80	5				
2800	Ctgs	No liths available	3.5		15	80	5				
2910	Ctgs	No liths available	3.5 1.5 C 6.5 R		10	80	10				
3006	Ctgs	No liths available	3.5 6.0 R		10	85	5				
3100	Ctgs	No liths available	3.5 6.0 R		10	80	10				
3200	Ctgs	No liths available	8.0 R		5	90	5				
3300	Ctgs	No liths available	4.5 7.5 R		5	90	5				
3400	Ctgs	No liths available	4.5 ?		10	90	Mnr				
3500	Ctgs	No liths available	4.5 ?		15	85	Mnr				
3600	Ctgs	No liths available	5.5 ? 8.0 R		10	90	Prt				
3700	Ctgs	No liths available	5.0 3.0 C 8.5 R		5	95	Prt				
3800	Ctgs	No liths available	4.0 C 7.5 R		15	80	5				
3900	Ctgs	No liths available	6.0		30	70	Mnr				
4000	Ctgs	No liths available	7.5 R		10	85	5				

MATURITY AND KEROGEN COMPOSITION DATA

TABLE : 1A

COMPANY: NORSK HYDRO WELL: 34/8-7 LOCATION: NORTH SEA (NOR)

GENERAL DATA			MATURITY DATA		KEROGEN COMPOSITION DATA						
SAMPLE DEPTH (Metres)	SAMPLE TYPE	ANALYSED LITHOLOGY	SPORE COLOUR INDEX	VITR. REFL. R oil av %	% (Visual, from microscopy)			% (Calculated)			
					INERTINITE	VITRINITE	SAPROPEL	INERT	VIT	ALG SAP	WXY SAP
4100	Ctgs	No liths available	5.5		10	90	Mnr				
4200	Ctgs	No liths available	8.0		40	50	10				
4300	Ctgs	No liths available	7.5		40	40	20				
4400	Ctgs	No liths available	8.0		5	85	10				
4478.3	Core	No liths available	7.5		25	65	10				
4487	Ctgs	No liths available	8.0		50	50	Mnr				
4500	Ctgs	No liths available	8.0		55	45	Mnr				
4597-600	Ctgs	No liths available	8.0		45	50	5				
4652.6	Core	No liths available	7.5		65	30	5				
4656.5	Core	No liths available	7.5		70	30	Prt				
4700	Ctgs	No liths available	8.0		35	60	5				
4800	Ctgs	No liths available	8.0		40	60	Mnr				
4900	Ctgs	No liths available	8.5 4.0 C		30	70	Prt				
5000	Ctgs	No liths available	8.5		10	80	10				
5100	Ctgs	No liths available	8.5		30	70	Mnr				
5129.5	Core	No liths available	7.5		10	90	Prt				
5131.8	Core	No liths available	8.5		10	90	Prt				
5200	Ctgs	No liths available	8.5 3.5 C		10	85	5				
5300	Ctgs	No liths available	8.5 7.0 C		30	65	5				
5400	Ctgs	No liths available	8.5		30?	70?	Mnr?				
5460	Ctgs	No liths available	9.0		30?	70?	Mnr?				

MATURITY AND KEROGEN COMPOSITION DATA

TABLE : 1B

COMPANY: NORSK HYDRO WELL: 34/8-7 LOCATION: NORWEGIAN NORTH SEA

		Kerogen Type (%)				
Depth (m)	SCI	Inertinite	Vitrinite (Struct.)	Amorphous (Non-fluor.)	Amorphous (Fluor.)	Liptinite (Struct.)
1500	3.0	0	0	10	90	Mnr (Sp;Di)
1600	3.0	0	0	15	85	Mnr (Di;Sp)
1700	3.0 6.5R	5	Tr	35	60	Mnr (Di;Sp)
1800	3.0	Tr	0	15	85	Tr (Di;Sp)
1900	3.0	10	5	0	80	5 (Sp;Di)
2000	3.0	10	5	15	65	5 (Sp;Di)
2100	3.5 1.5C	5	5	10	75	5 (Sp;Di)
2200	3.5	5	5	10	75	5 (Sp;Di)
2300	3.5 6.0R	15	5	60	15	5 (Sp;Di)
2400	3.5 5.5R	10	5	70	10	5 (Sp;Di)
2500	3.5	10	5	80	5	Mnr (Di;Sp)
2600	3.5	10	10	70	5	5 (Di;Sp)
2700	3.5 6.5R	15	5	75	5	Mnr (Di;Sp)
2800	3.5	15	5	75	5	Mnr (Di;Sp)
2910	3.5 1.5C 6.5R	10	5	75	10	Mnr (Di;Sp)

C - Caved
R - Reworked
Di - Dinoflagellates
Sp - Spores and pollen grains

DETAILED KEROGEN TYPING DATA

TABLE 2A

COMPANY: NORSK HYDRO WELL: 34/8-7 LOCATION: NORWEGIAN NORTH SEA

		Kerogen Type (%)				
Depth (m)	SCI	Inertinite	Vitrinite (Struct.)	Amorphous (Non-fluor.)	Amorphous (Fluor.)	Liptinite (Struct.)
3006	3.5 6.5R	10	5	80	5	Mnr (Di;Sp)
3100	3.5 6.0R	10	5	75	10	Tr (Di;Sp)
3200	8.0R	5	Tr	90	5	Mnr (Di;Sp)
3300	4.5 7.5R	5	Tr	90	5	Mnr (Di;Sp)
3400	4.5?	10	Tr	90	Mnr	Mnr (Di;Sp)
3500	4.5?	15	10	75	Mnr	Mnr (Di;Sp)
3600	5.5? 8.0R	10	10	80	Tr	Tr (Di;Sp)
3700	5.0 3.0C 8.5R	5	10	85	0	Tr (Di;Sp)
3800	4.0C 7.5R	15	15	65	Tr	5 (Di;Sp)
3900	6.0	30	20	50	0	Mnr (Di;Sp)
4000	7.5R	10	10	75	0	5 (Di;Sp)
4100	5.5	10	10	80	Mnr	Tr (Di;Sp)
4200	8.0	40	10	40	10	Mnr (Sp;Di)
4300	7.5	40	10	30	20	Mnr (Di;Sp)
4400	8.0	5	10	75	10	Mnr (Di;Sp)
4478.3	7.5	25	5	60	0	10 (Sp;Di)

C - Caved
R - Reworked
Di - Dinoflagellates
Sp - Spores and pollen grains

DETAILED KEROGEN TYPING DATA

TABLE 2B

COMPANY: NORSK HYDRO WELL: 34/8-7 LOCATION: NORWEGIAN NORTH SEA

		Kerogen Type (%)				
Depth (m)	SCI	Inertinite	Vitrinite (Struct.)	Amorphous (Non-fluor.)	Amorphous (Fluor.)	Liptinite (Struct.)
4486.9	8.0	50	10	40	0	Mnr (Sp;Di)
4500	8.0	55	5	40	Mnr	Tr (Di;Sp)
4597-4600	8.0	45	20	30	Mnr	5 (Sp;Di)
4652.6	7.5	65	20	10	0	5 (Sp;Di)
4656.5	7.5	70	25	5	0	Tr (Sp)
4700	8.0	35	10	50	0	5 (Sp)
4800	8.0	40	20	40	0	Mnr (Sp;Di)
4900	8.5 4.0C	30	20	50	0	Tr (Sp;Di)
5000	8.5	10	30	50	0	10 (Sp;Di)
5100	8.5	30	30	40	0	Mnr (Sp;Di)
5129.5	7.5	10	90	Mnr	0	Tr (Sp)
5131.8	8.5	10	10	80	0	Tr (Sp)
5200	8.5 3.5C	10	45	40	0	5 (Sp;Di)
5300	8.5 7.0C	30	35	30	0	5 (Sp;Di)*
5400	8.5	30?	30?	40?	0	Mnr?(Di;Sp)*
5460	9.0	30?	30?	40?	0	Mnr?(Di;Sp)*

C - Caved
R - Reworked
Di - Dinoflagellates
Sp - Spores and pollen grains
* - Primarily caved

DETAILED KEROGEN TYPING DATA

TABLE 2C

APPENDIX 1
ABBREVIATIONS USED IN ANALYTICAL DATA SHEETS

a/a	-	as above
Ac	-	acritarchs
ADD	-	mud additive
Al	-	algae
Am	-	amorphous
ang	-	angular
ANH	-	anhydrite
aren	-	arenaceous
arg	-	argillaceous
BAS	-	basalt
bd	-	bedded/bedding
B(IT)	-	bitumen/bituminous
bl	-	blue
bld	-	bleached
blk	-	black
bri	-	brilliant
brn	-	brown
calc	-	calcareous
CALT	-	calcite
carb	-	carbonaceous
CGL	-	conglomerate
CHK	-	chalk
CHT	-	chert
CLYST	-	claystone
CMT	-	cement
Comp	-	composite
crs	-	coarse
CSG	-	casing point/shoe
Ctgs	-	ditch cuttings
Cu	-	cuticle
C(vd)	-	caved
decarb	-	decarbonated
Di	-	dinocysts
dk	-	dark
DLT	-	dolerite
DOL/dol	-	dolomite/dolomitic
dsk	-	dusky
Ex	-	exinite
Exs	-	exsudatinite
extr	-	extracted
f	-	fine
fel	-	feldspathic
fer	-	ferruginous
flu	-	fluorescence
fm	-	formation
foss	-	fossils/fossiliferous
fr	-	friable
frac	-	fracture
frags	-	fragments
Fu	-	fusinite
GLC/glc	-	glauconite/glauconitic
gn	-	green
grd	-	graded/grading to
grns	-	grains
gy	-	grey
GYP	-	gypsum
HAL	-	halite
hd	-	hard
hor	-	horizontal
H(RV)	-	high reflecting vitrinite
i-	-	iso-
i/b	-	inter-bedded
IGN	-	igneous rocks
inc	-	including
Inert	-	inertinite
lam	-	laminae/laminated
LCM	-	lost circulation material
LIG/Lig	-	lignite/lignitic
lns	-	lens(es)
L(RV)	-	low reflecting vitrinite
LST	-	limestone
lt	-	light
mass	-	massive
MDST	-	mudstone
med	-	medium
MET	-	metamorphic rocks
mic	-	mica/micaceous
micr	-	micritic
min	-	mineral
mnr	-	minor
mod	-	moderate
mtl	-	mottled
n-	-	normal
NA	-	not available
nod	-	nodule/nodular
NS	-	no sample
occ	-	occasional
ol	-	olive
ool	-	oolitic
orng	-	orange
OS	-	oil stain
P	-	picked lithology
pal	-	pale
Ph	-	phytane
pnk	-	pink
por	-	porous/porosity
pp	-	purple
Pr	-	pristane
pred	-	predominantly
Prt	-	present
PYR/pyr	-	pyrite/pyritic
QTZ(T)	-	quartz(ite)
Re	-	resin
R(ew)	-	reworked
rnd	-	round(ed)
Sap	-	sapropel
sbng	-	subangular
sbrd	-	subrounded
SCI	-	spore colour index
Sf	-	semifusinite
sft	-	soft
SH	-	shale
shly	-	shaly
sil	-	siliceous
sks	-	slickenside surface
SLA	-	slate
SLT(ST)	-	silt(stone)
slty	-	silty
SND	-	sand
sndy	-	sandy
Sp	-	spores
SST	-	sandstone
st	-	stained
stks	-	streaks
suc	-	sucrosic
surf	-	surface
SWC	-	side wall core
TD	-	total depth
TOC	-	total organic carbon
tr	-	trace(s)
trns	-	transparent
v	-	very
vgt	-	variegated
Vit	-	vitrinite
vn	-	vein
VOLC	-	volcanic rocks
VR	-	vitrinite reflectivity
wht	-	white
xln	-	crystalline
yel	-	yellow
-	-	no analysis carried out
*	-	analysed but no data obtained
gy-gn	-	greyish green
gy/gn	-	grey-green (gradation)
gn-gy	-	greenish grey

Note: (Maturity data tables only). Number in brackets refers to number of reflectivity values averaged to give quoted result. Preferred values for indigenous phytoclasts are listed first.