NORWEGIAN GULF EXPLORATION COMPANY A/S

WELL 35/8-3

HOLE/CASING/MUD/CEMENTING DATA SUMMARY

HOLE SIZE/ MUD TYPE	CASING	RKB TO MUDLINE 396M SHOE DEPTH (M RKB)	CEMENTIN.
12 1/4" Pilot - 845 m Seawater 1.08 SG Spud Mud			
36" Mud Line - 533 m Seawater Spud Mud	30"-X52-1" Wall 310 lbs/ft Vetco Alt-2	531.5 m	871 SxG 1.51 SG 0.47 Gal/sx D75 + Seawater 1000 SxG 1.9 SG 0.4 Gal/sx D77 + Seawater
26" 533 - 830 m Seawater 1.08 SG Spud Mud	20"-X56-133 lbs/ft Vetco LS	818.5 m	1574 SxG 1.51 SG 0.41 Gal/sx D75 + 0.06 Gal/sx D81 + Seawater 500 SxG 1.9 SG Seawater
17½" 830 - 2174 m Dispac and Seawater	13 3/8"-N80-721 lbs/ft Buttress	2159.5 m	1626 SxG 1.51 SG 0.41 Gal/sx D77 + 0.27 Gal/sx D81 + Seawater 500 SxG 1.9 SG 0.09 Gal/sx D81 + Fresh Water
12 1/4" 2174 - 3560 - KCL/Polymer and Seawater	9 5/8"-P110-53.5l lbs/ft New VAM	3545 m	1426 SxG 1.9 SG 0.12 Gal/sx D801 + Fresh Wate
12 1/4" Kick Off from 3371 m. KCL/Polymer and Seawater			
8½" 3560 - 3944 m KCL/ Polymer and Seawater	No casing run		

Abandonment Plugs (mRKB).

Cement plugs set at - 3944 - 3750, 3600 - 3450, 2043 - 2020, 650 - 440,
52 tons of cement were put over the TGB on the seabed.

Retainers and Bridge Plugs - 3291, 2500, 2043

Total Mud Materials 35/8-3

TOTAL MUD MATERIALS

WELL: 35/8-3 **OPERATOR:** Norwegian Gulf Exploration Co.

Quantity:	Material:	Units: Cost:	Unit Price	Total
96	API Bentonite	ton	1 600,00	153 600,00
90	Barite	50 kg	55,88	5 029,20
1340	Barite	ton	580,00	777 200,00
71	Carbo-Mul	liter	60,00	4 260,00
528	Drispac Reg	50 lbs	600,00	316 800,00
704	Drispac SL	50 lbs	600,00	422 400,00
6	Free-pipe	200 liter	990,00	5 940,00
54350	KCL	kg	1,70	92 395,00
860	KCL-brine	cubic meter	440,00	378 400,00
47	Milspot	50 lbs	345,00	16 215,00
20	Miltemp	50 lbs	2 950,00	59 000,00
158	NaOH	25 kg	120,00	18 960,00
72	Potassium Nitrate	50 kg	640,00	46 080,00
3	Probio II	25 liter	800,00	2 400,00
70	Prolignite	25 kg	140,00	9 800,00
1	Proplug C	25 kg	85,00	85,0
1	Proplug F	25 kg	85,00	85,00
60	Prothin C	25 kg	150,00	9 000,00
36	Soda Ash	25 kg	150,00	5 400,00
136	Sodium Bicarbonate	50 kg	150,00	20 400,00
200	XCD-polymer	25 kg	1 450,00	290 000,00
		Total Cost:		2 633 449,20
Depth at TD (m)	3944	Average Cost pr Meter		742,23

12¼" PILOT HOLE

WELL:	35/8-3	**OPERATOR:**	Norwegian Gulf Exploration Co.	
CASING:	not cased	**FROM/TO:**		
BIT:	12 1/4"	**FROM/TO:**	396 m	845 m

Quantity:	Material:	Units:	Unit Price	Total Cost:
20	API Bentonite	ton	1 600,00	32 000,00
44	Barite	ton	580,00	25 520,00
12	NaOH	25 kg	120,00	1 440,00
9	Soda Ash	25 kg	150,00	1 350,00

	Total Cost for Interval:	60 310,00
	Average Cost pr Meter:	648,49
Drilling days: 3	Average Cost pr Day	20 103,33

36" HOLE

WELL:	35/8-3	**OPERATOR:**	Norwegian Gulf Exploration Co.	
CASING:	30"	**FROM/TO:**	396,0 m	531,0 m
BIT:	36" HO	**FROM/TO:**	396.0 m	535.0 m

Quantity:	Material:	Units:	Unit Price	Total Cost:
30	API Bentonite	ton	1 600,00	48 000,00
36	Barite	ton	580,00	20 880,00
20	NaOH	25 kg	120,00	2 400,00
7	Soda Ash	25 kg	150,00	1 050,00

	Total Cost for Interval:	72 330,00
	Average Cost pr Meter:	520,36
Drilling days: 4	Average Cost pr Day	18 082,50

26" HOLE

WELL:	35/8-3	**OPERATOR:**	Norwegian Gulf Exploration Co.	
CASING:	20"	**FROM/TO:**	396,0 m	818.5 m
BIT:	26"	**FROM/TO:**	531.0 m	830.0 m

Quantity:	Material:	Units:	Unit Price	Total Cost:
46	API Bentonite	ton	1 600,00	73 600,00
48	Barite	ton	580,00	27 840,00
30	NaOH	25 kg	120,00	3 600,00
18	Soda Ash	25 kg	150,00	2 700,00

	Total Cost for Interval:	107 740,00
	Average Cost pr Meter:	360,33
Drilling days: 4	Average Cost pr Day	26 935,00

17½" HOLE

WELL:	35/8-3	**OPERATOR:**	Norwegian Gulf Exploration Co.	
CASING:	13 3/8"	**FROM/TO:**	396,0 m	2159,0 m
BIT:	17 1/2"	**FROM/TO:**	830,0 m	2174,0 m

Quantity:	Material:	Units:	Unit Price	Total Cost:
200	Barite	ton	580,00	116 000,00
256	Dispac Reg	50 lbs	600,00	153 600,00
201	Dispac SL	50 lbs	600,00	120 600,00
16	NaOH	25 kg	120,00	1 920,00
3	Probio II	25 liter	800,00	2 400,00
11	XCD-polymer	25 kg	1 450,00	15 950,00

	Total Cost for Interval:	410 470,00
	Average Cost pr Meter:	305,41
Drilling days: 14	Average Cost pr Day	29 319,29

12¼" HOLE

WELL:	35/8-3	**OPERATOR:**	Norwegian Gulf Exploration Co.	
CASING:	9 5/8"	**FROM/TO:**	396,0 m	3545.0 m
BIT:	12 1/4"	**FROM/TO:**	2159.0 m	3545.0 m

Quantity:	Material:	Units:	Unit Price	Total Cost:
500	Barite	ton	580,00	290 000,00
70	Carbo-Mul	liter	60,00	4 200,00
215	Dispac Reg	50 lbs	600,00	129 000,00
410	Dispac SL	50 lbs	600,00	246 000,00
50000	KCI	kg	1,70	85 000,00
680	KCI-brine	cubic meter	440,00	299 200,00
40	Milspot	50 lbs	345,00	13 800,00
53	NaOH	25 kg	120,00	6 360,00
52	Potassium Nitrate	50 kg	640,00	33 280,00
120	Sodium Bicarbonate	50 kg	150,00	18 000,00
173	XCD-polymer	25 kg	1 450,00	250 850,00

	Total Cost for Interval:	1 375 690,00
	Average Cost pr Meter:	992,56
Drilling days: 37	Average Cost pr Day	37 180,81

8½" HOLE

WELL: 35/8-3 **OPERATOR:** Norwegian Gulf Exploration Co.
CASING: not cased **FROM/TO:**
BIT: 8 1/2" **FROM/TO:** 3545.0 m 3944.0 m

Quantity:	Material:	Units:	Unit Price	Total Cost:
512	Barite	ton	580,00	296 960,00
90	Barite	50 kg	55,80	5 022,00
1	Carbo-Mul	liter	60,00	60,00
57	Dispac Reg	50 lbs	600,00	34 200,00
93	Dispac SL	50 lbs	600,00	55 800,00
6	Free-pipe	200 liter	990,00	5 940,00
4350	KCL	kg	1,70	7 395,00
180	KCL-brine	cubic meter	440,00	79 200,00
7	Milspot	50 lbs	345,00	2 415,00
20	Miltemp	50 lbs	2 950,00	59 000,00
27	NaOH	25 kg	120,00	3 240,00
20	Potassium Nitrate	50 kg	640,00	12 800,00
70	Prolignite	25 kg	140,00	9 800,00
1	Proplug C	25 kg	85,00	85,00
1	Proplug F	25 kg	85,00	85,00
60	Prothin C	25 kg	150,00	9 000,00
2	Soda Ash	25 kg	150,00	300,00
16	Sodium Bicarbonate	50 kg	150,00	2 400,00
16	XCD-polymer	25 kg	1 450,00	23 200,00

	Total Cost for Interval:	606 902,00
	Average Cost pr Meter:	1 517,26
Drilling days: 22	Average Cost pr Day	27 586,45

DAILY DRILLING MUD PROPERTIES, part 1

Date: 1988-11-09

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date	Time	Depth	Mud Density	Funnel Viscosity	Plastic Viscosity	Yield Point	10 sec gel	10 min gel	pH	Filtrate API	Filtrate HTHP	Filtrate temp HTHP	Cake Thick-ness	Alkal. Mud (Pm)	Alkal. Filtrate (Pf)
Unit ->		m	s.g.	sec/qt	lbs/100	lbs/100	lbs/100 sqft			ml/30min	ml/30min	deg C	32nd in	ml	ml
88-07-05	23:59	0.0	1.05	0	13	24.00	24.00	34.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-06	23:59	685.0	1.05	0	13	24.00	23.00	35.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-07	23:59	845.0	1.05	0	13	24.00	24.00	33.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-08	23:59	495.0	1.05	0	13	24.00	24.00	33.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-09	23:59	535.0	1.05	0	13	24.00	25.00	33.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-10	23:59	585.0	1.05	0	13	24.00	25.00	35.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-11	23:59	531.0	1.05	0	13	24.00	24.00	33.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-12	23:59	651.0	1.05	0	13	24.00	23.00	33.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-13	23:59	830.0	1.05	0	13	24.00	24.00	34.00	10.0	0.0	0.0	0.0	0	0.00	0.00
88-07-15	19:00	818.0	1.03	0	20	24.00	2.00	4.00	9.7	0.0	0.0	0.0	0	0.00	0.00
88-07-16	14:00	818.0	1.03	0	21	23.00	2.00	4.00	9.6	0.0	0.0	0.0	0	0.10	0.10
88-07-17	22:00	818.0	1.03	0	14	12.00	1.00	3.00	9.6	0.0	0.0	0.0	0	0.20	0.10
88-07-18	14:00	818.0	1.03	0	14	12.00	2.00	4.00	9.6	0.0	0.0	0.0	0	0.20	0.10
88-07-19	22:00	850.0	1.05	63	16	16.00	1.00	3.00	9.4	9.6	0.0	0.0	0	0.30	0.10
88-07-20	06:30	1027.0	1.12	63	18	15.00	2.00	4.00	9.0	6.6	0.0	0.0	1	0.20	0.10
88-07-20	10:30	1061.0	1.11	58	16	14.00	2.00	4.00	8.8	6.0	0.0	0.0	0	0.20	0.10
88-07-20	21:00	1150.0	1.14	54	15	13.00	2.00	4.00	9.0	6.0	0.0	0.0	1	0.20	0.10
88-07-21	10:30	1176.0	1.14	55	14	13.00	2.00	3.00	8.9	6.0	0.0	0.0	1	0.20	0.10
88-07-21	21:00	1205.0	1.14	50	14	13.00	2.00	4.00	8.8	6.2	0.0	0.0	1	0.20	0.10
88-07-22	07:45	1211.0	1.14	54	14	12.00	2.00	3.00	8.8	6.0	0.0	0.0	1	0.20	0.10
88-07-22	15:15	1336.0	1.15	54	14	12.00	2.00	3.00	8.7	6.0	0.0	0.0	1	0.20	0.10
88-07-22	21:00	1444.0	1.14	0	14	13.00	2.00	3.00	8.8	5.6	0.0	0.0	1	0.20	0.10
88-07-23	07:00	1538.0	1.15	53	15	12.00	2.00	3.00	8.7	6.0	0.0	0.0	1	0.20	0.10
88-07-23	12:00	1603.0	1.15	0	15	11.00	2.00	3.00	8.7	6.0	0.0	0.0	1	0.20	0.10
88-07-23	21:30	1754.0	1.15	52	15	12.00	2.00	4.00	8.7	5.8	0.0	0.0	1	0.20	0.10
88-07-24	09:00	1805.0	1.18	0	15	10.00	2.00	4.00	8.7	6.0	0.0	0.0	1	0.20	0.10
88-07-24	21:30	1835.0	1.18	53	16	11.00	2.00	5.00	8.7	5.4	0.0	0.0	1	0.20	0.10
88-07-25	08:30	1910.0	1.18	52	15	11.00	2.00	6.00	8.6	6.0	0.0	0.0	1	0.20	0.20
88-07-25	15:00	1966.0	1.18	0	15	13.00	3.00	7.00	8.6	6.0	0.0	0.0	1	0.10	0.10
88-07-25	21:00	1974.0	1.18	0	15	13.00	2.00	8.00	8.7	5.8	0.0	0.0	1	0.20	0.10
88-07-26	07:30	1998.0	1.18	54	15	11.00	2.00	6.00	8.6	6.0	0.0	0.0	1	0.20	0.10
88-07-26	20:30	2110.0	1.18	52	14	12.00	2.00	7.00	8.5	5.2	0.0	0.0	1	0.10	0.10
88-07-27	23:30	2174.0	1.18	0	14	12.00	2.00	6.00	8.4	5.6	0.0	0.0	1	0.10	0.10
88-07-28	21:00	2174.0	1.18	0	14	8.00	1.00	5.00	8.5	6.0	0.0	0.0	1	0.10	0.10
88-07-29	21:00	2174.0	1.18	0	13	7.00	0.00	0.00	8.8	0.0	0.0	0.0	0	0.00	0.00
88-07-30	23:59	2159.0	1.18	0	14	8.00	2.00	5.00	8.5	6.0	0.0	0.0	1	0.10	0.10
88-07-31	15:30	2194.0	1.18	56	14	12.00	1.00	3.00	10.2	4.3	0.0	0.0	1	0.15	0.10
88-07-31	19:30	2232.0	1.18	55	14	12.00	1.00	2.00	9.6	5.2	0.0	0.0	1	0.15	0.10
88-07-31	23:59	2271.0	1.18	54	14	12.00	2.00	2.00	9.4	6.2	0.0	0.0	1	0.20	0.15
88-08-01	04:40	2297.0	1.18	50	15	9.00	1.00	2.00	9.3	5.4	0.0	0.0	1	0.10	0.10
88-08-01	10:30	2320.0	1.18	0	12	10.00	1.00	2.00	9.1	5.0	0.0	0.0	1	0.10	0.10
88-08-02	04:15	2330.0	1.19	45	10	8.00	1.00	2.00	8.9	5.2	0.0	0.0	1	0.10	0.05
88-08-02	10:00	2375.0	1.19	48	9	10.00	1.00	2.00	8.5	5.2	0.0	0.0	1	0.10	0.05
88-08-02	23:59	2473.0	1.20	47	10	10.00	1.00	2.00	8.1	5.2	0.0	0.0	1	0.00	0.00
88-08-03	08:30	2510.0	1.20	47	10	10.00	1.00	2.00	8.4	5.2	0.0	0.0	1	0.05	0.05
88-08-03	23:59	2526.0	1.20	45	12	10.00	1.00	2.00	8.5	5.0	0.0	0.0	1	0.05	0.05
88-08-04	08:00	2613.0	1.20	44	11	12.00	2.00	3.00	8.0	5.6	0.0	0.0	1	0.00	0.00
88-08-04	14:45	2651.0	1.22	46	12	16.00	3.00	12.00	8.3	5.6	0.0	0.0	1	0.00	0.00

DAILY DRILLING MUD PROPERTIES, part 1

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date	Time	Depth	Mud Density	Funnel Viscosity	Plastic Viscosity	Yield Point	10 sec gel	10 min gel	pH	Filtrate API	Filtrate HTHP	Filtrate temp HTHP	Cake Thick-ness	Alkal. Mud (Pm)	Alkal. Filtrate (Pf)
Unit ->		m	s.g.	sec/qt	lbs/100	lbs/100	lbs/100 sqft			ml/30min	ml/30min	deg C	32nd in	ml	ml
88-08-04	23:59	2697.0	1.25	49	12	14.00	3.00	9.00	8.6	5.6	0.0	0.0	1	0.25	0.05
88-08-05	01:29	2733.0	1.25	42	12	13.00	3.00	7.00	8.4	5.5	0.0	0.0	1	0.20	0.00
88-08-05	11:00	2775.0	1.25	40	11	11.00	2.00	7.00	8.2	5.6	0.0	0.0	1	0.00	0.00
88-08-05	14:15	2794.0	1.25	42	11	10.00	3.00	8.00	8.1	5.8	0.0	0.0	1	0.00	0.00
88-08-05	20:00	2826.0	1.25	39	10	12.00	3.00	14.00	8.3	5.8	0.0	0.0	1	0.00	0.00
88-08-05	23:59	2843.0	1.25	40	10	10.00	2.00	13.00	8.2	5.8	28.0	115.0	1	0.00	0.00
88-08-06	20:00	2843.0	1.25	40	10	10.00	2.00	13.00	8.2	5.8	0.0	0.0	1	0.00	0.00
88-08-07	17:00	2852.0	1.25	40	11	10.00	3.00	10.00	8.1	5.8	0.0	0.0	1	0.00	0.00
88-08-07	23:00	2881.0	1.25	40	10	10.00	3.00	10.00	8.0	6.4	24.0	230.0	1	0.00	0.00
88-08-08	05:00	2908.0	1.25	39	11	10.00	3.00	10.00	8.1	6.2	0.0	0.0	1	0.00	0.00
88-08-08	10:00	2930.0	1.25	38	10	12.00	3.00	17.00	8.0	6.1	0.0	0.0	1	0.00	0.00
88-08-08	16:00	2953.0	1.25	39	10	12.00	3.00	17.00	8.1	5.9	0.0	0.0	1	0.00	0.00
88-08-08	20:00	2963.0	1.25	38	10	10.00	3.00	13.00	8.2	7.2	0.0	0.0	1	0.00	0.00
88-08-08	23:00	2971.0	1.26	38	9	10.00	2.00	9.00	8.3	8.0	0.0	0.0	1	0.00	0.00
88-08-09	04:00	2985.0	1.26	40	11	9.00	2.00	10.00	8.1	7.0	0.0	0.0	1	0.00	0.00
88-08-09	23:59	2995.0	1.26	44	13	15.00	4.00	19.00	8.0	6.2	24.0	200.0	1	0.00	0.00
88-08-10	04:00	3006.0	1.26	42	13	15.00	4.00	18.00	7.9	5.6	0.0	0.0	1	0.00	0.00
88-08-10	10:00	3021.0	1.26	43	13	15.00	4.00	16.00	8.2	5.4	0.0	0.0	1	0.00	0.00
88-08-10	14:00	3034.0	1.26	43	12	17.00	4.00	14.00	8.2	5.3	0.0	0.0	1	0.00	0.00
88-08-10	19:00	3048.0	1.26	44	12	17.00	4.00	12.00	8.1	5.6	0.0	0.0	1	0.00	0.00
88-08-10	23:59	3061.0	1.26	42	13	16.00	3.00	10.00	8.0	6.2	21.0	200.0	1	0.00	0.00
88-08-11	04:00	3072.0	1.26	42	13	15.00	3.00	10.00	8.3	6.2	0.0	0.0	1	0.00	0.00
88-08-11	10:00	3086.0	1.26	42	13	14.00	3.00	9.00	8.2	6.1	0.0	0.0	1	0.00	0.00
88-08-11	14:00	3100.0	1.26	42	13	14.00	3.00	9.00	8.1	6.1	0.0	0.0	1	0.00	0.00
88-08-11	19:00	3116.0	1.26	41	13	14.00	3.00	8.00	8.0	6.0	0.0	0.0	1	0.00	0.00
88-08-11	23:59	3127.0	1.26	41	13	13.00	3.00	7.00	8.4	6.0	23.0	200.0	1	0.00	0.00
88-08-12	04:00	3138.0	1.26	41	13	13.00	3.00	9.00	8.3	6.0	0.0	0.0	1	0.00	0.00
88-08-12	10:00	3154.0	1.26	42	13	15.00	3.00	10.00	8.1	5.7	0.0	0.0	1	0.00	0.00
88-08-12	14:00	3158.0	1.26	45	14	16.00	3.00	12.00	8.0	5.5	0.0	0.0	1	0.00	0.00
88-08-12	18:00	3164.0	1.26	42	13	15.00	4.00	10.00	8.0	5.8	0.0	0.0	1	0.00	0.00
88-08-12	23:59	3166.0	1.26	0	13	15.00	4.00	10.00	8.0	5.8	0.0	0.0	1	0.00	0.00
88-08-13	12:00	3180.0	1.27	45	13	14.00	3.00	12.00	8.5	5.6	24.0	120.0	1	0.00	0.00
88-08-13	17:00	3196.0	1.27	43	12	14.00	3.00	13.00	8.2	5.6	0.0	0.0	1	0.00	0.00
88-08-13	23:59	3216.0	1.27	42	11	12.00	3.00	14.00	8.4	5.7	0.0	0.0	1	0.40	0.05
88-08-14	08:00	3242.0	1.27	41	12	13.00	3.00	13.00	8.3	5.4	24.0	120.0	1	0.00	0.00
88-08-14	16:00	3275.0	1.28	44	12	11.00	3.00	13.00	8.1	5.6	0.0	0.0	1	0.00	0.00
88-08-14	23:59	3291.0	1.27	0	11	11.00	3.00	13.00	8.4	5.6	0.0	0.0	1	0.20	0.05
88-08-15	08:46	3291.0	1.27	0	12	11.00	3.00	13.00	8.3	5.6	0.0	0.0	1	0.00	0.00
88-08-15	23:59	3292.0	1.27	41	11	10.00	2.00	13.00	8.3	5.5	0.0	0.0	1	0.00	0.00
88-08-16	07:00	3310.0	1.28	0	12	11.00	3.00	14.00	8.1	6.0	26.0	120.0	1	0.00	0.00
88-08-16	15:00	3344.0	1.28	44	11	10.00	3.00	15.00	8.2	6.0	0.0	0.0	1	0.00	0.00
88-08-16	23:59	3378.0	1.29	44	11	10.00	2.00	13.00	8.2	6.0	0.0	0.0	1	0.00	0.00
88-08-17	10:15	3395.0	1.30	44	12	14.00	3.00	15.00	8.3	5.6	24.0	120.0	1	0.00	0.00
88-08-17	16:00	3411.0	1.30	44	12	13.00	3.00	14.00	8.2	5.6	0.0	0.0	1	0.00	0.00
88-08-17	23:59	3434.0	1.30	43	13	14.00	3.00	14.00	8.0	5.4	0.0	0.0	1	0.00	0.00
88-08-18	07:00	3452.0	1.30	45	14	13.00	3.00	13.00	8.3	5.6	24.0	120.0	1	0.00	0.00
88-08-18	16:00	3467.0	1.30	45	13	12.00	3.00	10.00	8.1	5.4	0.0	0.0	1	0.00	0.00
88-08-18	23:59	3467.0	1.30	0	12	12.00	2.00	8.00	8.3	5.4	0.0	0.0	1	0.00	0.00

DAILY DRILLING MUD PROPERTIES, part 1

Date: 1988-11-09

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date	Time	Depth	Mud Density	Funnel Viscosity	Plastic Viscosity	Yield Point	10 sec gel	10 min gel	pH	Filtrate API	Filtrate HTHP	Filtrate temp HTHP	Cake Thick-ness	Alkal. Mud (Pm)	Alkal. Filtrate (Pf)
Unit ->		m	s.g.	sec/qt	lbs/100	lbs/100	lbs/100 sqft			ml/30min	ml/30min	deg C	32nd in	ml	ml
88-08-19	12:00	3472.0	1.30	46	13	12.00	3.00	11.00	8.2	5.6	24.0	120.0	1	0.00	0.00
88-08-19	16:00	3480.0	1.30	45	13	12.00	3.00	11.00	8.3	5.4	0.0	0.0	1	0.00	0.00
88-08-19	23:59	2492.0	1.32	44	12	12.00	2.00	9.00	8.2	5.4	0.0	0.0	1	0.00	0.00
88-08-20	07:00	3498.0	1.32	44	14	12.00	3.00	10.00	8.1	5.4	24.0	120.0	1	0.00	0.00
88-08-20	23:59	3502.0	1.32	46	13	13.00	2.00	8.00	8.0	5.6	0.0	0.0	1	0.00	0.00
88-08-21	08:00	3522.0	1.32	45	14	14.00	3.00	9.00	8.4	5.6	24.0	120.0	1	0.00	0.00
88-08-21	15:15	3539.0	1.38	45	15	14.00	3.00	9.00	8.2	5.4	0.0	0.0	1	0.00	0.00
88-08-21	23:59	3539.0	1.30	45	13	15.00	3.00	9.00	8.2	5.4	0.0	0.0	1	0.00	0.00
88-08-22	06:00	3539.0	1.32	0	14	15.00	3.00	9.00	8.1	5.4	24.0	120.0	1	0.00	0.00
88-08-22	23:59	3539.0	1.32	0	14	14.00	3.00	9.00	8.1	5.5	0.0	0.0	1	0.00	0.00
88-08-23	06:30	3539.0	1.32	0	14	15.00	3.00	8.00	8.1	5.4	24.0	120.0	1	0.00	0.00
88-08-23	23:59	3539.0	1.32	0	14	15.00	3.00	8.00	8.1	5.4	0.0	0.0	1	0.00	0.00
88-08-24	22:10	3539.0	1.32	43	14	15.00	3.00	8.00	8.2	5.4	24.0	120.0	1	0.00	0.00
88-08-25	12:40	3539.0	1.32	55	17	15.00	3.00	7.00	8.2	5.4	24.0	120.0	1	0.00	0.00
88-08-25	23:59	3539.0	1.32	0	17	15.00	3.00	7.00	8.2	5.4	0.0	0.0	1	0.00	0.00
88-08-26	10:00	3539.0	1.32	46	17	15.00	3.00	7.00	11.0	5.5	0.0	0.0	1	0.30	0.10
88-08-26	23:59	3300.0	1.32	0	17	15.00	3.00	7.00	10.5	5.4	25.0	120.0	0	0.30	0.10
88-08-27	14:00	3332.0	1.32	45	13	14.00	3.00	8.00	10.9	5.3	0.0	0.0	1	1.10	0.10
88-08-27	23:59	3345.0	1.32	47	13	14.00	3.00	7.00	10.7	5.3	24.0	120.0	1	1.10	0.10
88-08-28	16:00	3346.0	1.32	43	14	11.00	3.00	8.00	10.7	5.4	0.0	0.0	1	0.90	0.05
88-08-28	22:00	3364.0	1.32	57	21	13.00	3.00	18.00	11.7	5.5	0.0	0.0	1	1.60	0.65
88-08-28	23:59	3365.0	1.32	45	16	13.00	3.00	16.00	11.6	5.6	23.0	120.0	1	3.60	0.30
88-08-29	19:00	3371.0	1.32	52	15	15.00	4.00	29.00	11.7	6.6	28.0	120.0	1	3.80	0.40
88-08-29	23:59	3371.0	1.32	0	15	15.00	4.00	29.00	11.7	6.6	0.0	0.0	1	3.80	0.40
88-08-30	07:00	3371.0	1.32	69	12	17.00	4.00	27.00	11.8	7.2	30.0	120.0	3	3.80	0.35
88-08-30	11:00	3371.0	1.32	52	13	14.00	4.00	18.00	11.5	6.5	0.0	0.0	1	2.80	0.30
88-08-30	15:00	3373.0	1.32	45	13	12.00	3.00	8.00	11.3	5.7	25.0	120.0	1	2.20	0.20
88-08-30	19:00	3377.0	1.32	47	14	11.00	3.00	11.00	11.4	5.5	0.0	0.0	1	2.20	0.35
88-08-30	23:59	3379.0	1.32	47	14	12.00	3.00	14.00	11.5	5.3	23.0	120.0	1	2.20	0.30
88-09-01	04:00	3397.0	1.32	45	14	12.00	3.00	8.00	10.8	5.4	0.0	0.0	1	2.00	0.25
88-09-01	09:00	3402.0	1.32	45	14	12.00	2.00	5.00	10.3	5.4	24.0	120.0	1	1.70	0.30
88-09-01	23:59	3402.0	1.32	0	14	12.00	3.00	5.00	10.3	5.4	24.0	120.0	1	1.70	0.30
88-09-02	04:00	3416.0	1.32	45	15	13.00	3.00	5.00	10.2	5.4	0.0	0.0	1	1.60	0.20
88-09-02	10:00	3326.0	1.32	49	17	13.00	3.00	6.00	10.0	5.3	0.0	0.0	1	1.50	0.00
88-09-02	23:59	3426.0	1.32	0	17	13.00	3.00	6.00	10.0	5.3	21.0	120.0	1	1.50	0.00
88-09-03	10:00	3434.0	1.33	49	17	13.00	3.00	6.00	10.0	5.3	21.0	120.0	1	1.50	0.20
88-09-03	12:30	3439.0	1.32	54	19	20.00	3.00	10.00	9.9	5.2	0.0	0.0	1	1.20	0.20
88-09-03	16:00	3453.0	1.32	54	19	18.00	4.00	10.00	9.8	4.7	19.0	120.0	1	1.00	0.20
88-09-03	23:59	3463.0	1.32	53	18	18.00	4.00	10.00	9.7	4.5	19.0	120.0	1	0.90	0.20
88-09-04	05:00	3465.0	1.32	0	18	18.00	5.00	9.00	9.5	4.3	19.0	120.0	1	0.50	0.10
88-09-04	16:00	3470.0	1.32	54	19	18.00	3.00	9.00	9.7	4.3	0.0	0.0	1	0.70	0.10
88-09-04	23:59	3501.0	1.32	52	18	16.00	3.00	9.00	9.4	4.2	18.0	120.0	1	0.50	0.10
88-09-05	05:00	3533.0	1.32	0	16	15.00	4.00	8.00	9.3	4.2	0.0	0.0	1	0.50	0.40
88-09-05	14:00	3542.0	1.32	0	16	15.00	3.00	8.00	9.2	4.2	18.0	120.0	1	0.60	0.10
88-09-05	23:59	3560.0	1.32	0	16	15.00	3.00	8.00	9.0	4.2	0.0	0.0	1	0.50	0.10
88-09-06	23:59	3560.0	1.32	0	17	15.00	3.00	5.00	8.8	4.3	18.0	120.0	1	0.50	0.10
88-09-07	23:59	3560.0	1.32	0	17	15.00	3.20	8.40	8.6	4.3	18.0	120.0	1	0.40	0.10
88-09-08	23:59	3560.0	1.32	0	17	15.00	3.20	8.40	8.5	4.3	19.0	120.0	1	0.30	0.10

DAILY DRILLING MUD PROPERTIES, part 1

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date	Time	Depth	Mud Density	Funnel Viscosity	Plastic Viscosity	Yield Point	10 sec gel	10 min gel	pH	Filtrate API	Filtrate HTHP	Filtrate temp HTHP	Cake Thick-ness	Alkal. Mud (Pm)	Alkal. Filtrate (Pf)
Unit ->		m	s.g.	sec/qt	lbs/100	lbs/100	lbs/100 sqft			ml/30min	ml/30min	deg C	32nd in	ml	ml
88-09-09	23:59	3544.0	1.32	0	17	15.00	3.20	8.40	8.3	4.3	19.0	120.0	1	0.30	0.10
88-09-10	23:59	3544.0	1.32	0	16	14.00	3.20	6.30	8.4	4.3	19.0	120.0	1	0.30	0.10
88-09-12	23:59	3563.0	1.48	48	16	15.00	4.00	9.00	10.9	4.9	20.0	120.0	1	1.10	0.20
88-09-13	12:00	3600.0	1.48	48	18	14.00	4.00	9.00	10.6	4.6	17.0	120.0	1	0.90	0.20
88-09-13	23:59	3572.0	1.48	48	18	14.00	4.00	10.00	10.5	4.6	0.0	0.0	1	0.80	0.10
88-09-14	12:00	3611.0	1.48	44	20	12.00	3.00	9.00	10.1	4.5	18.0	120.0	1	0.50	0.10
88-09-15	23:59	3675.0	1.61	51	20	14.00	4.00	15.00	9.0	4.6	19.0	120.0	1	0.25	0.05
88-09-16	23:59	3732.0	1.61	54	24	15.00	4.00	11.00	8.6	4.0	17.0	120.0	1	0.15	0.05
88-09-17	23:59	3732.0	1.61	53	25	16.00	4.00	16.00	8.5	3.4	16.0	120.0	1	0.15	0.05
88-09-18	23:59	3763.0	1.61	53	27	11.00	6.00	16.00	8.9	3.8	16.0	120.0	1	0.15	0.10
88-09-19	12:00	3784.0	1.61	51	27	11.00	6.00	16.00	9.5	3.8	16.0	120.0	1	0.80	0.30
88-09-20	17:23	3806.0	1.61	54	24	8.00	3.00	11.00	9.0	4.0	17.0	120.0	1	0.60	0.05
88-09-21	23:59	3833.0	1.61	52	24	10.00	3.00	11.00	8.9	4.1	17.0	120.0	1	0.70	0.05
88-09-22	22:12	3853.0	1.61	53	21	11.00	3.00	11.00	9.0	4.6	17.0	120.0	1	0.70	0.05
88-09-23	22:30	3944.0	1.61	53	23	12.00	3.00	12.00	8.8	4.3	18.0	120.0	1	0.30	0.00
88-09-24	23:59	3944.0	1.61	0	23	12.00	3.00	12.00	8.8	4.0	17.0	120.0	1	0.30	0.00
88-09-25	23:30	3944.0	1.61	75	25	15.00	4.00	18.00	8.6	4.3	0.0	0.0	1	0.30	0.00
88-09-25	23:59	3944.0	1.61	58	20	11.00	3.00	11.00	8.7	4.0	17.0	120.0	1	0.30	0.00
88-09-26	23:59	3944.0	1.61	0	20	11.00	3.00	11.00	8.7	4.0	17.0	120.0	1	0.30	0.00
88-09-27	23:00	3944.0	1.61	0	20	11.00	3.00	11.00	8.6	4.2	17.0	120.0	1	0.30	0.00
88-09-28	12:00	3944.0	1.61	52	20	11.00	3.00	11.00	8.6	4.3	17.0	120.0	1	0.30	0.00
88-09-28	23:59	3944.0	1.61	46	20	8.00	3.00	9.00	8.6	4.3	17.0	120.0	1	0.30	0.00
88-09-29	23:59	3944.0	1.61	0	20	8.00	3.00	9.00	8.6	4.3	17.0	120.0	1	0.30	0.00
88-09-30	19:00	3944.0	1.61	0	18	9.00	4.00	16.00	8.4	4.1	20.0	120.0	1	0.30	0.05
88-10-01	23:59	3944.0	1.61	0	0	10.00	2.00	8.00	9.2	4.1	20.0	120.0	1	0.30	0.05
88-10-02		3618.0	1.61	0	20	10.00	2.00	8.00	9.0	3.7	18.0	120.0	1	0.30	0.05
88-10-03	23:00	3550.0	1.61	60	20	10.00	2.00	8.00	8.8	3.8	18.0	120.0	1	0.30	0.05
88-10-04	23:59	3944.0	1.61	0	20	12.00	2.00	8.00	9.1	3.4	19.0	120.0	1	0.25	0.05
88-10-06	23:59	3750.0	1.61	0	20	12.00	2.00	8.00	8.9	3.4	18.0	120.0	1	0.30	0.05
88-10-07	23:59	3450.0	1.61	0	20	12.00	2.00	8.00	8.8	3.5	18.0	120.0	1	0.30	0.05
88-10-08	23:59	2050.0	1.32	0	13	9.00	2.00	6.00	8.7	4.8	0.0	0.0	1	0.25	0.05
88-10-09	23:59	2050.0	1.32	0	13	9.00	2.00	6.00	8.7	4.8	0.0	0.0	1	0.30	0.05
88-10-10	23:59	2050.0	1.32	0	13	9.00	2.00	6.00	8.7	4.8	0.0	0.0	1	0.30	0.05
88-10-11	23:59	2050.0	1.32	0	13	9.00	2.00	6.00	8.6	4.8	0.0	0.0	1	0.30	0.05
88-10-12	23:59	440.0	1.31	0	11	6.00	2.00	4.00	8.6	6.5	0.0	0.0	1	0.30	0.05

DAILY DRILLING MUD PROPERTIES, part 2

Date: 1988-11-01

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date Time	Depth	Alkalinity Filtrate (Mf)	Cloride in	Cloride out	Calsium in	Calsium out	Magnesium in	Magnesium out	Sand Content	Solids Content	Oil Content	Water Content
Unit ->	m	ml	ppm	ppm	mg/l	mg/l	mg/l	mg/l	% vol	% vol	% vol	% vol
88-07-05 23:59	0.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-06 23:59	685.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-07 23:59	845.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-08 23:59	495.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-09 23:59	535.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-10 23:59	585.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-11 23:59	531.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-12 23:59	651.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-13 23:59	830.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-15 19:00	818.0	0.0	22000	0	0	0	0	0	0.0	0.9	0.0	99.1
88-07-16 14:00	818.0	0.8	21000	0	360	0	753	0	0.0	1.0	0.0	99.0
88-07-17 22:00	818.0	0.8	21000	0	360	0	753	0	0.0	1.0	0.0	99.0
88-07-18 14:00	818.0	0.7	21000	0	360	0	753	0	0.0	1.0	0.0	99.0
88-07-19 22:00	850.0	0.8	20000	20000	640	256000	826	-154305	0.0	2.1	0.0	97.9
88-07-20 06:30	1027.0	0.7	20000	20000	360	360	510	510	0.1	5.1	0.0	94.9
88-07-20 10:30	1061.0	0.7	20000	20000	360	360	510	510	1.3	4.1	0.0	95.9
88-07-20 21:00	1150.0	0.8	20000	20000	360	144000	510	-86751	0.0	4.1	0.0	95.9
88-07-21 10:30	1176.0	0.7	21000	21000	400	400	972	972	1.0	6.0	0.0	94.0
88-07-21 21:00	1205.0	0.7	21000	21000	400	400	972	972	0.7	5.0	0.0	95.0
88-07-22 07:45	1211.0	0.7	21000	21000	440	176000	948	-105705	1.0	6.0	0.0	94.0
88-07-22 15:15	1336.0	0.8	20000	20000	400	0	1021	0	0.8	6.1	0.0	93.9
88-07-22 21:00	1444.0	0.8	21000	21000	560	0	875	0	0.8	5.0	0.0	95.0
88-07-23 07:00	1538.0	0.6	21000	21000	440	440	948	948	1.0	6.0	0.0	94.0
88-07-23 12:00	1603.0	0.6	21000	0	480	0	923	0	1.3	6.0	0.0	94.0
88-07-23 21:30	1754.0	0.7	21000	0	440	0	972	0	1.2	6.0	0.0	94.0
88-07-24 09:00	1805.0	0.6	21000	0	440	0	948	0	0.8	6.0	0.0	94.0
88-07-24 21:30	1835.0	0.6	21000	0	640	0	972	0	0.8	6.0	0.0	94.0
88-07-25 08:30	1910.0	0.4	21000	0	520	0	948	0	0.5	6.0	0.0	94.0
88-07-25 15:00	1966.0	0.4	21000	0	560	0	972	0	0.5	6.0	0.0	94.0
88-07-25 21:00	1974.0	0.6	21000	0	600	0	972	0	0.5	6.0	0.0	94.0
88-07-26 07:30	1998.0	0.4	21000	0	480	0	1021	0	0.3	6.0	0.0	94.0
88-07-26 20:30	2110.0	0.4	21000	0	520	0	1021	0	0.3	6.0	0.0	94.0
88-07-27 23:30	2174.0	0.4	21000	0	640	0	899	0	0.3	6.0	0.0	94.0
88-07-28 21:00	2174.0	0.4	21000	0	600	0	851	0	0.2	6.0	0.0	94.0
88-07-29 21:00	2174.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
88-07-30 23:59	2159.0	0.4	21000	0	600	0	851	0	0.2	6.0	0.0	94.0
88-07-31 15:30	2194.0	0.4	50000	50000	800	800	365	365	0.0	4.2	0.0	95.8
88-07-31 19:30	2232.0	0.3	60000	60000	800	800	365	365	0.0	4.1	0.0	95.9
88-07-31 23:59	2271.0	0.3	60000	60000	800	800	365	365	0.0	4.1	0.0	95.9
88-08-01 04:40	2297.0	0.3	50000	50000	680	680	146	146	0.0	4.7	0.0	95.3
88-08-01 10:30	2320.0	0.3	49000	49000	680	680	146	146	0.0	4.8	0.0	95.2
88-08-02 04:15	2330.0	0.3	54000	54000	680	680	146	146	0.0	4.5	0.0	95.5
88-08-02 10:00	2375.0	0.3	55000	55000	680	680	146	146	0.0	4.4	0.0	95.6
88-08-02 23:59	2473.0	0.3	53000	53000	800	800	194	194	0.3	4.0	0.0	96.0
88-08-03 08:30	2510.0	0.3	53000	53000	720	720	243	243	0.5	5.0	0.0	95.0
88-08-03 23:59	2526.0	0.3	52000	52000	800	800	243	243	0.5	5.1	0.0	94.9
88-08-04 08:00	2613.0	1.0	53000	53000	880	880	267	267	0.5	5.0	0.0	95.0
88-08-04 14:45	2651.0	0.1	54000	54000	880	880	267	267	0.4	6.0	0.0	94.0

DAILY DRILLING MUD PROPERTIES, part 2

Date: 1988-11-01

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date Time	Depth	Alkalinity Filtrate (Mf)	Cloride in	Cloride out	Calsium in	Calsium out	Magnesium in	Magnesium out	Sand Content	Solids Content	Oil Content	Water Content
Unit ->	m	ml	ppm	ppm	mg/l	mg/l	mg/l	mg/l	% vol	% vol	% vol	% vol
88-08-04 23:59	2697.0	0.3	55000	55000	880	880	267	267	0.3	7.0	0.0	93.0
88-08-05 01:29	2733.0	0.2	60000	60000	920	920	267	267	0.4	6.7	0.0	93.3
88-08-05 11:00	2775.0	0.2	61000	61000	920	920	267	267	0.3	6.6	0.0	93.4
88-08-05 14:15	2794.0	0.2	61000	61000	880	880	243	243	0.3	6.6	0.0	93.4
88-08-05 20:00	2826.0	0.2	62000	62000	800	800	267	267	0.3	6.5	0.0	93.5
88-08-05 23:59	2843.0	0.2	62000	62000	760	760	267	267	0.3	6.5	0.0	93.5
88-08-06 20:00	2843.0	0.2	62000	62000	760	760	267	267	0.3	6.5	0.0	93.5
88-08-07 17:00	2852.0	0.2	62000	62000	760	760	267	267	0.3	6.5	0.0	93.5
88-08-07 23:00	2881.0	0.1	62000	62000	840	840	292	292	0.3	7.6	0.0	92.4
88-08-08 05:00	2908.0	0.2	62000	62000	760	760	340	340	0.3	7.6	0.0	92.4
88-08-08 10:00	2930.0	0.2	63000	63000	800	800	389	389	0.3	7.5	0.0	92.5
88-08-08 16:00	2953.0	0.2	63000	63000	800	800	389	389	0.3	7.5	0.0	92.5
88-08-08 20:00	2963.0	0.2	60000	60000	720	720	292	292	0.3	7.7	0.0	92.3
88-08-08 23:00	2971.0	0.2	58000	58000	640	640	292	292	0.3	8.9	0.0	91.1
88-08-09 04:00	2985.0	0.2	59000	59000	640	640	292	292	0.3	8.8	0.0	91.2
88-08-09 23:59	2995.0	0.2	60000	60000	760	760	267	267	0.3	8.7	0.0	91.3
88-08-10 04:00	3006.0	0.2	62000	62000	720	720	292	292	0.3	8.6	0.0	91.4
88-08-10 10:00	3021.0	0.2	62000	62000	680	680	292	292	0.3	8.6	0.0	91.4
88-08-10 14:00	3034.0	0.2	62000	62000	680	680	316	316	0.3	7.6	0.0	92.4
88-08-10 19:00	3048.0	0.2	62000	62000	720	720	292	292	0.3	7.6	0.0	92.4
88-08-10 23:59	3061.0	0.2	60000	60000	640	640	243	243	0.3	8.7	0.0	91.3
88-08-11 04:00	3072.0	0.2	60000	60000	640	640	243	243	0.3	8.7	0.0	91.3
88-08-11 10:00	3086.0	0.2	62000	62000	680	680	243	243	0.3	8.6	0.0	91.4
88-08-11 14:00	3100.0	0.2	64000	64000	720	720	243	243	0.3	8.5	0.0	91.5
88-08-11 19:00	3116.0	0.2	66000	66000	720	720	267	267	0.3	8.4	0.0	91.6
88-08-11 23:59	3127.0	0.2	64000	64000	720	720	267	267	0.3	8.5	0.0	91.5
88-08-12 04:00	3138.0	0.2	63000	63000	720	720	267	267	0.3	8.6	0.0	91.4
88-08-12 10:00	3154.0	0.2	65000	65000	720	720	267	267	0.3	8.4	0.0	91.6
88-08-12 14:00	3158.0	0.2	70000	70000	720	720	243	243	0.3	8.1	0.0	91.9
88-08-12 18:00	3164.0	0.2	70000	70000	720	720	243	243	0.3	8.1	0.0	91.9
88-08-12 23:59	3166.0	0.2	70000	70000	720	720	243	243	0.3	8.1	0.0	91.9
88-08-13 12:00	3180.0	0.3	69000	69000	520	520	316	316	0.0	9.2	0.0	90.8
88-08-13 17:00	3196.0	0.3	68000	68000	520	520	292	292	0.0	9.3	0.0	90.7
88-08-13 23:59	3216.0	0.3	67000	67000	480	480	279	279	0.0	9.4	0.0	90.6
88-08-14 08:00	3242.0	0.3	69000	69000	480	480	316	316	0.1	9.2	0.0	90.8
88-08-14 16:00	3275.0	0.3	70000	70000	480	480	389	389	0.1	9.2	0.0	90.8
88-08-14 23:59	3291.0	0.3	70000	70000	520	520	365	365	0.1	9.2	0.0	90.8
88-08-15 08:46	3291.0	0.3	70000	0	520	0	365	0	0.1	9.2	0.0	90.8
88-08-15 23:59	3292.0	0.5	68000	68000	400	400	292	292	0.1	9.3	0.0	90.7
88-08-16 07:00	3310.0	0.3	68000	0	520	0	243	0	0.1	9.3	0.0	90.7
88-08-16 15:00	3344.0	0.3	70000	70000	480	480	243	243	0.2	9.2	0.0	90.8
88-08-16 23:59	3378.0	0.3	68000	68000	440	440	243	243	0.2	9.3	0.0	90.7
88-08-17 10:15	3395.0	0.3	70000	70000	480	480	243	243	0.1	9.2	0.0	90.8
88-08-17 16:00	3411.0	0.3	70000	70000	440	440	243	243	0.1	9.2	0.0	90.8
88-08-17 23:59	3434.0	0.3	70000	70000	480	480	243	243	0.1	9.2	0.0	90.8
88-08-18 07:00	3452.0	0.3	67000	67000	400	400	243	243	0.3	11.5	0.0	88.5
88-08-18 16:00	3467.0	0.3	70000	70000	440	440	243	243	0.3	10.2	0.0	89.8
88-08-18 23:59	3467.0	0.3	70000	0	440	0	243	0	0.3	10.2	0.0	89.8

DAILY DRILLING MUD PROPERTIES, part 2

Page: 3
Date: 1988-11-01

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date	Time	Depth	Alkalinity Filtrate (Mf)	Cloride in	Cloride out	Calsium in	Calsium out	Magnesium in	Magnesium out	Sand Content	Solids Content	Oil Content	Water Content
Unit ->		m	ml	ppm	ppm	mg/l	mg/l	mg/l	mg/l	% vol	% vol	% vol	% vol
88-08-19	12:00	3472.0	0.3	70000	70000	400	400	243	243	0.3	10.2	0.0	89.8
88-08-19	16:00	3480.0	0.3	70000	70000	400	400	219	219	0.3	10.2	0.0	89.8
88-08-19	23:59	2492.0	0.3	68000	68000	400	400	243	243	0.3	10.4	0.0	89.6
88-08-20	07:00	3498.0	0.3	70000	70000	400	400	243	243	0.3	11.3	0.0	88.7
88-08-20	23:59	3502.0	0.3	70000	70000	400	400	243	243	0.2	10.2	0.0	89.8
88-08-21	08:00	3522.0	0.0	70000	70000	400	400	219	219	0.3	10.2	0.0	89.8
88-08-21	15:15	3539.0	0.0	71000	71000	400	400	243	243	0.3	11.2	0.0	88.8
88-08-21	23:59	3539.0	0.0	69000	69000	400	400	243	243	0.3	9.2	0.0	90.8
88-08-22	06:00	3539.0	0.3	68000	0	400	0	243	0	0.3	10.4	0.0	89.6
88-08-22	23:59	3539.0	0.3	67000	0	400	0	243	0	0.2	10.4	0.0	89.6
88-08-23	06:30	3539.0	0.4	68000	0	400	0	243	0	0.3	10.4	0.0	89.6
88-08-23	23:59	3539.0	0.3	68000	0	400	0	243	0	0.3	10.4	0.0	89.6
88-08-24	22:10	3539.0	0.2	68000	68000	400	400	243	243	0.3	10.4	0.0	89.6
88-08-25	12:40	3539.0	0.3	69000	69000	320	320	243	243	0.3	10.3	0.0	89.7
88-08-25	23:59	3539.0	0.3	69000	69000	320	320	243	243	0.3	10.3	0.0	89.7
88-08-26	10:00	3539.0	0.4	69000	69000	320	320	243	243	0.3	10.3	0.0	89.7
88-08-26	23:59	3300.0	0.4	69000	69000	320	320	243	243	0.3	10.3	0.0	89.7
88-08-27	14:00	3332.0	0.4	70000	70000	600	600	49	49	0.3	10.2	0.0	89.8
88-08-27	23:59	3345.0	0.4	70000	70000	600	600	49	49	0.2	10.2	0.0	89.8
88-08-28	16:00	3346.0	0.3	70000	70000	440	440	24	24	0.5	10.2	0.0	89.8
88-08-28	22:00	3364.0	3.4	70000	70000	80	80	49	49	0.5	10.2	0.0	89.8
88-08-28	23:59	3365.0	0.8	70000	70000	320	320	0	0	0.5	10.2	0.0	89.8
88-08-29	19:00	3371.0	0.6	70000	70000	400	400	0	0	0.5	10.2	0.0	89.8
88-08-29	23:59	3371.0	0.6	70000	70000	400	400	0	0	0.5	10.2	0.0	89.8
88-08-30	07:00	3371.0	0.6	70000	70000	400	400	0	0	0.5	10.2	0.0	89.8
88-08-30	11:00	3371.0	0.6	70000	70000	320	320	0	0	0.5	10.2	0.0	89.8
88-08-30	15:00	3373.0	0.4	70000	70000	200	200	0	0	0.5	10.2	0.0	89.8
88-08-30	19:00	3377.0	0.6	70000	70000	200	200	0	0	0.5	10.2	0.0	89.8
88-08-30	23:59	3379.0	0.6	70000	70000	240	240	0	0	0.5	10.2	0.0	89.8
88-09-01	04:00	3397.0	0.6	70000	70000	160	160	0	0	0.5	10.2	0.0	89.8
88-09-01	09:00	3402.0	0.7	70000	70000	80	80	0	0	0.5	10.2	0.0	89.8
88-09-01	23:59	3402.0	0.7	70000	70000	80	80	0	0	0.5	10.2	0.0	89.8
88-09-02	04:00	3416.0	0.4	68000	68000	200	200	0	0	0.5	10.4	0.0	89.6
88-09-02	10:00	3326.0	0.2	66000	66000	400	400	0	0	0.5	10.5	0.0	89.5
88-09-02	23:59	3426.0	0.2	66000	66000	400	400	0	0	0.5	10.5	0.0	89.5
88-09-03	10:00	3434.0	0.6	66000	66000	400	400	0	0	0.5	10.5	0.0	89.5
88-09-03	12:30	3439.0	0.6	68000	68000	240	240	0	0	0.3	10.4	0.0	89.6
88-09-03	16:00	3453.0	0.6	67000	67000	240	240	0	0	0.3	10.4	0.0	89.6
88-09-03	23:59	3463.0	0.6	67000	67000	240	240	0	0	0.3	10.4	0.0	89.6
88-09-04	05:00	3465.0	0.6	66000	0	240	0	0	0	0.3	85.4	0.0	14.6
88-09-04	16:00	3470.0	0.5	67000	67000	200	200	0	0	0.3	10.4	0.0	89.6
88-09-04	23:59	3501.0	0.5	67000	67000	200	200	0	0	0.3	10.4	0.0	89.6
88-09-05	05:00	3533.0	0.5	68000	0	100	0	0	0	0.3	10.4	0.0	89.6
88-09-05	14:00	3542.0	0.6	68000	0	100	0	24239	0	0.3	10.4	0.0	89.6
88-09-05	23:59	3560.0	0.5	68000	0	100	0	0	0	0.0	10.4	0.0	89.6
88-09-06	23:59	3560.0	0.4	37000	0	100	0	0	0	0.0	10.1	0.0	89.9
88-09-07	23:59	3560.0	0.5	68000	0	100	0	0	0	0.0	10.4	0.0	89.6
88-09-08	23:59	3560.0	0.4	68000	0	100	0	0	0	0.0	10.4	0.0	89.6

DAILY DRILLING MUD PROPERTIES, part 2

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date	Time	Depth	Alkalinity Filtrate (Mf)	Cloride in	Cloride out	Calsium in	Calsium out	Magnesium in	Magnesium out	Sand Content	Solids Content	Oil Content	Water Content
Unit ->		m	ml	ppm	ppm	mg/l	mg/l	mg/l	mg/l	% vol	% vol	% vol	% vol
88-09-09	23:59	3544.0	0.4	68000	0	100	0	0	0	0.0	10.4	0.0	89.6
88-09-10	23:59	3544.0	0.4	68000	0	100	0	0	0	0.0	10.4	0.0	89.6
88-09-12	23:59	3563.0	1.0	65000	65000	160	160	24	24	0.3	15.7	0.0	84.3
88-09-13	12:00	3600.0	0.7	65000	65000	160	160	0	0	0.2	15.7	0.0	84.3
88-09-13	23:59	3572.0	0.5	65000	65000	240	240	0	0	0.2	15.7	0.0	84.3
88-09-14	12:00	3611.0	0.5	63000	63000	200	200	0	0	0.2	15.8	0.0	84.2
88-09-15	23:59	3675.0	0.3	62000	62000	280	280	0	0	0.2	19.0	0.0	81.0
88-09-16	23:59	3732.0	0.3	55000	55000	280	280	0	0	0.2	19.4	0.0	80.6
88-09-17	23:59	3732.0	0.3	55000	55000	280	280	0	0	0.2	19.4	0.0	80.6
88-09-18	23:59	3763.0	0.3	53000	53000	320	320	0	0	0.0	19.5	0.0	80.5
88-09-19	12:00	3784.0	0.7	53000	53000	280	280	0	0	0.2	19.5	0.0	80.5
88-09-20	17:23	3806.0	0.5	51000	51000	320	320	0	0	0.2	19.6	0.0	80.4
88-09-21	23:59	3833.0	0.4	51000	51000	360	360	0	0	0.2	19.6	0.0	80.4
88-09-22	22:12	3853.0	0.4	51000	51000	360	360	0	0	0.4	19.6	0.0	80.4
88-09-23	22:30	3944.0	0.3	51000	51000	320	320	0	0	0.4	19.6	0.0	80.4
88-09-24	23:59	3944.0	0.3	51000	51000	320	320	0	0	0.4	19.6	0.0	80.4
88-09-25	23:30	3944.0	0.2	51000	51000	320	320	0	0	0.4	19.6	0.0	80.4
88-09-25	23:59	3944.0	0.2	51000	51000	320	320	0	0	0.3	19.6	0.0	80.4
88-09-26	23:59	3944.0	0.2	51000	51000	320	320	0	0	0.3	19.6	0.0	80.4
88-09-27	23:00	3944.0	0.2	51000	51000	320	320	0	0	0.3	19.6	0.0	80.4
88-09-28	12:00	3944.0	0.2	51000	51000	320	320	0	0	0.3	19.6	0.0	80.4
88-09-28	23:59	3944.0	0.2	51000	51000	320	320	0	0	0.3	19.6	0.0	80.4
88-09-29	23:59	3944.0	0.2	51000	51000	320	320	0	0	0.3	19.6	0.0	80.4
88-09-30	19:00	3944.0	0.5	45000	45000	280	280	0	0	0.3	19.9	0.0	80.1
88-10-01	23:59	3944.0	0.5	45000	0	280	0	0	0	0.3	80.5	0.0	19.5
88-10-02		3618.0	0.5	43000	0	240	0	24	0	0.3	80.5	0.0	19.5
88-10-03	23:00	3550.0	0.4	43000	43000	240	240	24	24	0.3	20.0	0.0	80.0
88-10-04	23:59	3944.0	0.5	42000	0	200	0	12	0	0.3	21.1	0.0	78.9
88-10-06	23:59	3750.0	0.4	42000	0	200	0	0	0	0.3	21.1	0.0	78.9
88-10-07	23:59	3450.0	0.6	40000	0	200	0	0	0	0.3	21.2	0.0	78.8
88-10-08	23:59	2050.0	0.6	30000	0	360	0	0	0	0.0	11.6	1.0	87.4
88-10-09	23:59	2050.0	0.6	30000	0	360	0	0	0	0.0	11.6	1.0	87.4
88-10-10	23:59	2050.0	0.6	30000	0	360	0	0	0	0.0	11.6	1.0	87.4
88-10-11	23:59	2050.0	0.6	30000	0	360	0	0	0	0.0	11.6	0.0	88.4
88-10-12	23:59	440.0	0.5	27000	0	320	0	0	0	0.0	10.7	0.0	89.3

DAILY DRILLING MUD PROPERTIES, part 3

Date: 1988-11-01

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date Time	Depth	Excess Lime	Methylene Blue Capasity	ES	Oil-Water Ratio	Activity	KCl in	KCl out
Unit ->	m	ppb	ppb	volt			ppb	ppb
88-07-05 23:59	0.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-06 23:59	685.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-07 23:59	845.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-08 23:59	495.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-09 23:59	535.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-10 23:59	585.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-11 23:59	531.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-12 23:59	651.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-13 23:59	830.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-15 19:00	818.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-16 14:00	818.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-17 22:00	818.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-18 14:00	818.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-19 22:00	850.0	0.00	12.50	0	0.00	0.000	0.0	0.0
88-07-20 06:30	1027.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-07-20 10:30	1061.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-07-20 21:00	1150.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-07-21 10:30	1176.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-07-21 21:00	1205.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-07-22 07:45	1211.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-07-22 15:15	1336.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-07-22 21:00	1444.0	0.00	7.50	0	0.00	0.000	0.0	0.0
88-07-23 07:00	1538.0	0.00	10.00	0	0.00	0.000	0.0	0.0
88-07-23 12:00	1603.0	0.00	10.00	0	0.00	0.000	0.0	0.0
88-07-23 21:30	1754.0	0.00	12.50	0	0.00	0.000	0.0	0.0
88-07-24 09:00	1805.0	0.00	12.50	0	0.00	0.000	0.0	0.0
88-07-24 21:30	1835.0	0.00	12.50	0	0.00	0.000	0.0	0.0
88-07-25 08:30	1910.0	0.00	12.50	0	0.00	0.000	0.0	0.0
88-07-25 15:00	1966.0	0.00	15.00	0	0.00	0.000	0.0	0.0
88-07-25 21:00	1974.0	0.00	15.00	0	0.00	0.000	0.0	0.0
88-07-26 07:30	1998.0	0.00	15.00	0	0.00	0.000	0.0	0.0
88-07-26 20:30	2110.0	0.00	15.00	0	0.00	0.000	0.0	0.0
88-07-27 23:30	2174.0	0.00	15.00	0	0.00	0.000	0.0	0.0
88-07-28 21:00	2174.0	0.00	12.50	0	0.00	0.000	0.0	0.0
88-07-29 21:00	2174.0	0.00	0.00	0	0.00	0.000	0.0	0.0
88-07-30 23:59	2159.0	0.00	12.50	0	0.00	0.000	0.0	0.0
88-07-31 15:30	2194.0	0.00	5.00	0	0.00	0.000	23665.0	23665.0
88-07-31 19:30	2232.0	0.00	5.00	0	0.00	0.000	23665.0	23665.0
88-07-31 23:59	2271.0	0.00	5.00	0	0.00	0.000	23665.0	23665.0
88-08-01 04:40	2297.0	0.00	5.00	0	0.00	0.000	23665.0	23665.0
88-08-01 10:30	2320.0	0.00	5.00	0	0.00	0.000	23665.0	23665.0
88-08-02 04:15	2330.0	0.00	5.00	0	0.00	0.000	23665.0	23665.0
88-08-02 10:00	2375.0	0.00	5.00	0	0.00	0.000	23665.0	23665.0
88-08-02 23:59	2473.0	0.00	7.50	0	0.00	0.000	23665.0	23665.0
88-08-03 08:30	2510.0	0.00	7.50	0	0.00	0.000	23665.0	23665.0
88-08-03 23:59	2526.0	0.00	7.50	0	0.00	0.000	23139.1	23139.1
88-08-04 08:00	2613.0	0.00	10.00	0	0.00	0.000	22613.2	22613.2
88-08-04 14:45	2651.0	0.00	10.00	0	0.00	0.000	22613.2	22613.2

DAILY DRILLING MUD PROPERTIES, part 3

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker

Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date Time	Depth	Excess Lime	Methylene Blue Capasity	ES	Oil-Water Ratio	Acti-vity	KCl in	KCl out
Unit ->	m	ppb	ppb	volt			ppb	ppb
88-08-04 23:59	2697.0	0.00	10.00	0	0.00	0.000	23139.1	23139.1
88-08-05 01:29	2733.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-05 11:00	2775.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-05 14:15	2794.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-05 20:00	2826.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-05 23:59	2843.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-06 20:00	2843.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-07 17:00	2852.0	0.00	10.00	0	0.00	0.000	23665.0	23665.0
88-08-07 23:00	2881.0	0.00	10.00	0	0.00	0.000	23665.0	23665.0
88-08-08 05:00	2908.0	0.00	10.00	0	0.00	0.000	23665.0	23665.0
88-08-08 10:00	2930.0	0.00	12.50	0	0.00	0.000	24716.7	24716.7
88-08-08 16:00	2953.0	0.00	12.50	0	0.00	0.000	24716.7	24716.7
88-08-08 20:00	2963.0	0.00	12.50	0	0.00	0.000	22087.3	22087.3
88-08-08 23:00	2971.0	0.00	12.50	0	0.00	0.000	22087.3	22087.3
88-08-09 04:00	2985.0	0.00	12.50	0	0.00	0.000	22087.3	22087.3
88-08-09 23:59	2995.0	0.00	12.50	0	0.00	0.000	22087.3	22087.3
88-08-10 04:00	3006.0	0.00	12.50	0	0.00	0.000	21561.4	21561.4
88-08-10 10:00	3021.0	0.00	12.50	0	0.00	0.000	23665.0	23665.0
88-08-10 14:00	3034.0	0.00	12.50	0	0.00	0.000	26294.4	26294.4
88-08-10 19:00	3048.0	0.00	12.50	0	0.00	0.000	23665.0	23665.0
88-08-10 23:59	3061.0	0.00	10.00	0	0.00	0.000	21561.4	21561.4
88-08-11 04:00	3072.0	0.00	10.00	0	0.00	0.000	22613.2	22613.2
88-08-11 10:00	3086.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-11 14:00	3100.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-11 19:00	3116.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-11 23:59	3127.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-12 04:00	3138.0	0.00	10.00	0	0.00	0.000	23665.0	23665.0
88-08-12 10:00	3154.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-12 14:00	3158.0	0.00	12.50	0	0.00	0.000	26294.4	26294.4
88-08-12 18:00	3164.0	0.00	12.50	0	0.00	0.000	26294.4	26294.4
88-08-12 23:59	3166.0	0.00	12.50	0	0.00	0.000	26294.4	26294.4
88-08-13 12:00	3180.0	0.00	10.00	0	0.00	0.000	26294.4	26294.4
88-08-13 17:00	3196.0	0.00	10.00	0	0.00	0.000	26294.4	26294.4
88-08-13 23:59	3216.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-14 08:00	3242.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-14 16:00	3275.0	0.00	10.00	0	0.00	0.000	24190.9	24190.9
88-08-14 23:59	3291.0	0.00	10.00	0	0.00	0.000	24190.9	24190.9
88-08-15 08:46	3291.0	0.00	10.00	0	0.00	0.000	24190.9	0.0
88-08-15 23:59	3292.0	0.00	10.00	0	0.00	0.000	24190.9	24190.9
88-08-16 07:00	3310.0	0.00	10.00	0	0.00	0.000	23665.0	0.0
88-08-16 15:00	3344.0	0.00	10.00	0	0.00	0.000	0.0	24716.7
88-08-16 23:59	3378.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-17 10:15	3395.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-17 16:00	3411.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-17 23:59	3434.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-18 07:00	3452.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-18 16:00	3467.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-18 23:59	3467.0	0.00	10.00	0	0.00	0.000	24716.7	0.0

DAILY DRILLING MUD PROPERTIES, part 3

Date: 1988-11-01

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date Time	Depth	Excess Lime	Methylene Blue Capasity	ES	Oil-Water Ratio	Acti-vity	KCl in	KCl out
Unit ->	m	ppb	ppb	volt			ppb	ppb
88-08-19 12:00	3472.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-19 16:00	3480.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-19 23:59	2492.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-20 07:00	3498.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-20 23:59	3502.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-21 08:00	3522.0	0.00	10.00	0	0.00	0.000	24716.7	24716.7
88-08-21 15:15	3539.0	0.00	10.00	0	0.00	0.000	25242.6	25242.6
88-08-21 23:59	3539.0	0.00	10.00	0	0.00	0.000	22613.2	22613.2
88-08-22 06:00	3539.0	0.00	8.75	0	0.00	0.000	22613.2	0.0
88-08-22 23:59	3539.0	0.00	8.75	0	0.00	0.000	22613.2	0.0
88-08-23 06:30	3539.0	0.00	8.75	0	0.00	0.000	23665.0	0.0
88-08-23 23:59	3539.0	0.00	8.75	0	0.00	0.000	23665.0	0.0
88-08-24 22:10	3539.0	0.00	8.75	0	0.00	0.000	23665.0	23665.0
88-08-25 12:40	3539.0	0.00	8.75	0	0.00	0.000	22613.2	22613.2
88-08-25 23:59	3539.0	0.00	8.75	0	0.00	0.000	22613.2	22613.2
88-08-26 10:00	3539.0	0.00	8.75	0	0.00	0.000	23665.0	23665.0
88-08-26 23:59	3300.0	0.00	8.75	0	0.00	0.000	23665.0	23665.0
88-08-27 14:00	3332.0	0.00	8.75	0	0.00	0.000	23665.0	23665.0
88-08-27 23:59	3345.0	0.00	8.75	0	0.00	0.000	23665.0	23665.0
88-08-28 16:00	3346.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-28 22:00	3364.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-28 23:59	3365.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-29 19:00	3371.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-29 23:59	3371.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-30 07:00	3371.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-30 11:00	3371.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-30 15:00	3373.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-30 19:00	3377.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-08-30 23:59	3379.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-09-01 04:00	3397.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-09-01 09:00	3402.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-09-01 23:59	3402.0	0.00	8.75	0	0.00	0.000	25242.6	25242.6
88-09-02 04:00	3416.0	0.00	7.50	0	0.00	0.000	25242.6	25242.6
88-09-02 10:00	3326.0	0.00	7.50	0	0.00	0.000	25242.6	25242.6
88-09-02 23:59	3426.0	0.00	7.50	0	0.00	0.000	25242.6	25242.6
88-09-03 10:00	3434.0	0.00	7.50	0	0.00	0.000	25242.6	25242.6
88-09-03 12:30	3439.0	0.00	7.50	0	0.00	0.000	25242.6	25242.6
88-09-03 16:00	3453.0	0.00	7.50	0	0.00	0.000	25242.6	25242.6
88-09-03 23:59	3463.0	0.00	7.50	0	0.00	0.000	24716.7	24716.7
88-09-04 05:00	3465.0	0.00	7.50	0	0.00	0.000	24716.7	0.0
88-09-04 16:00	3470.0	0.00	7.50	0	0.00	0.000	24716.7	24716.7
88-09-04 23:59	3501.0	0.00	7.50	0	0.00	0.000	24716.7	24716.7
88-09-05 05:00	3533.0	0.00	7.50	0	0.00	0.000	22613.2	0.0
88-09-05 14:00	3542.0	0.00	7.50	0	0.00	0.000	24716.7	0.0
88-09-05 23:59	3560.0	0.00	7.50	0	0.00	0.000	24190.9	0.0
88-09-06 23:59	3560.0	0.00	21.50	0	0.00	0.000	23665.0	0.0
88-09-07 23:59	3560.0	0.00	23.00	0	0.00	0.000	24190.9	0.0
88-09-08 23:59	3560.0	0.00	23.00	0	0.00	0.000	22613.2	0.0

DAILY DRILLING MUD PROPERTIES, part 3

Date: 1988-11-01

ll no: 35/8-3 Spud date: 1988-07-06 Rig name: Treasure Scout Engineers: Bengt Havnegjerde Oddvar Birkeland Olaf Skjeggesta
Roy Marker
Tom Nordby

erator: Norwegian Gulf Exploration Co. Days to TD: 71 Warehouse:

ntractor: Wil. Wilhelmsen Total Depth: 3944.00 m Total Cost: 2625361.3 Currency: NOK

Date	Time	Depth	Excess Lime	Methylene Blue Capasity	ES	Oil-Water Ratio	Acti-vity	KCl in	KCl out
Unit ->		m	ppb	ppb	volt			ppb	ppb
88-09-09	23:59	3544.0	0.00	23.00	0	0.00	0.000	22613.2	0.0
88-09-10	23:59	3544.0	0.00	23.00	0	0.00	0.000	21035.5	0.0
88-09-12	23:59	3563.0	0.00	7.50	0	0.00	0.000	21035.5	21035.5
88-09-13	12:00	3600.0	0.00	10.00	0	0.00	0.000	19983.8	19983.8
88-09-13	23:59	3572.0	0.00	10.00	0	0.00	0.000	19983.8	19983.8
88-09-14	12:00	3611.0	0.00	10.00	0	0.00	0.000	19983.8	19983.8
88-09-15	23:59	3675.0	0.00	10.00	0	0.00	0.000	19983.8	19983.8
88-09-16	23:59	3732.0	0.00	10.00	0	0.00	0.000	17354.3	17354.3
88-09-17	23:59	3732.0	0.00	1888.28	0	0.00	0.000	17354.3	17354.3
88-09-18	23:59	3763.0	0.00	81.37	0	0.00	0.000	15776.6	15776.6
88-09-19	12:00	3784.0	0.00	81.37	0	0.00	0.000	15776.6	15776.6
88-09-20	17:23	3806.0	0.00	10.00	0	0.00	0.000	15776.6	15776.6
88-09-21	23:59	3833.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-22	22:12	3853.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-23	22:30	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-24	23:59	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-25	23:30	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-25	23:59	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-26	23:59	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-27	23:00	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-28	12:00	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-28	23:59	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-29	23:59	3944.0	0.00	8.75	0	0.00	0.000	15776.6	15776.6
88-09-30	19:00	3944.0	0.00	7.50	0	0.00	0.000	14199.0	14199.0
88-10-01	23:59	3944.0	0.00	37.51	0	0.00	0.000	14199.0	0.0
88-10-02		3618.0	0.00	37.51	0	0.00	0.000	14199.0	0.0
88-10-03	23:00	3550.0	0.00	7.50	0	0.00	0.000	14199.0	14199.0
88-10-04	23:59	3944.0	0.00	7.50	0	0.00	0.000	14199.0	0.0
88-10-06	23:59	3750.0	0.00	7.50	0	0.00	0.000	14199.0	0.0
88-10-07	23:59	3450.0	0.00	7.50	0	0.00	0.000	0.0	0.0
88-10-08	23:59	2050.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-10-09	23:59	2050.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-10-10	23:59	2050.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-10-11	23:59	2050.0	0.00	5.00	0	0.00	0.000	0.0	0.0
88-10-12	23:59	440.0	0.00	5.00	0	0.00	0.000	12621.3	0.0

3. RFT Summary

Two Repeat Formation tester (RFT) surveys were conducted during which 32 pressures were attempted with 19 formation pressures measured. Two fluid samples were taken.

Run 1	:	well depth 3562 m
Date	:	7 September 1988
Mud Weight	:	1.32 g/cc
Hole size	:	12 1/4"

Thirteen RFT pressure measurements were attempted through the Heather sand sequence with 12 pressures recorded, Table 6.

Sample recovery and analysis:

Depth	:	3467 m
2 3/4 gallon chamber	:	Recovery at 1000 psi, 1 1/2 cuft. gas. + 10,000 cc fluid (filtrate) plus trace of oil.
1 gallon chamber:		at 1800 psi, 2 cuft. gas plus 4000 cc fluid.
Fluid	:	Density 1.08 gm/cc
		Nitrate 116 ppm (nitrate while drilling 180 ppm)
		Resistivity 0.068 ohmm at 64^{o}F (17.8^{o}C)

Gas analysis by Exlog chromatograph on rig:

C_1	59,480 ppm
C_2	11,324 ppm
C_3	6,281 ppm
i C_4	550 ppm
n C_4	1,476 ppm

Reference Table 7 for gas analysis by West-Lab A/S.

Run 2	:	well depth 3947 m
Date	:	27 September 1988
Mud Weight	:	1.61 gm/cc
Hole size	:	8 1/2"

Nineteen RFT pressure measurements were attempted in the Brent Group sands with 7 pressures recorded, Table 8.

Sample recovery and analysis:

Depth	:	3859.5m
2 3/4 gallon chamber	:	Recovered at 1000 psi, 10,000 cc fluid (mud filtrate)
Resistivity	:	0.092 ohmm at 58°F (14.4°C)
1 gallon chamber:		3700 cc fluid (filtrate and formation water)
Resistivity	:	0.098 ohmm at 58°F (14.4°C)
Nitrate	:	16 ppm (nitrate in mud while drilling 352 ppm)

No gas or oil was recovered.

TABLE 6

FORMATION PRESSURE TEST DATA

35/8-3 - RFT RUN 1 - 07/09/1988

Test Number	Depth MD(m)	Hydrostatic Pressure HP(Psia)	Formation Pressure HP(Psia)	Remarks
1	3441.00	6488.3	5786.0	
2	3461.54	6528.1	5791.5	
3	3467.00	6537.0	5793.4	
4	3472.54	6548.1	5956.7	
5	3472.05	6547.5	5796.8	
6	3477.54	6558.6	5799.7	
7	3481.53	6565.5	5801.9	
8	3489.03	6579.2	5807.9	
9	3493.05	6586.5	5807.5	
10	3498.54	-	-	Failed
11	3505.03	6608.0	5814.6	
12	3507.05	6614.2	5816.7	
13	3467.06	6534.9	5790.0	Sample Recovered

TABLE 8

FORMATION PRESSURE TEST DATA

35/8-3 - RFT RUN 2 - 27/09/1988

Test Number	Depth MD(m)	Depth TVD(m)	Hydrostatic Pressure HP(Psia)	Formation Pressure HP(Psia)	Remarks
1	3814.0	3812.5	8661.0	-	Seal Failure
2	3815.5	3814.0	8670.1	-	Seal Failure
3	3831.0	3827.6	8704.3	-	Seal Failure
4	3849.99	3844.2	8747.8	8265.2	Super Charged
5	3856.5	3852.5	8758.2	8239.2	Fair
6	3859.5	3855.4	8763.0	8241.6	Fair
7	3862.0	3857.9	8768.1	8286.5	Super Charged
8	3867.8	3863.5	8783.5	8280.1	Super Charged
9	3877.5	3873.0		-	Seal Failure
10	3856.5	3852.5	8750.0	8240.6	Fair
11	3859.5	3855.4	8761.6	8243.4	Fair
12	3861.39	3857.4	8765.3	8245.6	Good ✓
13	3861.5	3857.4	8763.2	8245.4	Fair
14	3862.0	3857.9	8762.0	8246.4	Fair
15	3884.0	3879.3	8819.2	8352.9	Super Charged
16	3889.0	3884.2	8826.0	8304.6	Tight
17	3898.5	3893.5	8844.0	-	Seal Failure
18	3916.0	3911.0	8885.6	-	Seal Failure
19	3916.5	3911.5	8885.5	-	Seal Failure
	3859.5	3855.4	8756.2	8243.3	Fluid Sample Taken

PMB/JW-WP/TAB2/gf

GEOCHEMICAL REPORT

NORWEGIAN GULF EXPLORATION A/S

35/8-3 (PLUS SIDETRACK)

NORTH SEA

NORWAY

CONTENTS

INTRODUCTION

Geochemical analyses were performed on the Norwegian Gulf well 35/8-3, located in the northern North Sea, offshore Norway. Geochemical analyses were performed on the interval 900 - 3944m

Analyses were performed on both the original hole and the sidetrack section; the respective depth intervals are as follows:

Original hole : 900 - 3557m
Sidetrack : 3390 - 3944m

ANALYTICAL PROGRAMME

Cuttings samples for geochemical analysis were collected at fifty metre intervals to a depth of 2150m. Thereafter the interval was reduced to thirty metres, down to 3300m. From 3300m to total depth, cuttings samples were analysed at ten metre intervals. A set of sidewall cores from the Cretaceous - Jurassic section and conventional cores were also analysed.

Following sample washing & preparation, the samples were submitted for Total Organic Carbon (TOC) determinations. This was followed by Rock Eval pyrolysis analysis where TOC values exceeded 0.5%. In total 194 TOC and 175 pyrolysis analyses were carried out. After inspection of these data, selected samples were submitted for visual kerogen analysis (including TAI) and vitrinite reflectance determinations. The vitrinite reflectance measurements were made on kerogen isolates.

EXLOG

EXPLORATION LOGGING GEOCHEMICAL DATA PRINT

FOR : NORWEGIAN GULF EXPLORATION CO
WELL : 35/8-3

Printed at : 11:49
: 15 Dec 1988

	SOURCE BED EVALUATION							FREE HYDROCARBS	
DEPTH m	TOC %wt	S2 mg/g	T Max deg C	S2/S3 H:O	S2/TOC HI	S3/TOC OI	S3 mg/g	S1 mg/g	S1/(S1+S2)
Cuttings Samples									
900.0	1.67	2.56	417	1.1	153	139	2.32	.51	.17
950.0	1.34	2.92	417	2.0	218	107	1.44	1.71	.37
1000.0	1.58	2.60	420	1.7	165	94	1.49	.90	.26
1050.0	.78	1.30	414	1.4	167	122	.95	.50	.28
1100.0	1.34	1.66	422	1.4	124	89	1.19	.59	.26
1150.0	.98	1.33	428	1.5	136	89	.87	.56	.30
1200.0	.49	0.00	0	0.0	0	0	0.00	0.00	0.00
1250.0	.81	1.48	431	2.0	183	91	.74	.28	.16
1300.0	.40	0.00	0	0.0	0	0	0.00	0.00	0.00
1350.0	.51	.93	0	1.8	182	104	.53	.74	.44
1400.0	.36	0.00	0	0.0	0	0	0.00	0.00	0.00
1450.0	.43	0.00	0	0.0	0	0	0.00	0.00	0.00
1500.0	.78	1.15	427	1.1	147	140	1.09	.37	.24
1550.0	.44	0.00	0	0.0	0	0	0.00	0.00	0.00
1600.0	.36	0.00	0	0.0	0	0	0.00	0.00	0.00
1650.0	.61	.54	446	1.0	89	92	.56	.14	.21
1700.0	.58	.91	431	1.8	157	88	.51	.18	.17
1750.0	.74	.78	426	1.0	105	105	.78	.24	.24
1800.0	.33	0.00	0	0.0	0	0	0.00	0.00	0.00
1850.0	.63	.76	428	.5	121	256	1.61	.16	.17
1900.0	.69	.81	432	.4	117	291	2.01	.24	.23
1950.0	.60	.76	441	.5	127	238	1.43	.13	.15
2000.0	.39	0.00	0	0.0	0	0	0.00	0.00	0.00
2050.0	.51	.73	429	.3	143	453	2.31	.23	.24
2100.0	.59	.71	439	.3	120	393	2.32	.24	.25
2150.0	.66	.78	405	.3	118	412	2.72	.49	.39
2174.0	.68	.61	413	.2	90	390	2.65	.42	.41
2190.0	.60	.26	0	.1	43	413	2.48	.14	.35
2220.0	.58	.28	0	.1	48	412	2.39	.14	.33
2250.0	.54	.18	0	.1	33	424	2.29	.10	.36
2280.0	.70	.27	421	.1	39	380	2.66	.09	.25
2310.0	.77	.47	428	.1	61	431	3.32	.16	.25
2340.0	.96	.64	429	.4	67	190	1.82	.17	.21
2370.0	.85	.60	428	.3	71	247	2.10	.13	.18
2400.0	.92	.50	429	.3	54	174	1.60	.12	.19
2430.0	.75	.49	430	.2	65	393	2.95	.11	.18
2460.0	.67	.50	433	.2	75	428	2.87	.10	.17
2490.0	.64	.29	425	.1	45	334	2.14	.07	.19
2520.0	.68	.32	425	.1	47	322	2.19	.10	.24
2550.0	.75	.33	423	.1	44	323	2.42	.13	.28

EXLOG

EXPLORATION LOGGING GEOCHEMICAL DATA PRINT

FOR : NORWEGIAN GULF EXPLORATION CO
WELL : 35/8-3

Printed at : 13:34
: 15 Dec 1988

	SOURCE BED EVALUATION							FREE HYDROCARBS	
DEPTH m	TOC %wt	S2 mg/g	T Max deg C	S2/S3 H:O	S2/TOC HI	S3/TOC OI	S3 mg/g	S1 mg/g	S1/(S1+S2)
Cuttings Samples									
2580.0	.62	.16	0	.1	26	382	2.37	.10	.38
2610.0	.64	.11	411	.1	17	170	1.09	.08	.42
2640.0	.66	.18	408	.1	27	253	1.67	.09	.33
2670.0	.69	.27	422	.2	39	223	1.54	.12	.31
2700.0	.77	.24	425	.1	31	243	1.88	.08	.25
2730.0	.92	.33	424	.2	36	226	2.09	.11	.25
2760.0	.99	.26	426	.1	26	198	1.96	.09	.26
2790.0	.73	.15	428	.1	20	244	1.79	.07	.32
2820.0	.88	.30	428	.1	34	256	2.25	.09	.23
2850.0	.72	.23	425	.1	32	260	1.87	.07	.23
2881.0	.41	0.00	0	0.0	0	0	0.00	0.00	0.00
2910.0	.83	.30	426	.1	36	262	2.18	.10	.25
2940.0	.66	.12	0	.1	18	255	1.67	.06	.33
2970.0	.49	0.00	0	0.0	0	0	0.00	0.00	0.00
3000.0	.48	0.00	0	0.0	0	0	0.00	0.00	0.00
3030.0	.59	.30	438	.2	51	259	1.52	.11	.27
3060.0	.64	.23	436	.1	36	277	1.78	.07	.23
3090.0	.76	.44	433	.3	58	208	1.59	.10	.19
3120.0	.77	.31	437	.2	40	184	1.42	.07	.18
3150.0	.78	.34	441	.2	44	210	1.64	.06	.15
3180.0	.62	.24	446	.1	39	450	2.79	.08	.25
3210.0	.95	.36	438	.2	38	193	1.83	.08	.18
3240.0	1.10	.90	437	.4	82	188	2.06	.10	.10
3270.0	.82	.61	426	.2	74	393	3.23	.12	.16
3300.0	.62	.61	436	.3	98	340	2.11	.09	.13
3310.0	.50	.37	429	.3	74	229	1.14	.08	.18
3320.0	.76	.70	443	.4	92	233	1.77	.12	.15
3330.0	.86	1.28	442	1.0	148	147	1.27	.13	.09
3340.0	3.42	12.34	433	17.9	361	20	.69	1.29	.09
3350.0	3.85	11.64	435	18.2	303	17	.64	1.41	.11
3360.0	3.21	9.44	430	8.3	294	36	1.14	1.43	.13
3370.0	2.60	5.45	438	7.5	210	28	.73	.74	.12
3380.0	2.86	6.20	434	8.2	216	27	.76	1.05	.14
3390.0	3.21	7.19	432	6.1	224	36	1.17	1.32	.16
3400.0	4.55	8.90	438	7.9	196	25	1.12	1.51	.15
3410.0	3.47	4.22	441	2.8	122	44	1.53	1.01	.19
3420.0	3.79	5.32	444	3.7	140	38	1.43	1.25	.19
3430.0	3.45	4.71	441	3.9	136	35	1.22	1.14	.19
3440.0	1.34	1.99	433	2.8	149	54	.72	.58	.23
3450.0	.76	.89	445	1.6	117	72	.55	.26	.23

EXPLORATION LOGGING GEOCHEMICAL DATA PRINT

FOR : NORWEGIAN GULF EXPLORATION CO
WELL : 35/8-3

Printed at : 13:45
: 15 Dec 1988

	SOURCE BED EVALUATION							FREE HYDROCARBS	
DEPTH m	TOC %wt	S2 mg/g	T Max deg C	S2/S3 H:O	S2/TOC HI	S3/TOC OI	S3 mg/g	S1 mg/g	S1/(S1+S2)
Cuttings Samples									
3460.0	1.53	1.98	443	2.6	130	49	.75	.59	.23
3470.0	.84	1.17	441	2.3	139	61	.51	.29	.20
3480.0	.45	0.00	0	0.0	0	0	0.00	0.00	0.00
3490.0	1.08	1.81	439	3.5	168	48	.52	.32	.15
3500.0	1.01	1.49	442	2.4	147	60	.61	.28	.16
3510.0	1.21	2.19	442	5.0	182	37	.44	.51	.19
3520.0	.85	1.16	443	2.9	136	47	.40	.38	.25
3530.0	.99	1.25	444	4.3	126	29	.29	.36	.22
3540.0	1.51	1.83	444	2.5	121	48	.73	.48	.21

EXLOG

EXPLORATION LOGGING GEOCHEMICAL DATA PRINT

FOR : NORWEGIAN GULF EXPLORATION CO
WELL : 35/8-3

Printed at : 14:10
: 15 Dec 1988

	SOURCE BED EVALUATION							FREE HYDROCARBS	
DEPTH m	TOC %wt	S2 mg/g	T Max deg C	S2/S3 H:O	S2/TOC HI	S3/TOC OI	S3 mg/g	S1 mg/g	S1/(S1+S2)
Sidewall Core Samples									
2180.5	.31	0.00	0	0.0	0	0	0.00	0.00	0.00
2207.5	.78	.40	0	.8	51	63	.49	.08	.17
2230.0	.59	.10	0	.2	17	75	.44	.04	.29
2312.5	.76	.34	0	.8	45	57	.43	.07	.17
2353.0	.83	.17	436	.3	21	67	.55	.07	.29
2406.0	.97	.49	425	.6	50	92	.89	.15	.23
2448.5	.97	.82	432	.9	84	96	.93	.19	.19
2536.5	.60	.11	0	.1	18	236	1.43	.11	.50
2800.5	.30	0.00	0	0.0	0	0	0.00	0.00	0.00
3055.0	.49	0.00	0	0.0	0	0	0.00	0.00	0.00
3097.5	.69	.24	0	.2	35	176	1.22	.21	.47
3216.2	2.63	5.44	427	20.9	207	10	.26	.26	.05
3220.0	3.63	3.86	436	4.4	106	24	.87	.28	.07
3275.0	.77	.32	0	.3	42	130	1.00	.33	.51
3353.5	3.88	10.85	430	19.0	280	15	.57	1.68	.13
3388.0	6.22	17.86	431	38.0	287	8	.47	2.42	.12
3393.5	7.51	16.87	431	56.2	225	4	.30	3.51	.17
3401.0	3.18	5.09	436	5.6	160	29	.91	1.29	.20
3463.0	6.88	11.96	432	18.4	174	9	.65	2.66	.18
3511.0	3.82	6.36	439	6.0	167	28	1.06	1.25	.16
3548.0	4.53	9.14	435	12.0	202	17	.76	1.22	.12
3557.0	6.68	8.05	439	8.5	120	14	.95	1.29	.14

EXLOG

EXPLORATION LOGGING GEOCHEMICAL DATA PRINT

FOR : NORWEGIAN GULF EXPLORATION CO
WELL : 35/8-3 (SIDETRACK)

Printed at : 10:12
: 15 Dec 1988

	SOURCE BED EVALUATION							FREE HYDROCARBS	
DEPTH m	TOC %wt	S2 mg/g	T Max deg C	S2/S3 H:O	S2/TOC HI	S3/TOC OI	S3 mg/g	S1 mg/g	S1/(S1+S2)
Cuttings Samples									
3380.0	1.46	3.45	442	1.4	236	168	2.46	.56	.14
3410.0	3.72	5.60	441	8.5	150	18	.66	1.28	.19
3450.0	1.62	2.13	435	4.3	131	30	.49	.55	.21
3460.0	2.03	2.76	435	7.7	136	18	.36	.77	.22
3470.0	1.17	2.07	438	2.7	178	66	.77	.81	.28
3500.0	.46	0.00	0	0.0	0	0	0.00	0.00	0.00
3530.0	1.12	1.84	442	5.9	164	28	.31	.64	.26
3540.0	1.35	1.65	443	4.6	122	27	.36	.50	.23
3550.0	2.32	3.04	444	5.3	131	25	.57	.68	.18
3560.0	2.47	2.81	439	4.0	114	29	.71	.52	.16
3570.0	1.44	2.23	438	.7	154	217	3.13	.52	.19
3580.0	1.79	2.36	442	.7	132	186	3.33	.57	.19
3590.0	1.99	1.88	444	.5	95	186	3.70	.46	.20
3600.0	1.27	1.29	440	.3	102	367	4.65	.33	.20
3610.0	1.00	1.14	438	.4	114	290	2.90	.37	.25
3620.0	.94	1.01	440	.5	107	212	2.00	.35	.26
3630.0	1.00	.78	439	.2	78	369	3.69	.27	.26
3640.0	1.73	3.46	440	2.6	201	77	1.32	.73	.17
3650.0	1.90	3.82	440	3.0	201	67	1.27	.82	.18
3660.0	2.14	4.71	440	3.5	220	62	1.33	.91	.16
3670.0	1.98	4.39	442	4.1	222	54	1.06	.87	.17
3680.0	1.44	3.61	441	2.1	250	116	1.68	.77	.18
3690.0	1.84	3.32	441	1.9	181	96	1.76	.71	.18
3700.0	2.06	4.87	439	2.9	236	83	1.70	1.10	.18
3710.0	2.27	4.11	439	2.0	181	92	2.10	.84	.17
3720.0	2.19	3.95	437	2.2	180	82	1.79	.84	.18
3730.0	1.94	2.77	439	1.6	143	88	1.71	.65	.19
3740.0	1.96	2.33	440	1.1	119	108	2.12	.52	.18
3750.0	2.13	1.93	440	1.1	91	81	1.73	.60	.24
3760.0	3.91	5.30	439	1.7	136	80	3.11	.86	.14
3770.0	2.11	2.82	440	1.4	134	98	2.07	.64	.18
3780.0	2.07	2.16	439	1.0	105	106	2.19	.59	.21
3790.0	3.03	2.75	438	.9	91	103	3.11	.66	.19
3800.0	3.69	3.35	440	1.1	91	84	3.11	.80	.19
3810.0	2.15	1.49	441	.6	69	120	2.58	.45	.23
3820.0	.78	.88	442	1.1	113	104	.81	.36	.29
3830.0	1.18	1.49	441	1.7	126	75	.88	.48	.24
3840.0	2.12	2.83	441	2.2	133	61	1.29	.63	.18
3850.0	1.15	1.30	444	1.3	113	85	.98	.17	.12
3860.0	.76	.68	444	1.3	89	68	.52	.11	.14
3870.0	2.70	3.46	443	7.1	128	18	.49	.31	.08
3880.0	1.12	2.16	443	9.4	193	21	.23	.22	.09
3890.0	.59	.58	442	.6	98	176	1.04	.11	.16
3900.0	.85	.93	445	1.5	109	75	.64	.13	.12
3910.0	1.01	1.10	443	1.4	109	81	.81	.14	.11
3920.0	.59	.38	443	.5	64	130	.77	.07	.16
3930.0	.96	.62	442	.5	65	127	1.22	.08	.11
3940.0	1.91	1.33	440	.5	70	127	2.42	.07	.05
3944.0	1.85	1.88	444	1.2	101	83	1.54	.22	.10

EXLOG

EXPLORATION LOGGING GEOCHEMICAL DATA PRINT

FOR : NORWEGIAN GULF EXPLORATION CO
WELL : 35/8-3 (SIDETRACK)

Printed at : 10:33
: 15 Dec 1988

	SOURCE BED EVALUATION							FREE HYDROCARBS	
DEPTH m	TOC %wt	S2 mg/g	T Max deg C	S2/S3 H:O	S2/TOC HI	S3/TOC OI	S3 mg/g	S1 mg/g	S1/(S1+S2)
Core Samples									
3830.0	4.75	13.53	440	29.4	285	10	.46	2.04	.13
3831.0	3.01	8.49	434	70.8	282	4	.12	.73	.08
3831.5	1.62	1.95	446	3.2	120	38	.61	.37	.16
3832.0	1.47	2.12	448	11.2	144	13	.19	.34	.14
3833.0	2.28	4.02	439	13.9	177	13	.29	.70	.15
3833.5	6.63	18.34	441	43.7	277	6	.42	2.06	.10
3834.5	1.88	2.60	435	1.4	138	102	1.91	.64	.20
3835.0	3.56	6.93	437	4.2	194	46	1.64	1.17	.14
3835.5	1.55	2.03	442	2.7	131	48	.75	.43	.17
3836.0	2.65	4.35	439	11.4	164	14	.38	.69	.14
3836.5	3.19	4.69	436	16.8	147	9	.28	.85	.15
3837.5	4.21	8.68	434	11.9	206	17	.73	1.43	.14
3838.0	1.05	1.61	439	3.4	154	46	.48	.36	.18
3838.5	3.78	8.72	442	33.5	231	7	.26	1.05	.11
3839.0	5.02	11.03	444	58.1	220	4	.19	1.47	.12
3839.5	3.49	11.65	442	58.3	334	6	.20	1.38	.11
3840.5	4.75	9.81	446	37.7	206	5	.26	1.02	.09
3841.0	14.74	30.59	443	82.7	208	3	.37	3.54	.10
3842.5	13.99	31.34	437	61.5	224	4	.51	4.50	.13
3843.5	27.26	58.72	436	57.6	215	4	1.02	8.31	.12
3844.0	1.22	2.30	446	2.9	189	64	.78	.29	.11
3845.0	.97	1.83	446	10.8	188	17	.17	.33	.15
3846.0	5.82	14.62	440	38.5	251	7	.38	2.42	.14

EXLOG

EXPLORATION LOGGING GEOCHEMICAL DATA PRINT

FOR : NORWEGIAN GULF EXPLORATION CO
WELL : 35/8-3 (SIDETRACK)

Printed at : 14:41
: 20 Dec 1988

	SOURCE BED EVALUATION							FREE HYDROCARBS	
DEPTH m	TOC %wt	S2 mg/g	T Max deg C	S2/S3 H:O	S2/TOC HI	S3/TOC OI	S3 mg/g	S1 mg/g	S1/(S1+S2)
Sidewall Core Samples									
3575.0	2.60	3.78	444	4.8	145	30	.78	.65	.15
3750.0	2.57	4.80	448	15.5	187	12	.31	.94	.16
3775.0	3.07	5.50	446	8.2	179	22	.67	1.16	.17
3800.0	3.46	3.28	445	.5	95	179	6.21	1.01	.24
3818.5	0.00	.25	0	.8	0	0	.30	.47	.65
3850.0	0.00	.38	0	.4	0	0	.89	1.24	.77
3856.5	0.00	.60	0	1.9	0	0	.32	1.64	.73
3862.0	0.00	.18	0	2.6	0	0	.07	.80	.82
3868.0	.18	0.00	0	0.0	0	0	0.00	0.00	0.00
3884.0	.47	0.00	0	0.0	0	0	0.00	0.00	0.00
3886.0	.23	0.00	0	0.0	0	0	0.00	0.00	0.00
3896.5	.31	0.00	0	0.0	0	0	0.00	0.00	0.00
3930.0	1.59	0.00	0	0.0	0	0	0.00	0.00	0.00
3940.0	4.18	0.00	0	0.0	0	0	0.00	0.00	0.00
3942.0	.73	0.00	0	0.0	0	0	0.00	0.00	0.00

Due to lack of sample material TOC determinations were performed at 3818.5 - 3862.0m, and pyrolysis at 3930 - 3942.0m

Sidewall core data

Please note that some of the samples received were extremely small. Hence, in some cases it was not possible to perform both pyrolysis and TOC determinations.

VISUAL KEROGEN ANALYSIS

Depth (m)	Thermal Maturity %Ro	Thermal Maturity TAI	Kerogen Description (% Composition) Amorphous	Alginite	Exinite	Vitrinite	Inertinite	Amount Fluor-escing (%)	Remarks
900	0.25	1.4	90	10	tr	tr	tr	100	
1100	0.32	1.6	85	10	tr	tr	tr	95	
1250	0.37	1.6	85	10	tr	tr	tr	95	
1500	0.36	1.8	65	5	10	5	15	80	
1650	-	2.0	75	tr	5	5	15	80	
1850	0.43	2.0	tr	80	5	10	55	35	

VISUAL KEROGEN ANALYSIS

Depth (m)	Thermal Maturity %Ro	TAI	Kerogen Description (% Composition) Amorphous	Alginite	Exinite	Vitrinite	Inertinite	Amount Fluor-escing (%)	Remarks
2050	0.47	2.0	5	5	10	5	75	20	Vitrinite particles are strongly oxidised
2220	0.55 (?)	2.0	70	10	tr	5	15	10	Abnormally high reflectance values may reflect oxidation
2340	0.57 (?)	2.2	15	20	tr	10	55	20	As above
2520	0.58 (?)	2.2	tr	30	tr	tr	70	30	Abnormally high reflectance values may reflect oxidation
2670	0.60	2.2	5	10	5	tr	80	15	As above
2820	0.62	2.2	tr	25	5	5	65	25	Kerogen is slightly oxidised, reflectance values may not reflect the actual level of maturity

VISUAL KEROGEN ANALYSIS

Depth (m)	Thermal Maturity %Ro	TAI	Kerogen Description (% Composition) Amorphous	Alginite	Exinite	Vitrinite	Inertinite	Amount Fluor-escing (%)	Remarks
2970	0.66 (?)	2.2	70	10	tr	tr	30	10	Abnormally high reflectance values may reflect oxidation
3120	0.65 (?)	2.2	tr	15	tr	tr	85	15	Kerogen is strongly oxidised, reflectance may overestimate actual degree of maturity
3240	0.58	2.2	15	15	5	tr	65	20*	*Observations obscurred by contamination
3330	0.63	-	-	-	-	-	-	-	Sample consists almost entirely of out of place material, either cavings or lignite additive
3380	0.51	2.2	80	5	5	tr	10	90	
3400	0.62	2.2	70	10	tr	5	15	80	

VISUAL KEROGEN ANALYSIS

Depth (m)	Thermal Maturity %Ro	Thermal Maturity TAI	Kerogen Description (% Composition) Amorphous	Alginite	Exinite	Vitrinite	Inertinite	Amount Fluor-escing (%)	Remarks
3540	0.63	-	60	5*	0	10	30	35	*Severly degraded, identification uncertain. Spores/pollen absent; kerogen colour and fluorescence suggest a TAI equivalent ranging from 2.0 - 2.2
3550	0.59	2.2	30	5	15	15	35	20	
3690	0.55	2.2	90	5	tr	5	tr	95	
3843.5	0.68	2.2	0	0	tr	100*	tr	100	*Strongly fluorescent desmocollinite; may have a greater liquid hydrogen generation capacity than more typical vitrinite
3944	0.66	2.4	60	10*	5	15	10	70	*Severely degraded; identifcation uncertain

Vitrinte Reflectance Summary Chart

Sample Number	Depth (m)	No. of Readings	Standard Deviation	Minimum (%Ro)	Maximum (%Ro)	Average (%Ro)
88081 - 001	900	45	0.051	0.15	0.35	0.25*
		5	0.040	0.41	0.52	0.46
88081 - 002	1100	31	0.044	0.24	0.40	0.32*
88081 - 003	1250	50	0.055	0.20	0.47	0.37*
88081 - 004	1500	50	0.039	0.28	0.43	0.36*
88081 - 005	1650	2	-	0.24	0.34	0.29
		3	0.012	0.55	0.58	0.57
88081 - 006	1850	14	0.062	0.33	0.52	0.43*
		2	-	0.67	0.71	0.69
88081 - 007	2050	19	0.049	0.40	0.57	0.47*
		11	0.065	0.60	0.80	0.68
88081 - 008	2220	16	0.041	0.48	0.64	0.55*
		9	0.040	0.65	0.80	0.73
88081 - 009	2340	5	0.029	0.29	0.37	0.34
		48	0.058	0.42	0.64	0.57*
		7	0.077	0.73	0.97	0.79
88081 - 010	2520	6	0.053	0.26	0.39	0.34
		59	0.087	0.41	0.72	0.58*
		5	0.045	0.77	0.91	0.83
88081 - 011	2670	37	0.060	0.45	0.74	0.60*
		4	0.050	0.81	0.94	0.86
88081 - 012	2820	57	0.084	0.46	0.78	0.62*
		3	0.005	0.84	0.85	0.85
88081 - 013	2970	3	0.017	0.35	0.39	0.37
		25	0.104	0.45	0.82	0.66*
		2	-	0.97	1.08	1.03
88081 - 014	3120	18	0.076	0.52	0.79	0.65*
		17	0.106	0.82	1.20	0.96
88081 - 015	3240	48	0.079	0.43	0.74	0.58*
		12	0.059	0.75	0.92	0.81

*Denotes vitrinite population interpreted as indigenous

Vitrinte Reflectance Summary Chart

Sample Number	Depth (m)	No. of Readings	Standard Deviation	Minimum (%Ro)	Maximum (%Ro)	Average (%Ro)
88081 - 016	3330	25	0.056	0.27	0.49	0.39
		39	0.067	0.50	0.77	0.63*
		6	0.062	0.80	0.96	0.87
88081 - 019	3380	48	0.056	0.39	0.63	0.51*
		12	0.065	0.65	0.86	0.73
88081 - 017	3400	7	0.017	0.38	0.43	0.40
		59	0.093	0.45	0.79	0.62*
		4	0.019	0.84	0.89	0.87
88081 - 018	3540	60	0.059	0.51	0.77	0.63*
88081 - 020	3550	60	0.065	0.44	0.71	0.59*
88081 - 021	3690	60	0.073	0.42	0.72	0.55*
88081 - 022	3843.5	43	0.037	0.33	0.53	0.45
		37	0.058	0.55	0.81	0.68*
88081 - 023	3944	13	0.061	0.24	0.43	0.34
		67	0.091	0.46	0.82	0.66*

* Denotes vitrinite population interpreted as indigenous